

Part-II
Desktop Publishing (Optional)

Sastri/ B.A 2nd Year
Course/Paper.2

INTRODUCTION TO DTP
&
INTRODUCTION TO PAGEMAKER



CENTER OF DISTANCE & ONLINE EDUCATION

(Formerly Directorate of Distance Education)

NATIONAL SANSKRIT UNIVERSITY :: TIRUPATI-517 507 (A.P)

(Erstwhile Rashtriya Sanskrit Vidyapeetha, Tirupati)

Unit - I

1.0.Objective**1.2. Introduction****1.3. Creating a worksheet****1.4. Menus****1.5. Formatting****1.6. Finding and Replacing the data****1.7. Summary****1.8. SAQ**

1.0. Objective

Students should be able to identify the MS Excel screen layout and its components

1.2. Introduction

MS Excel is a powerful spread sheet program through which you can create tables of any kind. These tables may contain numeric values, text data or formulas. You can use Excel to automate simple tasks like giving lists or to create sophisticated analysis tables for calculating the future trends in the stock market.

Excel features

Conditional Formatting: You can format cells/data according to condition and can get glimpse of entire data within seconds.

VBA, Macros & automation: This would make computer work for you. You can automate mundane job for you.

Pivot Tables: Worried about how you'll interpret data. Let excel do it for you. This is to must know feature of excel.

Lookup Formulas: This formula is deadly. Combination of it with match, index can help in doing wonders.

Power Pivot: It helps in querying the huge data effectively. Has been introduced in recent version.

Add Header and Footer

MS Excel allows us to keep header and footer in our spreadsheet document.

Find and Replace Command

MS Excel allows us to find the needed data (text and number) in the workbook and also replace the existing data with a new one.

Password protection

It allows user to protect their workbooks by using password from unauthorized access to their information.

Data filtering

Filtering is a quick and easy way to find and work with a subset of data in a range. A filtered range displays only the rows that meet the criteria you specify for a column. MS Excel provides two commands for filtering ranges:

- Auto filter: which includes filter by selection, for simple criteria
- Advanced filter: for more complex criteria

Data sorting

Data sorting is the process of arranging data in some logical order. MS Excel allows us to sort data either in ascending or descending order.

Built in formulae

MS Excel has got many built – in formulae for sum, average, minimum, etc. We can use those formulae as per our needs.

Automatically edits the result

MS Excel automatically edits the result if any changes are made in any of the cell.

1.3. Creating a Worksheet

Creating new worksheet: To create new worksheet following steps should be implemented

- Click the file tab.
- Click new
- Under templates, click New from existing.

- In the New from Existing Workbook dialog box.
- Click the workbook, and then click Create New.
- One's it is done, it can be saved by clicking on ctrl+s

Saving worksheet in Excel

Save As

To save your work often or you risk losing your Excel data if the computer crashes or the power goes out. When you save a workbook for the first time, you see the Save As dialog box. The appearance and functionality of the Save As dialog box varies depending on whether you are running Excel 2007, 2010 and so on. Follow these steps to save your workbook when running Excel 2007.

- Click the Office button and choose Save. The Save As dialog box appears.
- Click the Browse Folders button (with the triangle pointing downward) to expand the Save As dialog box if necessary.
- When you expand the Save As dialog box, the dialog box displays the Navigation Pane, where you can select folders listed in the Favorite Links or Folders sections.
- In the Navigation Pane, select the folder in which you want to save the file. Type a descriptive name for the file in the File Name box.
- Click the Save button to save the file in the selected folder.

Save :Follow these steps to save your workbook when running Excel 2007 on Windows XP:

- Click the Save In drop-down list button and select the folder in which you want to save the file.
- Type a descriptive name for the file in the File name box.
- Click the Save button to save the file in the selected folder.

1.4. Menus

Excel Menus

Along the top of the screen is the Menu Bar. Each word represents a different menu of Excel commands. If a command is also on the toolbar then the

toolbar icon appears alongside it. Some commands will also feature the keyboard shortcut alongside it.

Excel Toolbars

Excel displays the Standard and Formatting toolbars by default. These are found below the menu bar at the top of the screen and provide a faster method of performing commands.

(i) The Standard Toolbar

(ii) The Formatting Toolbar

(iii) Picture Toolbar

(iv) Chart Toolbar

SAVING, OPENING AND CLOSING WORKBOOK

C r e a t i n g a n e w w o r k b o o k

- On starting Excel 2003 you will be presented with a new blank workbook named *Book1*.

The new workbook will contain 3 sheets identified by the sheet tabs in the bottom left of the worksheet.

- To create a new blank workbook, click the new icon on the Standard toolbar or press

Ctrl + N.

- Every time a new blank workbook is created it is named *Book1*, *Book2*, *Book3* and so on

until saved under a more appropriate name.

S a v i n g a W o r k b o o k

- It is good practice to save your workbook as soon as you can, and then to regularly save it to protect against data loss.

- To save your document click **Save** under the **File** menu or press **Ctrl + S**. Select a location to save the workbook in and an appropriate name and click **Save**.

O p e n i n g a n E x i s t i n g W o r k b o o k

If you have a workbook that you have already been working on, you can open it from Excel. You

can do so in three ways;

- Click **File > Open**

- Click the Open toolbar icon

- Press **Ctrl + O**

Closing Excel and the workbook: There are 3 ways to close a workbook:

- Click **File > Close**
- Click the lower **X** in the top right corner of the window
- Or Press **Ctrl + W**

These methods will close the workbook and leave Excel open.

There are also 3 ways to exit Excel:

- Click **File > Exit**
- Click the upper **X** in the top right corner of the window
- Or press **Alt + F4**

These methods will close Excel and all open workbooks.

Entering and Editing Data:

To enter data into Excel, click on the cell, type in your data and press Enter.

After pressing Enter the cell below the current one then becomes the active cell. Other alternatives are:

Tab key: Enters the data and the cell to the right of the current cell becomes the active cell

Arrow keys: Enters the data and the cell dependent on the direction of the arrow key pressed

becomes the active cell

Mouse click: Enters the data and the cell clicked becomes the active cell

Esc key: Cancels the entry

Adding, Deleting, Labeling Worksheet:

When you open a new workbook, or add new worksheets to an existing workbook, Excel uses a generic name for each sheet. Sheet1, Sheet2, Sheet3, and so on.

Adding/Inserting a worksheet

➤ To insert a new worksheet in front of an existing worksheet, select the existing worksheet

and then, click **Home > click on Insert** option in cells group > select **Insert Sheet** option

- Click **File > Open**
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To change worksheet tab color

➤ One way is - In Excel, to change worksheet tab color select the worksheet tab whose tab color you wish to change. Click the “Home” tab in the Ribbon then click the “Format” button in the “Cells” button group. Then roll your mouse pointer down to the “Tab Color” command. In the side menu that appears, then click the color you want to apply to the worksheet tab.

➤ The other way is – right click on sheet tab and choose “Tab color” option”, select any color from color theme.

Copy of a worksheet

➤ We can create a copy of the worksheet by selecting copy option from shortcut menu of sheet tab.

➤ We can also move worksheet from its position (reposition). Right click on sheet tab and choose move option from shortcut menu.

INSERTION AND DELETION OF ROWS**Inserting rows on a worksheet**

- Select the row, or a cell in the row below where you want the inserted row to appear. For example, if you wanted to insert a row between rows 7 and 8, select row 8.

- Click **Insert > Rows**

Inserting columns on a worksheet

- Select the column, or a cell in the column to the right of where you want the inserted column to appear. For example, if you wanted to insert a column between columns C and D, select column D.

- Click **Insert > Columns**

Inserting cells on a worksheet

- Select the cell, or the range of cells where you want to insert the new cells. Select the same number of cells as you would like to insert

- Click **Insert > Cells**

- In the dialogue box that appears select the direction in which to shift the surrounding cells

Deleting rows, columns, and cells

- Select the rows or columns to be deleted.

- Click **Edit > Delete**

- The rows or columns are deleted and all other rows and columns are shifted up and to the left

To delete data in a cell

- Select the cell or cells to be deleted.
- Click Edit > Delete
- In the dialogue box that appears select the direction in which to shift the surrounding cells

Note: Pressing the delete key only removes the contents from the cells and will not delete the rows, columns, or cells.

AUTO FILL

An amazing and often underutilized feature of Excel is the Auto fill. Auto fill is the use of the fill handle to copy data and sequences across a range of cells.

To fill a range of cells:

- Select the cell with the content you wish to copy
- Point at the black square that appears in the bottom right corner of the cell, until your mouse pointer becomes the fill handle
- Click and drag in the direction of the range you wish to fill.
- Excel will copy the contents of the cell across the range that you select.

This will also work with dates.

- This feature becomes very powerful when used with cells containing formulas. A lot of time can be saved by copying formulas across a range of cells.

Printing a Workbook:

Select the worksheet or worksheets that you want to print. On the Page Layout tab, in the Page Setup group,

➤ **Page**

Orientation – is the data wide? Landscape might work better. Tall? Try portrait

Scaling – I always use the fit to option, if it will fit on one page, great. If not, play with the pages until it makes sense

Paper size – if 8.5×11” is too small, maybe the data will fit nicely on one legal size page.

➤ To specify Margins

To use predefined margins, click Normal, Wide, or Narrow. To specify custom page margins, click Custom Margins and then—in the Top, Bottom, Left, and Right boxes—enter the margin sizes that you want.

➤ **To set header or footer margins**, click **Custom Margins**, and then enter a new margin size in the **Header** or **Footer** box. Setting either the header or footer margins changes the distance from the top edge of the paper to the header or from the bottom edge of the paper to the footer

➤ To center the page horizontally or vertically, click Custom Margins and then, under Center on page, select the horizontally or vertically check box.

➤ **To use print titles:**

Imagine how difficult it would be to read a worksheet if the column and row headings only appeared on the first page. The **Print Titles** command allows you to select specific rows and columns to appear on each page.

1. Click the **Page Layout** tab.
2. Select the **Print Titles** command.
3. The **Page Setup** dialog box appears. Click the icon at the end of the **Rows to repeat at top** field.
4. Your mouse becomes the small **selection arrow** . Click the rows you want to appear on each printed page. The **Rows to repeat at top** dialog box will record your selection.
5. Click the icon at the end of the **Rows to repeat at top** field.
6. Repeat for **Columns to repeat at left**, if necessary.
7. Click **OK**. You can go to **Print Preview** to see how each page will look when printed.

➤ **To insert a break:**

1. Click the **Page Layout** tab.
2. Determine the placement of the break by clicking the **row below**, **cell below**, or **column to the right** of where you want the break to appear. For example, select column C, and a break will appear after column B.
3. Select the **Insert Page Break** command from the **Breaks** drop-down menu.
4. The break is inserted. You can go to **Print Preview** to confirm that it

appears in the correct place on the page.

➤ **To print active sheets:**

If you have multiple worksheets in your workbook, you'll need to decide if you want to print the entire workbook or specific worksheets. Excel gives you the option to **Print Active Sheets**.

A worksheet is considered active if it is **selected**.

1. Select the worksheets you want to print. To print multiple worksheets, click the first worksheet, hold down the **Ctrl** key, then click the other worksheets you want to select.

2. Click the **File** tab.

3. Select **Print** to access the **Print pane**.

4. Select **Print Active Sheets** from the **print range** drop-down menu.

5. Click the **Print** button.

(iii) To print the entire workbook:

1. Click the **File** tab.

2. Select **Print** to access the **Print pane**.

3. Select **Print Entire Workbook** from the **print range** drop-down menu.

4. Click the **Print** button.

(iv) To print a selection or set the print area:

Printing a **selection**—sometimes called setting the **print area**—lets you choose which cells to

print, as opposed to the entire worksheet.

1. Select the cells you want to print.

2. Click the **File** tab.

3. Select **Print** to access the **Print pane**.

4. Select **Print Selection** from the **print range** drop-down menu

5. You can see what your selection will look like on the page in **Print**

Preview.

6. Click the **Print** button.

(v) To fit a worksheet on one page:

1. Click the **File** tab.

2. Select **Print** to access the **Print pane**.

3. Select **Fit Sheet on One Page** from the **scaling** drop-down menu.

4. Your worksheet is reduced in size until it fits on one page. Remember that if it is scaled too small, it might be difficult to read.

Formatting a Worksheet:

Cell: In Excel, the intersection of a column and a row is called as a cell. Each cell has a name or cell address. A cell is basic block of MS Excel. It holds data and formulas in tabular format. In a worksheet there has 65536 row and 256 columns.

How many sheets, rows, and columns can a spreadsheet have?

Version	Rows	Columns
Excel 2013	1,048,576	16,384 XFD
Excel 2007	1,048,576	16,384 XFD
Excel 2003 and earlier	65,536	256

The total cells in a worksheet are $256 * 65536 = 16777216$

Cell Address: Each cell has a name or a cell address. The cell address consists of the column letter and row number. For example, the first cell is in first column and first row. First column name is A and first row number is 1. Therefore, the first cell address is A1. Similarly, the address of last cell is IV65536 i.e. column IV and row number is 65536.

Cell pointer: The cell pointer in Excel is the active cell or the selected cell and is highlighted by a bolder rectangle. The location of the cell pointer is listed below the tool bar to the left of the formula bar. By using the arrow keys on the keyboard or pointing and clicking on the desired cell, you can move the pointer.

Cell range: A group of selected cells is called a **range**. The range is identified by its range reference, for example, A3:C5.

Adjacent range: In an **adjacent range**, all cells touch each other and form a rectangle. To select an adjacent range, click the cell in a corner of the range, drag the pointer to the cell in the opposite corner of the range, and release the mouse button.

Non-adjacent range: A **nonadjacent range** includes two or more adjacent ranges and selected cells. To select a nonadjacent range, select the first adjacent range or cell, press the Ctrl key as you select the other cells or ranges you want to include, and then release the Ctrl key and the mouse button

Change Font Styles and Sizes, Adding borders and Colors to Cells

In Microsoft Excel, a user can change the properties of text in any cell, including font type, size, color, as well as make it bold, italic, or underlined. A user can also change the color of a cell's background and the border around a cell. The following picture is a graphic illustration of the font and cell format bar in Excel, as well as a description of each of the tools contained within it.

1.5. Formatting cell

Excel makes available numerous formatting options to give your worksheet a polished look. You can change the size, colour and angle of fonts, add colour to the borders and backgrounds of cells, and have the format of a cell change, based on its value. You will see that some of the formatting features in MS Excel are same as you have used in MS Word.

SAQ

1. What is MS Excel? Discuss how to create a MS Excel sheet?
2. Write a short note on how to save Excel work sheet and take a print out?

USING FORMATTING TOOLBAR

Formatting helps to make our work more presentable. It also helps the viewer/reader to understand the worksheet more easily with respect to its purpose. There are three locations where the Excel 2007 formatting tools are available.

1. In the home tab
2. In the mini toolbar that appears when you right click a range or a cell
3. In the format cells dialog box.

Home Tab and the Formatting Tools: Home tab provides the quick access to the most commonly used options with respect to the formatting requirements. You can select a cell or a range and then use the tool as per the need like Font, Alignment or Number groups. To understand the proper and best use of such tools, only way is to use them and experience their effect.

Some of the controls are further expandable like drop-down lists etc. If you see some small arrow along with a button. The button will expand to display the available choices.

In the Mini Toolbar: shortcut menu appears when you right click a cell or a range selection. A mini toolbar also appears above the shortcut menu. The Mini toolbar contains controls for common formatting:

- Font type
- Font Size
- Decrease Font
- Increase Font
- Accounting Number Format
- Comma Style
- Font Color
- Format Painter
- Bold
- Italic
- Center
- Percent Style
- Borders
- Merge And Center
- Increase Decimal
- Decrease Decimal
- Fill Color

Using the Format Cells dialog box:

Although most of the formatting related requirements gets fulfilled by the controls available on the Home tab of the Ribbon, some special types of formatting are fulfilled by using Format cells dialog box.

This dialog box allows to apply more or less any type of formatting style and number formatting. The formats selected from Format Cells Dialog box will be effective to the cells which are selected at the time.

To use Format Cells dialog box, select the cell or a range to apply formatting. Now choose any of the following methods

- Press the combination of Ctrl+1, i.e., Control key and numeric 1 key.
- Click the dialog box launcher in Home → Font, Home → Alignment, or Home → Number. A small down word pointing arrow icon will be displayed to the right. In the Excel Ribbon, these arrow marks are known as dialog box launcher. Choose Format Cells from the shortcut menu after you Right-click the selected cell or range.
- Click the More command in some of the drop-down controls in the Ribbon. For example, the Home → Number → General → More Number Formats... drop-down includes an item named More Number Formats.

5.5.1 Cell FORMATTING

There are six tabs in Format Cells dialog box: Number, Alignment, Font, Border, Patterns and Protection.

Number tab: The data type can be selected from the options on this tab. Select the range you would like to format and click on one of the category number. And apply that style to your numbers.

Alignment tab: These options allow you to change the position and alignment of the data with the cell. The Format Cells dialog box offers you more options than the alignment buttons on the Formatting toolbar. For example, you can change the orientation of the text.

Font tab: All of the font attributes are displayed in this tab including font face, size, style, and effects. Using Formatting toolbar you can bold, italicize, and underline your cell entries. For even more formatting options you can use the Format Cells dialog box.

Border and Pattern tabs:

You can use the Formatting toolbar for adding borders, cell shading, and font colour. These buttons are actually tear-off palettes. When you click on the picture portion of the button, the format of the picture displayed will be applied to the contents of the cell(s) you have selected in the worksheet. You

can change the picture displayed on the button by clicking on the button's small drop-down arrow to access the palette of samples from which to choose.

Follow these steps to apply a border and colour to a selection using the options in the Format Cells dialog box.

1. Select Format→Cells to display the Format Cells dialog box.
2. Select the Border tab.
3. In the Presets area, choose None, Outline, or Inside to specify the location for the border.
4. Choose any of the following options for the border:
 - In the Border area, click on any of the buttons to toggle its border.
 - Choose the border's line style in the Style area.
 - If necessary, select a colour for the border in the Color Palette.
5. Select the Patterns tab, and then choose any of the following options:
 - Select a colour for the background of the selection in the Color palette.
 - If necessary, select a pattern for the background of the selection in the Pattern palette.
6. Choose OK to apply the border and colour.

Dates and Times

If you enter the date “January 1, 2001” into a cell on the worksheet, Excel will automatically recognize the text as a date and change the format to “1-Jan-01”. To change the date format, select the Number tab from the Format Cells window. Select “Date” from the Category box and choose the format for the date from the Type box. If the field is a time, select “Time” from the Category box and select the type in the right box. Date and time combinations are also listed. Press OK when finished.

Formatting Columns and Rows:

Sometimes the contents of the columns do not fit in its width. So, to adjust them within the width of the column, we can use AutoFit feature.

Steps to AutoFit Columns:

- Click on Column Header/or any other cell in the column to change its width.
- Click Home tab.
- Select format from the cells group on the ribbon.
- Click on AutoFit Column Width.

Similarly you can apply AutoFit for row also.

- Click on Row Header/or any other cell in the Row to change its Height.
- Click Home tab.
- Select format from the cells group on the ribbon.

Another way of automatically adjusting columns and rows is by way of best fit. Follow the below steps:

- Place your pointer on or near the right edge of a column header of the column you wish to adjust. Notice that in this area your pointer changes to a double-headed arrow.
- Double click your pointer, and the column to the left of it will automatically adjust to fit the data entries within it. Similarly, pointing to a row header changes pointer to a double headed arrow. Double clicking results in a best fit (taller or shorter rows).

Hide Selected Column(s) or Row(s)

Hide - Hides the selected column(s) or row(s), though the data is still there. Hiding column(s) or row(s) will help you to prevent unwanted changes. To hide a column, follow these steps:

- Select the column you want to hide by clicking on the column header.
- Right Click on the Column to hide and click on the Hide option.

Unhide Selected Column(s) or Row(s)

To unhide the column follows these steps:

- Select the visible range of columns that includes the hidden column(s).
- Now Right Click on the selected Columns. Select Unhide from the pop-up menu.

SAQ

1. Write a short note on how to format a Excel work sheet in detail by giving example?
2. Write a short note on how to set a formula for any column or row?
3. Write a short note on how to create a employee table with employee number, employee name, salary and calculate annual salary of an employee?

FORMATTING WORKSHEETS USING CELL STYLES AND APPLYING STYLES:

Excel 2007 provides cell styles to quickly format a cell by choosing from predefined styles. Styles help to give a professional look to your worksheets. In Excel, all styles are cell styles. However, a defined style can be applied to an entire worksheet. Cell styles can include any of the formatting that can be applied to a cell using the options available. We can also define our own cell styles.

- Select the cells to apply a style on.
- Choose Home tab. From Styles group, Click on Cell Styles.

A few of the effects are discussed below

- Comma - Adds commas to the number and two digits beyond a decimal point.
- Comma [0] - Comma style that rounds to a whole number.
- Currency - Formats the number as currency with a dollar sign, commas, and two digits beyond the decimal point.
- Currency [0] - Currency style that rounds to a whole number.

- Normal - Reverts any changes to general number format.
- Percent - Changes the number to a percent and adds a percent sign.

Deleting Styles:

- Right click on the style (say if you want to remove Bad Style)
- Choose delete.

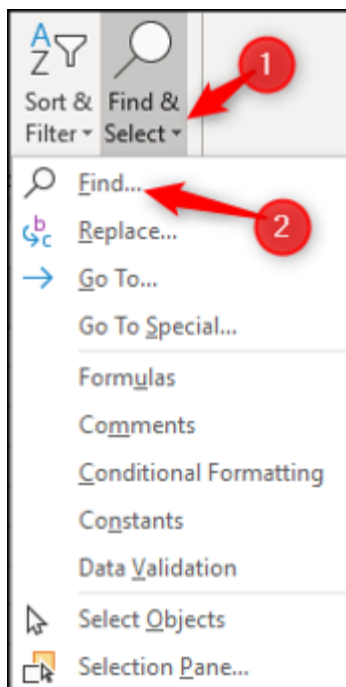
1.6. Finding and replacing data

The Find and Replace tool is a powerful yet often forgotten feature of Excel. Let's see how it can be used to find and replace text and numbers in a spreadsheet and also some of its advanced features.

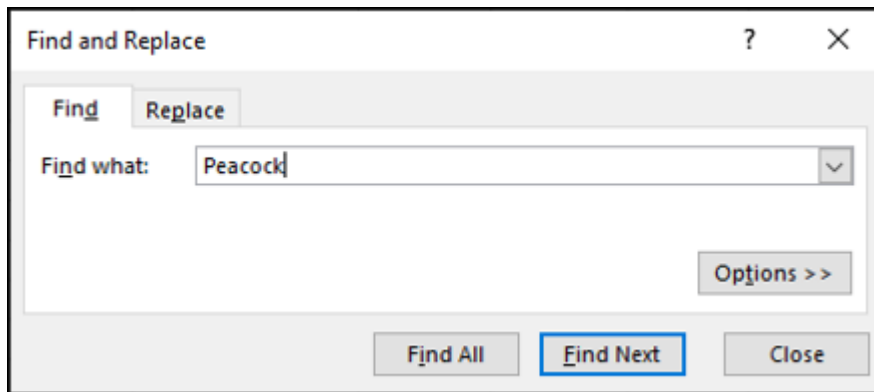
Find and Replace Text and Numbers in Excel

When working with large spreadsheets, it is a common task to need to find a specific value. Fortunately, Find and Replace make this a simple task.

Select the column or range of cells you want to analyze or click any cell to search the entire worksheet. Click Home > Find & Select > Find or press the Ctrl+F keyboard shortcut.

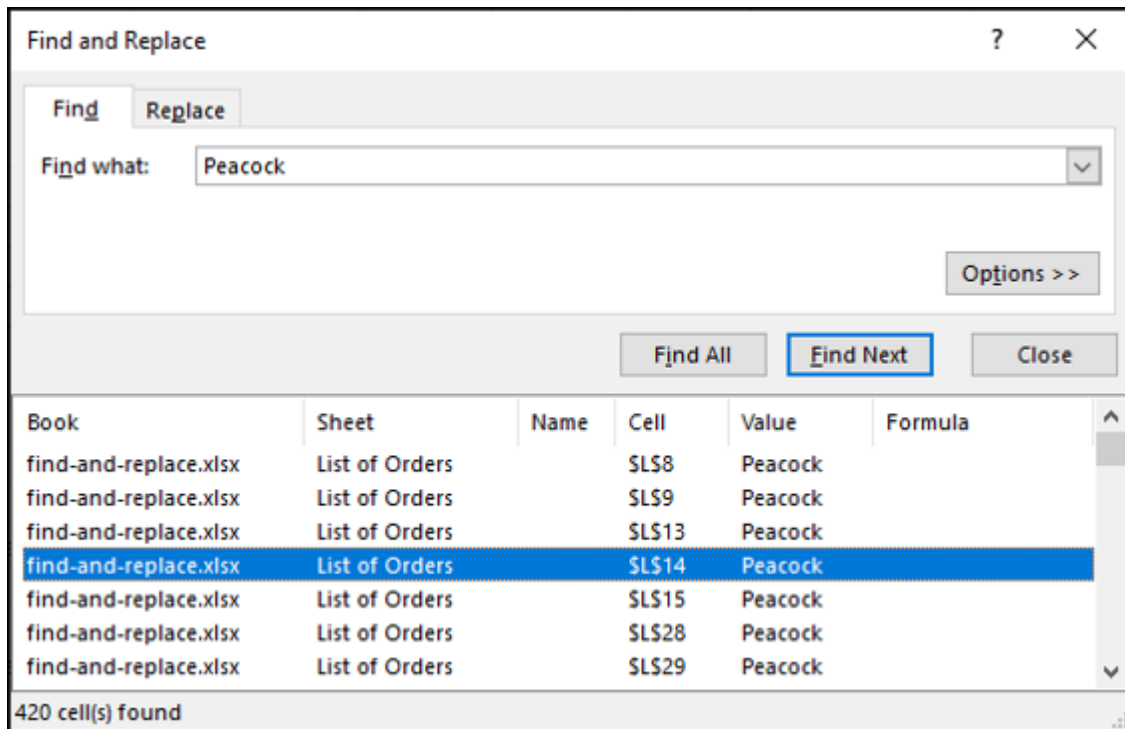


Type the text or number you want to search for in the “Find What” text box.



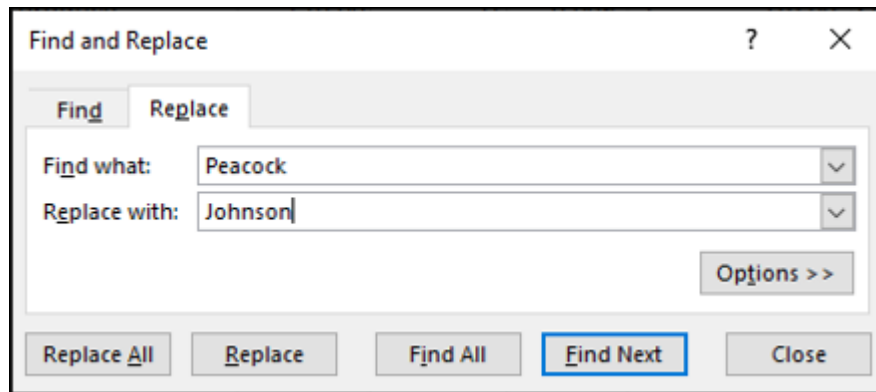
Click “Find Next” to locate the first occurrence of the value in the search area; click “Find Next” again to find the second occurrence, and so on.

Next, select “Find All” to list all occurrences of the value including information, such as the book, sheet, and cell where it is located. Click on the item in the list to be taken to that cell.



Finding specific or all occurrences of a value in a spreadsheet is useful and can save hours of scrolling through.

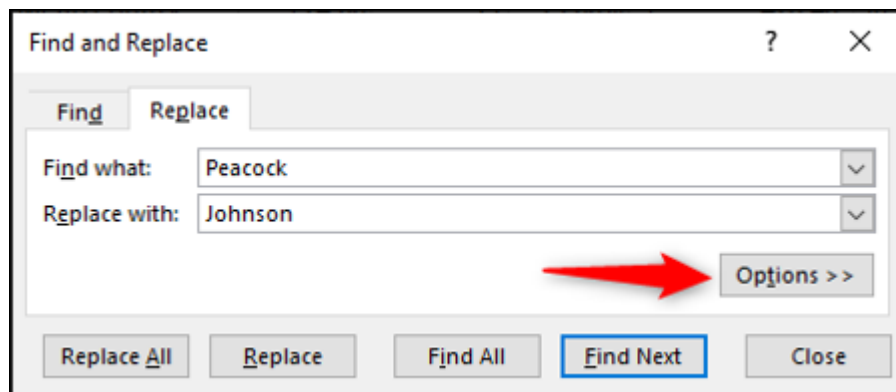
If you want to change the occurrences of a value with something else, click the “Replace” tab. Type the text or number you want to use as a replacement value within the “Replace With” text box.



Click “Replace” to change each occurrence one at a time or click “Replace All” to change all occurrences of that value in the selected range.

Explore the Advanced Options

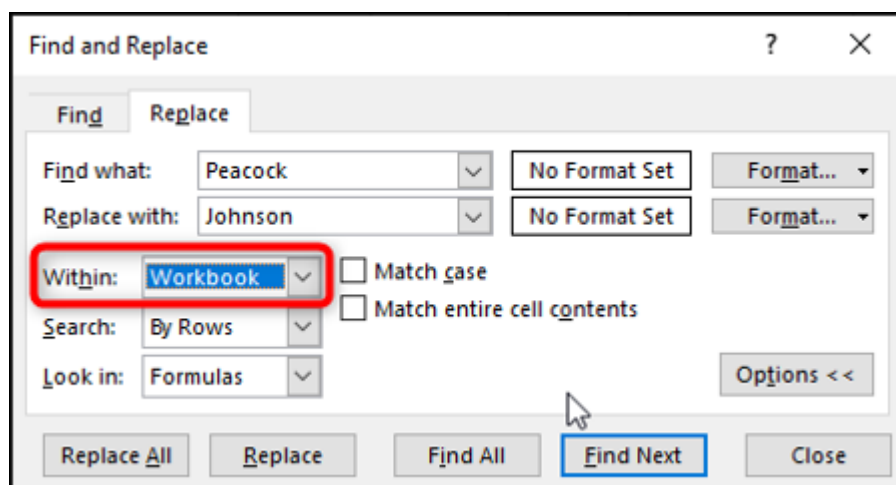
Find and Replace has advanced features that many users are not aware of. Click the “Options” button to expand the window and see these.



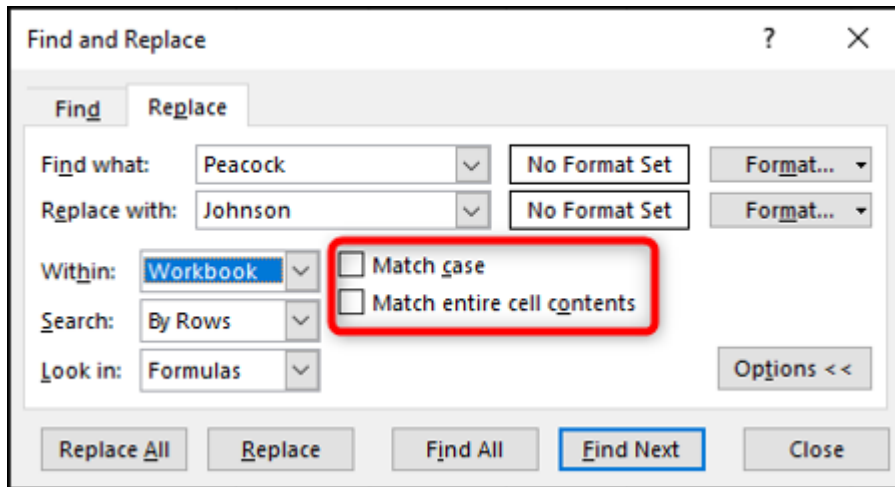
One really useful setting is the ability to change from looking within the active worksheet to the workbook.

ADVERTISEMENT

Click the “Within” list arrow to change this to Workbook.



Other useful options include the “Match Case” and “Match Entire Cell Contents” checkboxes.



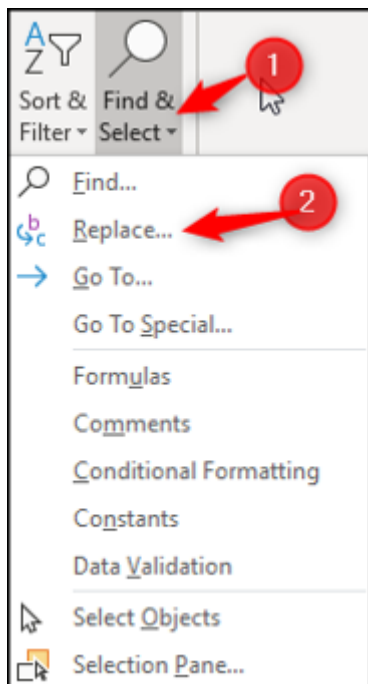
These options can help narrow down your search criteria, ensuring you find and replace the correct occurrences of the values you’re looking for.

Change the Formatting of Values

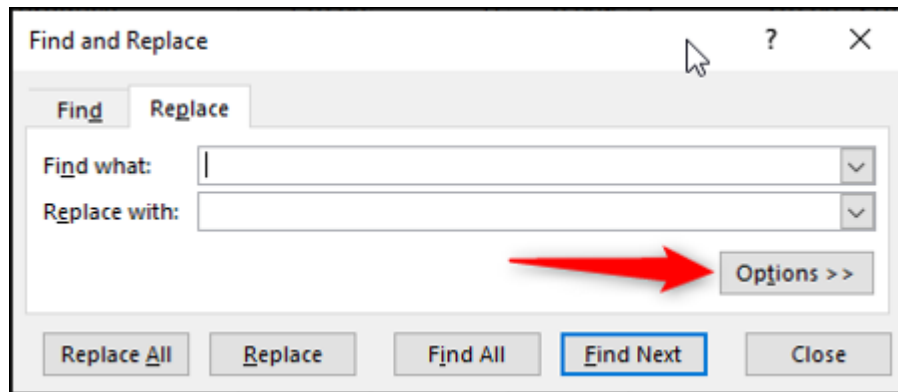
You can also find and replace the formatting of values.

Select the range of cells you want to find and replace in or click any cell to search the entire active worksheet.

Click Home > Find & Select > Replace to open the Find and Replace dialog box.

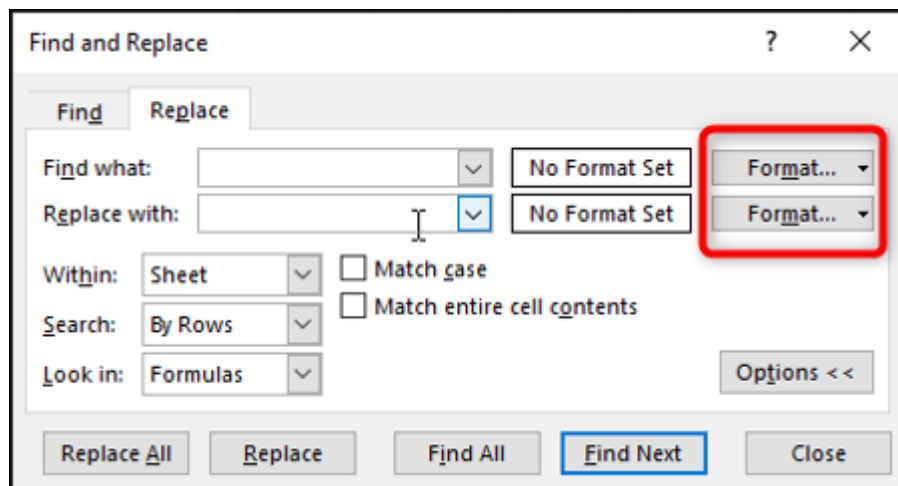


Select the “Options” button to expand the Find and Replace options.

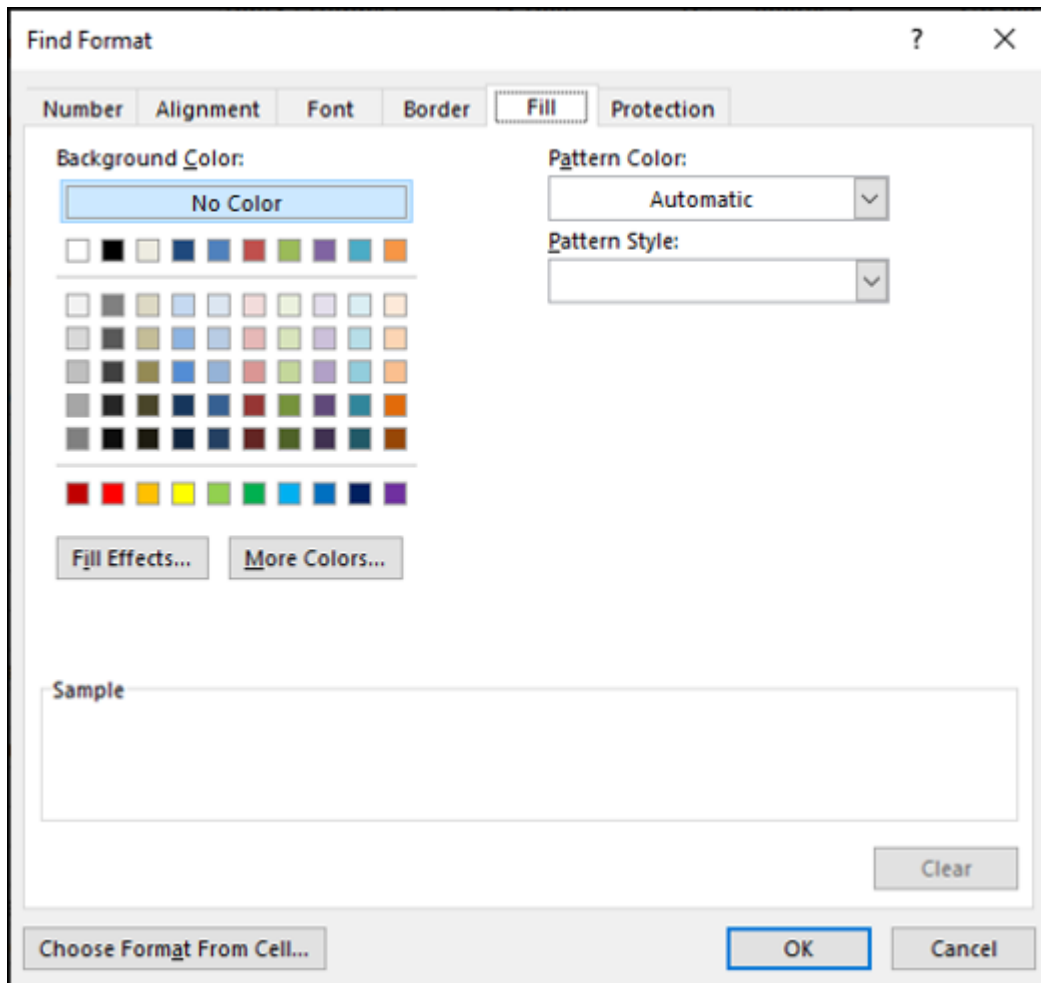


You do not need to enter text or numbers that you want to find and replace unless required.

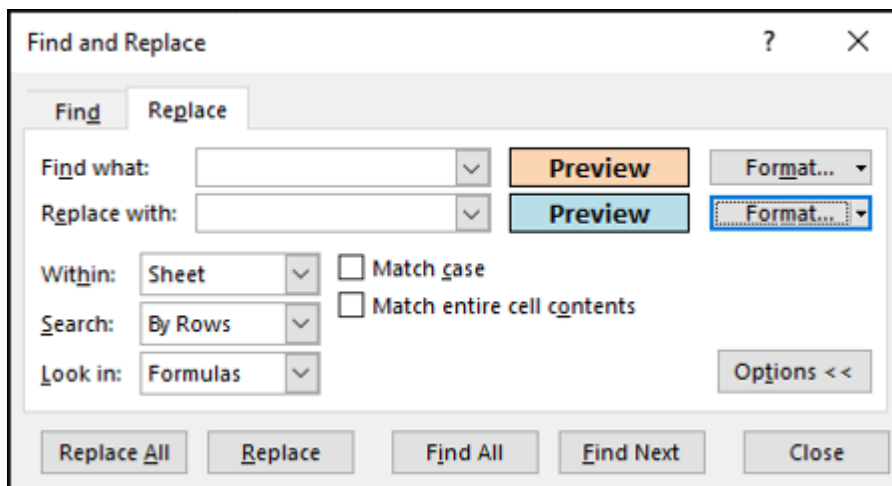
Click the “Format” button next to the “Find What” and “Replace With” text boxes to set the formatting.



Specify the formatting you want to find or replace.



A preview of the formatting is shown in the Find and Replace window.



Continue with any other options you want to set and then click “Replace All” to change all occurrences of the formatting.

Using Wildcard Characters

When using Find and Replace, sometimes you might need to perform partial matches using wildcard characters.

There are two wildcard characters you can use in Find and Replace. The question mark and the asterisk. The question mark (?) is used to find a single character. For example, Al?n would find “Alan,” “Alen,” and “Alun.”

The asterisk (*) replaces any number of characters. For example, y* would find “yes,” “yeah,” “yesss,” and “yay.”

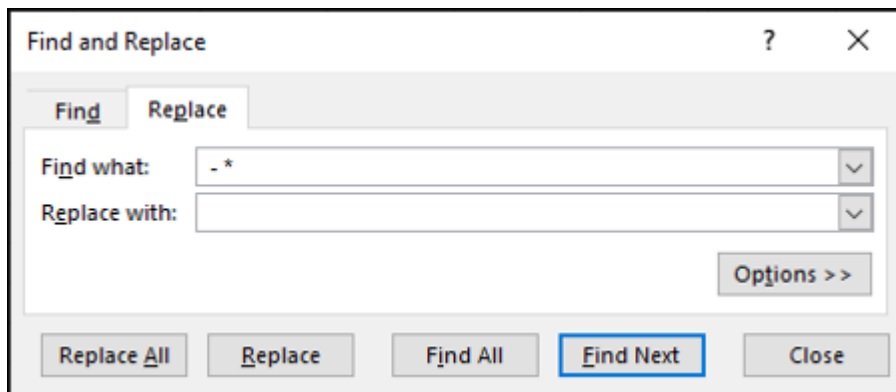
In this example, we have a list of names followed by an ID in column A of our spreadsheet. They follow this format: Alan Murray – 5367.

We want to replace all occurrences of the ID with nothing to remove them.

This will leave us with just the names.

Click Home > Find & Select > Replace to open the Find and Replace dialog box.

Type “ – *” in the “Find What” text box (there are spaces before and after the hyphen). Leave the “Replace With” text box empty.



Click “Replace All” to modify your spreadsheet.

1.7. Summary

- MS Excel is a powerful spreadsheet program through which you can create tables of any kind.
- Excel features: You can format cells/data according to condition and can get glimpse of entire data within seconds. Pivot tables, lookup formulas, power pivot, add header and footer, find and replace, pass word protection, data filtering, built in formulae and many more.
- **Formatting Columns and Rows:**
- Sometimes the contents of the columns do not fit in its width. So, to adjust them within the width of the column, we can use AutoFit feature.
- **Steps to AutoFit Columns:**
 - Click on Column Header/or any other cell in the column to change its width.

- Click Home tab.
- Select format from the cells group on the ribbon.
- Click on AutoFit Column Width.
- In Microsoft Excel, a chart is often called a graph. It is a visual representation of data from a worksheet that can bring more understanding to the data than just looking at the numbers.

1.8. SAQ

1. What is Excel? List features of Excel?
2. Explain how to create, insert and save a worksheet?
3. Create a work sheet for student, where student annual marks are calculated and prepare a pi graph for the student details?
4. What is formatting a cell? Explain?

Unit - II

2.0. Objective

2.1. Introduction

2.2. Sorting

2.3. Functions

2.4. Creating and Editing charts and Graphs

2.5. Printing Worksheets

2.6. Steps involved in problem solving

2.7. Algorithm

2.8. Flowchart

2.9. Summary

2.10. SAQ

2.0. Objective

Already we have studied the basic concepts of MS Excel such as formatting toolbar, its components, menus etc. Let us learn about sorting the data in ascending or descending order, functions and formulas of MS Excel, how to print worksheets, flowcharts and graphs. Finally we learn about algorithms which help in designing the problem solving operations in programming.

2.1. Introduction

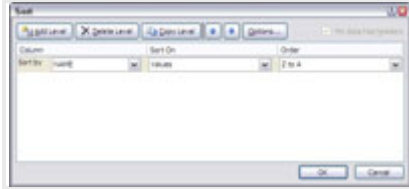
In Microsoft Excel, charts are used to make a graphical representation of any set of data. A chart is a visual representation of data, in which the data is represented by symbols such as bars in a bar chart or lines in a line chart.

2.2.Sorting

Data sorting is the process of arranging data in some logical order. MS Excel allows us to sort data either in ascending or descending order. If your Excel 2007 worksheet has become quite large, using the Sort dialog box to sort on multiple columns can make it easier to find the data you need. The Sort dialog box lets you tell Excel what column to sort on next if two cells in the main sort column contain the same value or data. The following are the steps involved in sort the data.

1. Select or click in the list of data you want to sort.

You can select only a single column of data if you want to sort that column independently of the rest of the data. However, in most cases, you likely want to sort the entire list.



2. Click the Sort button in the Sort & Filter group on the Data tab.

The Sort dialog box appears. If your data includes column headings, make sure the My Data Has Headers option is checked. Excel can usually detect the correct setting automatically.



3. From the Sort By drop-down list, select the column by which you want to sort.

This drop-down list includes the column headings for each column in the list.

4. From the Sort On drop-down list, choose Values.

Notice that you also can perform the sort on Cell Color, Font Color, or Cell Icon. Typically, you will perform a sort based on values rather than formatting.

5. From the Order drop-down list, select how you want to sort the data.

The options that appear in this list change based on the contents of the sort column. Choose A to Z or Z to A to sort text values, Smallest to Largest or Largest to Smallest to sort numeric data, or Oldest to Newest or Newest to Oldest to sort by dates.

6. Click the Add Level button.

Additional drop-down list boxes appear for the secondary sort column.



7. From the Then By list, select the secondary column you want to sort on.

This is the column Excel will sort by if two or more items are identical in the first Sort By option.

8. Select how you want to sort the second data criteria.

After you specify the options for the secondary sort column, you can add more sort columns as needed. Use the Move Up and Move Down buttons if you decide to change the order of the sort columns.

ID	NAME	CITY	STATE	ZIP
1	THE SORDON COMPANY	BRANDSWHOLE	AL	30201
2	DAVE CAMPBELL	BRANDSWHOLE	AL	30201
3	NETCENTRAL, INC	BRANDSWHOLE	AL	30201
4	JOHN KILBY LIFE ASSURANCE CO	BRANDSWHOLE	AL	30201
5	FUNCTION ANALYSIS	BRANDSWHOLE	AL	30201
6	THE GALLERY COLLECTION	ATLANTA	GA	30304
7	RANDSON PRODS	ATLANTA	GA	30304
8	NEO INVENTORY LIQUIDATION SERVICES	ATLANTA	GA	30304
9	MARCO INDUSTRIAL BANK, INC	ATLANTA	GA	30303
10	MFP TECHNOLOGY SERVICES INC	ATLANTA	GA	30304
11	JOE PUDS	ATLANTA	GA	30304
12	FUTURE TRANSACTION SOLUTIONS, INC	ATLANTA	GA	30304
13	ENVOIABLE SYSTEMS, INC	ATLANTA	GA	30303
14	CLC INC	ATLANTA	GA	30303
15	CLC INC	ATLANTA	GA	30303
16	THE RACK, INC	COLUMBUS	GA	31906
17	RETAIL DATA SYSTEMS OF CHICAGO	COLUMBUS	GA	31906
18	ICG	COLUMBUS	GA	31906
19	ICG	COLUMBUS	GA	31906
20	ICG	COLUMBUS	GA	31906
21	ICG	COLUMBUS	GA	31906
22	ICG	COLUMBUS	GA	31906
23	ICG	COLUMBUS	GA	31906
24	ICG	COLUMBUS	GA	31906
25	ICG	COLUMBUS	GA	31906
26	ICG	COLUMBUS	GA	31906
27	ICG	COLUMBUS	GA	31906
28	ICG	COLUMBUS	GA	31906
29	ICG	COLUMBUS	GA	31906
30	ICG	COLUMBUS	GA	31906
31	ICG	COLUMBUS	GA	31906
32	ICG	COLUMBUS	GA	31906
33	ICG	COLUMBUS	GA	31906
34	ICG	COLUMBUS	GA	31906
35	ICG	COLUMBUS	GA	31906
36	ICG	COLUMBUS	GA	31906
37	ICG	COLUMBUS	GA	31906
38	ICG	COLUMBUS	GA	31906
39	ICG	COLUMBUS	GA	31906
40	ICG	COLUMBUS	GA	31906
41	ICG	COLUMBUS	GA	31906
42	ICG	COLUMBUS	GA	31906
43	ICG	COLUMBUS	GA	31906
44	ICG	COLUMBUS	GA	31906
45	ICG	COLUMBUS	GA	31906
46	ICG	COLUMBUS	GA	31906
47	ICG	COLUMBUS	GA	31906
48	ICG	COLUMBUS	GA	31906
49	ICG	COLUMBUS	GA	31906
50	ICG	COLUMBUS	GA	31906

9. Click OK.

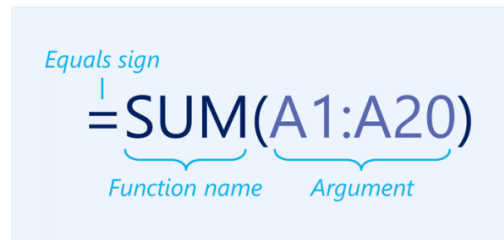
The dialog box closes and Excel performs the sort process.

2.3. Functions

A **function** is a **predefined formula** that performs calculations using specific values in a particular order. Excel includes many common functions that can be used to quickly find the **sum**, **average**, **count**, **maximum value**, and **minimum value** for a range of cells. In order to use functions correctly, you'll need to understand the different **parts of a function** and how to create **arguments** to calculate values and cell references.

2.3.1 Function: In order to work correctly, a function must be written a specific way, which is called the **syntax**. The basic syntax for a function is the **equals sign (=)**, the **function name** (SUM, for example), and one or more **arguments**. Arguments contain the information you want to calculate.

The function in the example below would add the values of the cell range A1:A20.



Working with arguments: Arguments can refer to both **individual cells** and **cell ranges** and must be enclosed within **parentheses**. You can include one argument or multiple arguments, depending on the syntax required for the function.

For example, the function `=AVERAGE(B1:B9)` would calculate the **average** of the values in the cell range B1:B9. This function contains only one argument.

	A	B	C	D	E
1		1			
2		4			
3		5			
4		6			
5		8			
6		2			
7		3			
8		5			
9		6			
10		=AVERAGE(B1:B9)			
11					

Multiple arguments must be separated by a **comma**. For example, the function `=SUM(A1:A3, C1:C2, E1)` will **add** the values of all of the cells in the three arguments.

	A	B	C	D	E	F
1	4		6		20	
2	8		10			
3	12					
4						
5						
6						

Creating a function: There are a variety of functions available in Excel. Here are some of the most common functions.

- **SUM:** This function **adds** all of the values of the cells in the argument.
- **AVERAGE:** This function determines the **average** of the values included in the argument. It calculates the sum of the cells and then divides that value by the number of cells in the argument.
- **COUNT:** This function **counts** the number of cells with numerical data in the argument. This function is useful for quickly counting items in a cell range.
- **MAX:** This function determines the **highest cell value** included in the argument.
- **MIN:** This function determines the **lowest cell value** included in the argument.

SAQ

1. Write a short note on how to insert sum and average function in EXCEL?

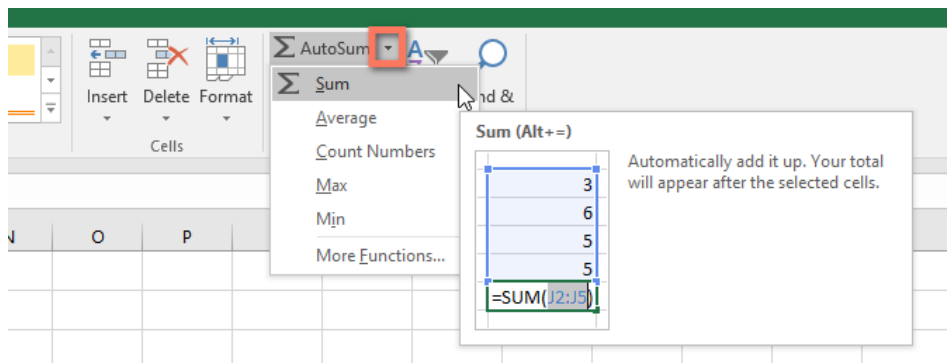
To create a function using the AutoSum command:

The **AutoSum** command allows you to automatically insert the most common functions into your formula, including SUM, AVERAGE, COUNT, MIN, and MAX. In the example below, we'll use the **SUM** function to calculate the **total cost** for a list of recently ordered items.

1. Select the **cell** that will contain the function. In our example, we'll select cell **D13**.

	A	B	C	D
2	ITEM	QUANTITY	UNIT PRICE	LINE TOTAL
3	Tomatoes (case of 12)	3	\$17.44	\$52.32
4	Black Beans (case of 10)	5	\$20.14	\$100.70
5	All Purpose Flour (50 lb.)	5	\$14.05	\$70.25
6	Corn Meal/Maza (25 lb.)	5	\$18.69	\$93.45
7	Brown Rice (25 lb.)	5	\$10.99	\$54.95
8	Lime Juice (1 gallon)	5	\$11.99	\$59.95
9	Tomato Juice (case of 10)	3	\$19.49	\$58.47
10	Hot Sauce (1 gallon)	8	\$7.35	\$58.80
11	Salsa, Medium (1 gallon)	12	\$8.47	\$101.64
12	Olive Oil (2.5 gallon)	4	\$28.69	\$114.76
13	TOTAL			+
14				

- In the **Editing** group on the **Home** tab, click the **arrow** next to the **AutoSum** command. Next, choose the **desired function** from the drop-down menu. In our example, we'll select **Sum**.



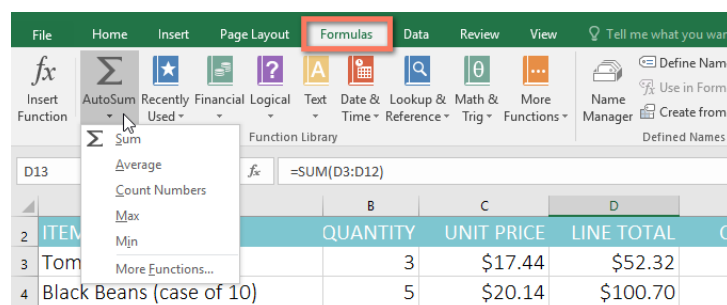
- Excel will place the **function** in the cell and automatically select a **cell range** for the argument. In our example, cells **D3:D12** were selected automatically; their values will be **added** to calculate the total cost. If Excel selects the wrong cell range, you can manually enter the desired cells into the argument.

	A	B	C	D
2	ITEM	QUANTITY	UNIT PRICE	LINE TOTAL
3	Tomatoes (case of 12)	3	\$17.44	\$52.32
4	Black Beans (case of 10)	5	\$20.14	\$100.70
5	All Purpose Flour (50 lb.)	5	\$14.05	\$70.25
6	Corn Meal/Maza (25 lb.)	5	\$18.69	\$93.45
7	Brown Rice (25 lb.)	5	\$10.99	\$54.95
8	Lime Juice (1 gallon)	5	\$11.99	\$59.95
9	Tomato Juice (case of 10)	3	\$19.49	\$58.47
10	Hot Sauce (1 gallon)	8	\$7.35	\$58.80
11	Salsa, Medium (1 gallon)	12	\$8.47	\$101.64
12	Olive Oil (2.5 gallon)	4	\$28.69	\$114.76
13				=SUM(D3:D12)

4. Press **Enter** on your keyboard. The function will be **calculated**, and the **result** will appear in the cell. In our example, the sum of D3:D12 is **\$765.29**.

	A	B	C	D
2	ITEM	QUANTITY	UNIT PRICE	LINE TOTAL
3	Tomatoes (case of 12)	3	\$17.44	\$52.32
4	Black Beans (case of 10)	5	\$20.14	\$100.70
5	All Purpose Flour (50 lb.)	5	\$14.05	\$70.25
6	Corn Meal/Maza (25 lb.)	5	\$18.69	\$93.45
7	Brown Rice (25 lb.)	5	\$10.99	\$54.95
8	Lime Juice (1 gallon)	5	\$11.99	\$59.95
9	Tomato Juice (case of 10)	3	\$19.49	\$58.47
10	Hot Sauce (1 gallon)	8	\$7.35	\$58.80
11	Salsa, Medium (1 gallon)	12	\$8.47	\$101.64
12	Olive Oil (2.5 gallon)	4	\$28.69	\$114.76
13		TOTAL		\$765.29

The **AutoSum** command can also be accessed from the **Formulas** tab on the **Ribbon**.



You can also use the **Alt+=** keyboard shortcut instead of the AutoSum command. To use this shortcut, hold down the **Alt** key and then press the **equals sign**.

To enter a function manually:

If you already know the function name, you can easily type it yourself. In the example below (a tally of cookie sales), we'll use the **AVERAGE** function to calculate the **average number of units sold** by each troop.

1. Select the **cell** that will contain the function. In our example, we'll select cell **C10**.
- 2.

Frontier Kids Cookie Sales		
Troop Name	Troop ID	Units Sold
North Bend	#3506	1004
Silver Lake	#2745	938
Mountain Top	#1038	745
Rocky Trail	#3759	729
Forest Path	#4157	862
Green Valley	#1932	890
River View	#4233	775
Average Units		

3. Type the **equals sign (=)**, and enter the desired **function name**. You can also select the desired function from the list of **suggested functions** that appears below the cell as you type. In our example, we'll type **=AVERAGE**.

Frontier Kids Cookie Sales		
Troop Name	Troop ID	Units Sold
North Bend	#3506	1004
Silver Lake	#2745	938
Mountain Top	#1038	745
Rocky Trail	#3759	729
Forest Path	#4157	862
Green Valley	#1932	890
River View	#4233	775
Average Units		=AVERAGE

4. Enter the **cell range** for the argument inside **parentheses**. In our example, we'll type **(C3:C9)**. This formula will add the values of cells C3:C9, then divide that value by the total number of values in the range.

Frontier Kids Cookie Sales		
Troop Name	Troop ID	Units Sold
North Bend	#3506	1004
Silver Lake	#2745	938
Mountain Top	#1038	745
Rocky Trail	#3759	729
Forest Path	#4157	862
Green Valley	#1932	890
River View	#4233	775
Average Units		=AVERAGE(C3:C9)

5. Press **Enter** on your keyboard. The function will be calculated, and the **result** will appear in the cell. In our example, the average number of units sold by each troop is **849**.

Frontier Kids Cookie Sales		
Troop Name	Troop ID	Units Sold
North Bend	#3506	1004
Silver Lake	#2745	938
Mountain Top	#1038	745
Rocky Trail	#3759	729
Forest Path	#4157	862
Green Valley	#1932	890
River View	#4233	775
Average Units		849

The Function Library

While there are hundreds of functions in Excel, the ones you'll use the most will depend on the **type of data** your workbooks contain. There's no need to learn every single function, but exploring some of the different **types** of functions will help you as you create new projects. You can even use the **Function Library** on the **Formulas** tab to browse functions by category, such as **Financial**, **Logical**, **Text**, and **Date & Time**. To access the **Function Library**, select the **Formulas** tab on the **Ribbon**.

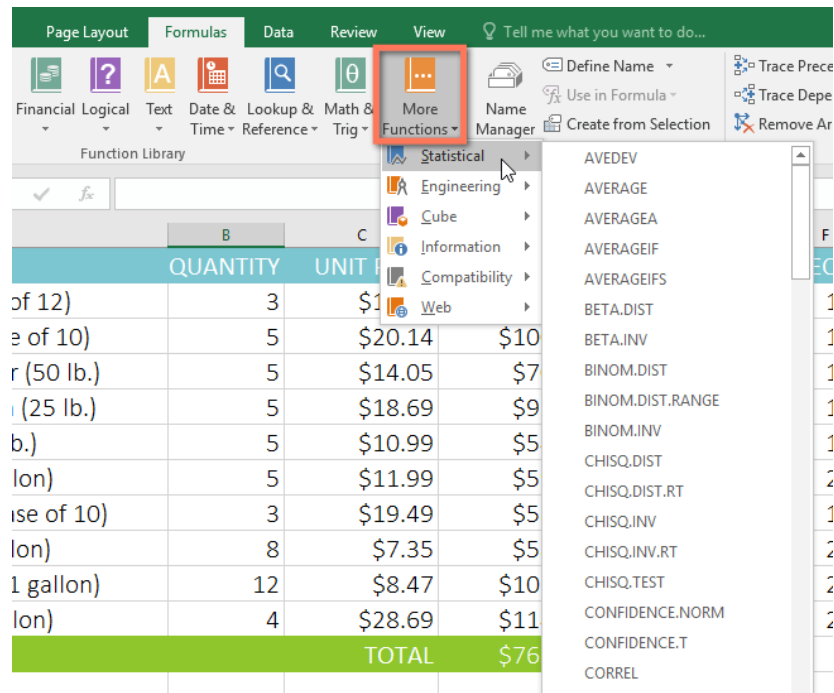
To insert a function from the Function Library:

In the example below, we'll use the COUNTA function to count the total number of items in the **Items** column. Unlike COUNT, **COUNTA** can be used to tally cells that contain data of any kind, not just numerical data.

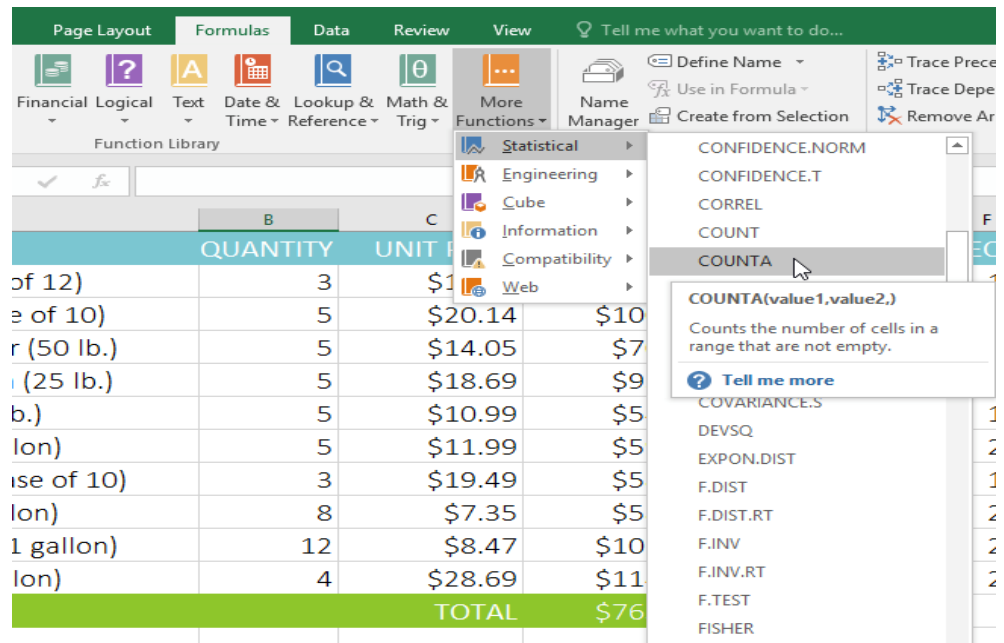
1. Select the **cell** that will contain the function. In our example, we'll select cell **B17**.

	A	B	C	D
2	ITEM	QUANTITY	UNIT PRICE	LINE TOTAL
3	Tomatoes (case of 12)	3	\$17.44	\$52.32
4	Black Beans (case of 10)	5	\$20.14	\$100.70
5	All Purpose Flour (50 lb.)	5	\$14.05	\$70.25
6	Corn Meal/Maza (25 lb.)	5	\$18.69	\$93.45
7	Brown Rice (25 lb.)	5	\$10.99	\$54.95
8	Lime Juice (1 gallon)	5	\$11.99	\$59.95
9	Tomato Juice (case of 10)	3	\$19.49	\$58.47
10	Hot Sauce (1 gallon)	8	\$7.35	\$58.80
11	Salsa, Medium (1 gallon)	12	\$8.47	\$101.64
12	Olive Oil (2.5 gallon)	4	\$28.69	\$114.76
13			TOTAL	\$765.29
14				
15				
16	PURCHASE ORDER SUMMARY			
17	Total items ordered			
18	Most expensive item			
19	Average days in transit			
20				

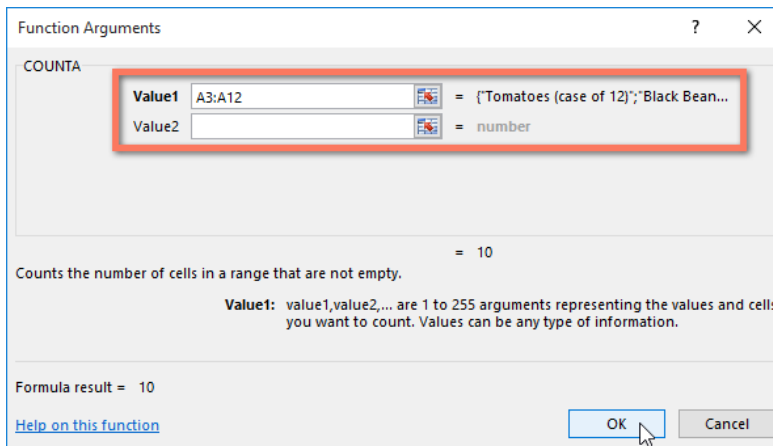
2. Click the **Formulas** tab on the **Ribbon** to access the **Function Library**.
3. From the **Function Library** group, select the desired **function category**. In our example, we'll choose **More Functions**, then however the mouse over **Statistical**.



4. Select the **desired function** from the drop-down menu. In our example, we'll select the **COUNTA** function, which will count the number of cells in the **Items** column that are not empty.



5. The **Function Arguments** dialog box will appear. Select the **Value1** field, then enter or select the desired cells. In our example, we'll enter the cell range **A3:A12**. You may continue to add arguments in the **Value2** field, but in this case we only want to count the number of cells in the cell range **A3:A12**.
6. When you're satisfied, click **OK**.



- The function will be **calculated**, and the **result** will appear in the cell. In our example, the result shows that a total of **10 items** were ordered.

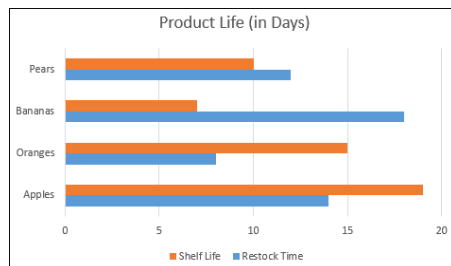
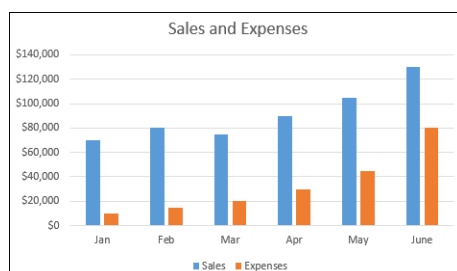
	A	B	C	D
2	ITEM	QUANTITY	UNIT PRICE	LINE TOTAL
3	Tomatoes (case of 12)	3	\$17.44	\$52.32
4	Black Beans (case of 10)	5	\$20.14	\$100.70
5	All Purpose Flour (50 lb.)	5	\$14.05	\$70.25
6	Corn Meal/Maza (25 lb.)	5	\$18.69	\$93.45
7	Brown Rice (25 lb.)	5	\$10.99	\$54.95
8	Lime Juice (1 gallon)	5	\$11.99	\$59.95
9	Tomato Juice (case of 10)	3	\$19.49	\$58.47
10	Hot Sauce (1 gallon)	8	\$7.35	\$58.80
11	Salsa, Medium (1 gallon)	12	\$8.47	\$101.64
12	Olive Oil (2.5 gallon)	4	\$28.69	\$114.76
13			TOTAL	\$765.29
14				
15				
16	PURCHASE ORDER SUMMARY			
17	Total items ordered	10		
18	Most expensive item			
19	Average days in transit			
20				

SAQ**1. Discuss how to insert library function in EXCEL?****2.4. Creating, editing Charts and graphs**

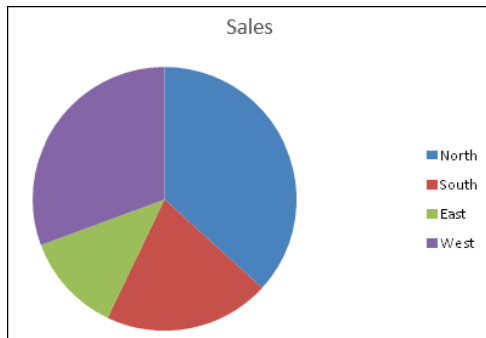
In Microsoft Excel, a chart is often called a graph. It is a visual representation of data from a worksheet that can bring more understanding to the data than just looking at the numbers.

A chart is a powerful tool that allows you to visually display data in a variety of different chart formats such as Bar, Column, Pie, Line, Area, Doughnut, Scatter, Surface, or Radar charts. With Excel, it is easy to create a chart.

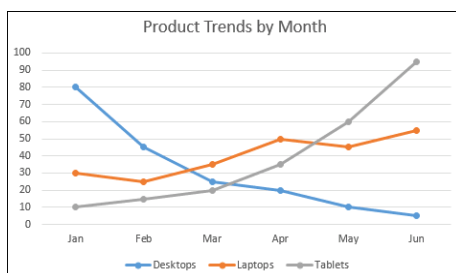
The following are some of the types of charts that you can create in Excel.

Bar Chart**Column Chart**

Pie Chart

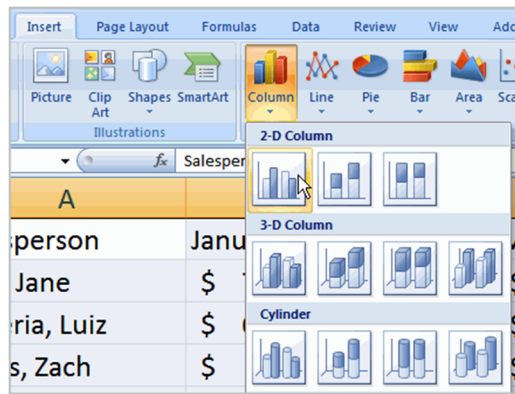


Line Chart



To create a chart follow the steps given below:

- Select the **worksheet** you want to work with. In this example, we use the **Summary** worksheet.
- Select the **cells** you want to chart, including the **column titles** and **row labels**.
- Click the **Insert** tab.
- Hover over each **Chart option** in the Charts group to learn more about it.
- Select one of the Chart options. In this example, we'll use the Columns command.
- Select a **type of chart** from the list that appears. For this example, we'll use a 2-D Clustered Column. The chart appears in the worksheet.



Identifying the parts of a chart

Charts are a **visual representation** of data in a worksheet. Charts make it easy to see comparisons, patterns, and trends in the data.

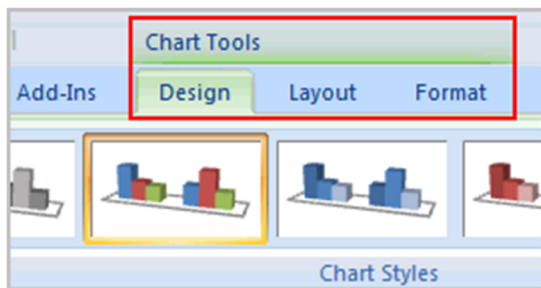


Source data

The range of cells that make up a chart. The chart is updated automatically whenever the information in these cells changes.

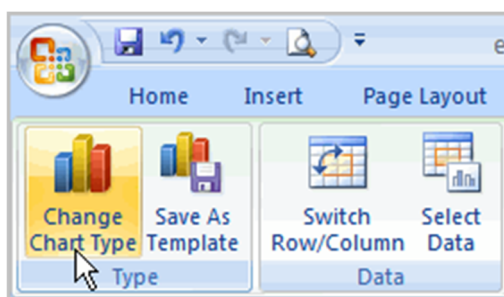
- **Title:** The title of the chart.

- **Legend:** The chart key, which identifies what each colour on the chart represents.
- **Axis:** The vertical and horizontal parts of a chart. The vertical axis is often referred to as the Y axis, and the horizontal axis is referred to as the X axis.
- **Data series:** The actual charted values, which are usually rows or columns of the source data.
- **Value axis:** The axis that represents the values or units of the source data.
- **Category axis:** The axis identifying each data series.
- **Chart tools:** Once you insert a chart, a new set of **Chart Tools**, arranged into three tabs, will appear above the Ribbon. These are only visible when the chart is selected.



To change the chart type:

- Select the **Design** tab.
- Click the **Change Chart Type** command. A dialog box appears.



- Select another **chart type**.
- Click OK.

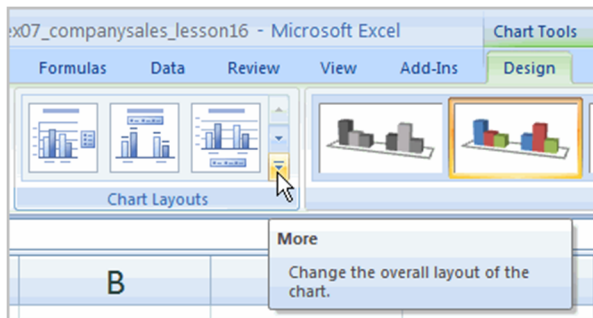
The chart in the example compares each salesperson's monthly sales to his or her other months' sales; however, you can change what is being compared. Just click the **Switch Row/Column Data** command, which will rotate the data displayed on the **x** and **y** axes. To return to the **original view**, click the Switch Row/Column command again.

SAQ

1. List different types of charts that can be used in EXCEL sheet?

To change chart layout:

- Select the **Design** tab.
- Locate the **Chart Layouts** group.
- Click the **More** arrow to view all of your layout options.

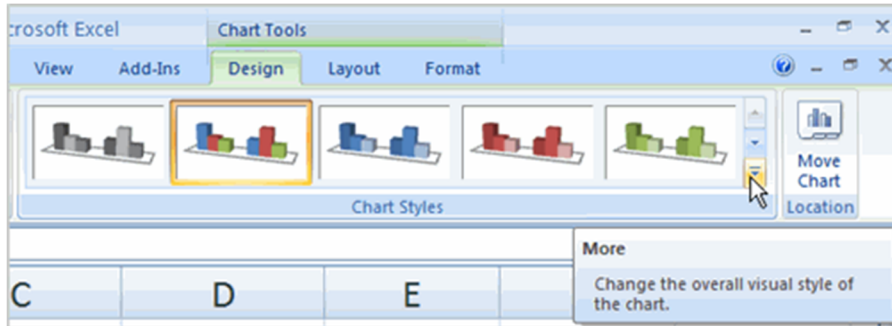


- Left-click a layout to select it.

If your new layout includes chart titles, axes, or legend labels, just insert your cursor into the text and begin typing to add your own text.

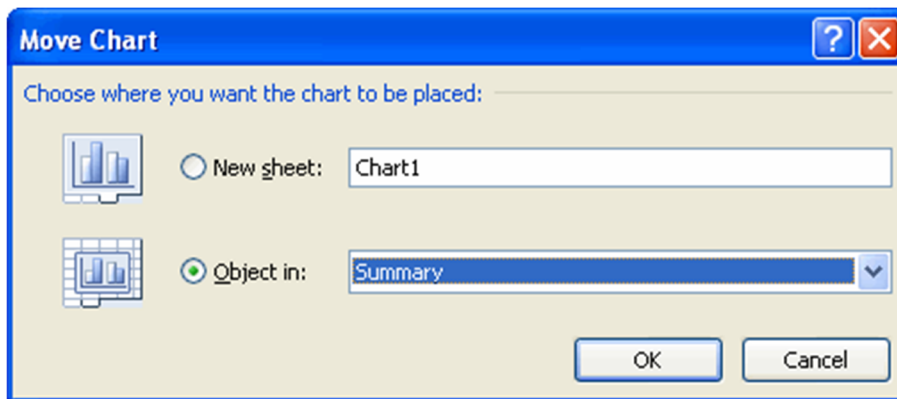
To change chart style:

- Select the **Design** tab.
- Locate the **Chart Style** group.
- Click the **More** arrow to view all of your style options.
- Left-click a style to select it.



To move the chart to a different worksheet:

- Select the **Design** tab.
- Click the **Move Chart** command. A dialog box appears. The current location of the chart is selected.
- Select the desired location for the chart (i.e., choose an existing worksheet, or select New Sheet and name it).



2.5. Printing worksheets

Before printing a spreadsheet or pivot table, it is used to previewing and adjusting it for better readability. This can be done in different methods. The following are the two methods to page set up and print worksheet in MS Excel 2007.

Page Setup

To modify the page setup

- (1) Choose **Page Setup** from the **File** menu. Page Setup allows you to set page options like Margins, Paper Settings, Page Layout and Document Grid. Options for the same are provided through four tabbed sub-menus.
 1. **Page** :You can set your page settings here.
 2. **Margins**: You can set the margins here.

3. **Header/Footer** :You can define the header and footer of the page here.
4. **Sheet** :You can define your sheet formatting here.

(A) Page Settings

- (a) Click here to define the paper orientation;
 - (b) Click here to define the printer settings;
 - (c) Click here to see the print preview;
 - (d) Click here to define the print options;
 - (e) Click here to define the page scaling;
 - (f) Click here to define the paper size here;
1. Click here to define the print quality; and
 - Click here to define the first page number.

(B) Margin Settings

- Click here to define the **Top** margin setting;
- Click here to define the **Header** margin setting;
 - (c) Click here to define the **Left** margin setting;
 - (d) Click here to define the **Right** margin setting;
 - (e) Click here to define the **Bottom** margin setting;
 - (f) Click here to define the **Footer** margin setting; and
 - (g) Click here to define the **Center alignment** of the page.

(C) Header/Footer

- (a) Click here to customize your header; and
- (b) Click here to customize your footer.

(D) Sheet

- (a) Click here to define the print area;
- (b) Click here to define the column and rows title;
- (c) Click here to print the gridlines, draft quality, row and column heading, cell errors or to print the worksheet in black and white; and
- (d) Click here to define the page order in.

Print

To print the document or the template.

1. Choose **Print** from the **File** menu to print your worksheet or a selection of your worksheet.
2. Select the Printer name here.

1. Click here to change the printing options for the selected printer.
2. Click here to find the network printer based on the printer name, model etc.
3. Click here to print your document in a file instead of a printer.
3. Click here to select the page or the page range you want to print.
(D) Click here to define the number of copies you want to print.
4. Choose the worksheet or the entire workbook that you want to print.
(E) Click here to see preview of the workbook or the worksheet you have selected to print.
5. Click on **OK** Once you have defined your print settings.

Print Preview

Displays the full page as it will be displayed on the paper.

- (1) Choose **Print Preview** from the **File** menu to see, how your worksheet or a selection of your worksheet will look like on paper.
(A) This will, howyourworksheet or a selection of your worksheet, will look like on paper.

SAQ

1. **Write short notes on how to insert header and footer in EXCEL?**
2. **Write a short note on how to implement page setup in EXCEL?**

2.6. Steps involved in problem solving

A computer is a very powerful and versatile machine capable of performing a multitude of different tasks, yet it has no intelligence or thinking power. The intelligence Quotient (I.Q) of a computer is zero. A computer performs many tasks exactly in the same manner as it is told to do. This places responsibility on the user to instruct the computer in a correct and precise manner, so that the machine is able to perform the required job in a proper way. A wrong or ambiguous instruction may sometimes prove disastrous. In order to instruct a computer correctly, the user must have clear understanding of the problem to be solved. A part

from this he should be able to develop a method, in the form of series of sequential steps, to solve it. Once the problem is well-defined and a method of solving it is developed, then instructing the computer to solve the problem becomes relatively easier task. Thus, before attempt to write a computer program to solve a given problem. It is necessary to formulate or define the problem in a precise manner. Once the problem is defined, the steps required to solve it, must be stated clearly in the required order.

A computer cannot solve a problem on its own. One has to provide step by step solutions of the problem to the computer. In fact, the task of problem solving is not that of the computer. It is the programmer who has to write down the solution to the problem in terms of simple operations which the computer can understand and execute.

The following are the steps involved in problem solving

1. Understanding the problem
2. Analyzing the problem
3. Developing the solution
4. Coding and implementation.

1. Understanding the problem: Here we try to understand the problem to be solved in totally. Before with the next stage or step, we should be absolutely sure about the objectives of the given problem.

2. Analyzing the problem: After understanding thoroughly the problem to be solved, we look different ways of solving the problem and evaluate each of these methods. The idea here is to search an appropriate solution to the problem under consideration. The end result of this stage is a broad overview of the sequence of operations that are to be carries out to solve the given problem.

3. Developing the solution: Here the overview of the sequence of operations that was the result of analysis stage is expanded to form a detailed step by step solution to the problem under consideration.

4. Coding and implementation: The last stage of the problem solving is the conversion of the detailed sequence of operations into a language that the computer can understand. Here each step is converted to its equivalent instruction or instructions in the computer language that has been chosen for the implementation.

2.7. Algorithms

A set of sequential steps usually written in Ordinary Language to solve a given problem is called Algorithm.

It may be possible to solve a problem in more than one way, resulting in more than one algorithm. The choice of various algorithms depends on the factors like reliability, accuracy and easy to modify. The most important factor in the choice of algorithm is the time requirement to execute it, after writing code in High-level language with the help of a computer. The algorithm which will need the least time when executed is considered the best.

Steps involved in algorithm development An algorithm can be defined as “a complete, unambiguous, finite number of logical steps for solving a specific problem“.

Step1: Identification of input: For an algorithm, there are quantities to be supplied called input and these are fed externally. The input is to be identified first for any specified problem.

Step2: Identification of output: From an algorithm, at least one quantity is produced, called for any specified problem.

Step3 : Identification the processing operations : All the calculations to be performed in order to lead to output from the input are to be identified in an orderly manner.

Step4 : Processing Definiteness : The instructions composing the algorithm must be clear and there should not be any ambiguity in them.

Step5 : Processing Finiteness : If we go through the algorithm, then for all cases, the algorithm should terminate after a finite number of steps.

Step6 : Possessing Effectiveness : The instructions in the algorithm must be sufficiently basic and in practice they can be carried out easily.

An algorithm must possess the following properties

- 1. Finiteness:** An algorithm must terminate in a finite number of steps
- 2. Definiteness:** Each step of the algorithm must be precisely and unambiguously stated
- 3. Effectiveness:** Each step must be effective, in the sense that it should be primitive easily convert able into program statement) can be performed exactly in a finite amount of time.
- 4. Generality:** The algorithm must be complete in itself so that it can be used to solve problems of a specific type for any input data.
- 5. Input/output:** Each algorithm must take zero, one or more quantities as input data produce one or more output values. An algorithm can be written in English like sentences or in any standard representation sometimes, algorithm written in English like languages are called Pseudo Code.

Example 1. Suppose we want to find the average of three numbers?

The algorithm is as follows

Step 1 Read the numbers a, b, c

Step 2 Compute the sum of a, b and c

Step 3 Divide the sum by 3

Step 4 Store the result in variable d

Step 5 Print the value of d

Step 6 End of the program

2.8. Flowchart

A flow chart is a step by step diagrammatic representation of the logic paths to solve a given problem. Or a flowchart is visual or graphical representation of an algorithm. The flowcharts are pictorial representation of the methods to be used to solve a given problem and help a great deal to analyze the problem and plan its solution in a systematic and orderly manner. A flowchart when translated in to a proper computer language, results in a complete program.

Advantages of Flowcharts

1. The flowchart shows the logic of a problem displayed in pictorial fashion which facilitates easier checking of an algorithm.
2. The Flowchart is good means of communication to other users. It is also a compact means of recording an algorithm solution to a problem.
3. The flowchart allows the problem solver to break the problem into parts. These parts can be connected to make master chart.
4. The flowchart is a permanent record of the solution which can be consulted at a later time.

Differences between Algorithm and Flowchart

Algorithms	Flowchart
1. A method of representing the step-by-step logical procedure for solving a problem	1. Flowchart is diagrammatic representation of an algorithm. It is constructed using different types of boxes and symbols.
2. It contains step-by-step English descriptions, each step representing a particular operation leading to solution of problem	2. The flowchart employs a series of blocks and arrows, each of which represents a particular step in an algorithm
3. These are particularly useful for small problems 4. For complex programs,	3. These are useful for detailed

algorithms prove to be inadequate

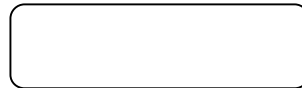
representations of complicated programs

4. For complex programs, Flowcharts prove to be adequate

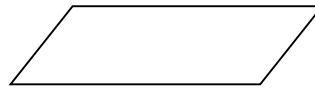
2.8.1. Symbols used in flowcharts

The symbols that we make use while drawing flowcharts as given below are as per conventions followed by International Standard Organization (ISO).

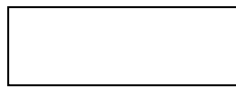
a. Oval: Rectangle with rounded sides is used to indicate either START/ STOP of the program. ..



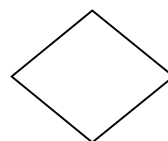
b. Input and output indicators: Parallelograms are used to represent input and output operations. Statements like INPUT, READ and PRINT are represented in these Parallelograms.



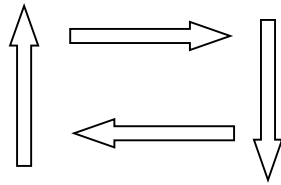
c. Process Indicators: Rectangle is used to indicate any set of processing operation such as for storing arithmetic operations.



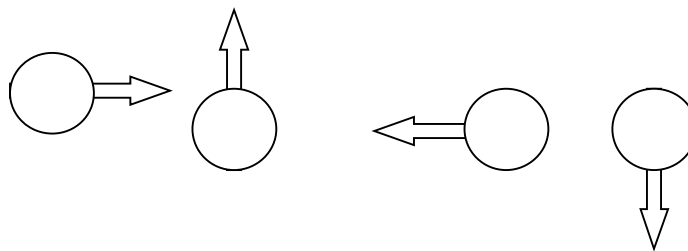
d. Decision Makers: The diamond is used for indicating the step of decision making and therefore known as decision box. Decision boxes are used to test the conditions or ask questions and depending upon the answers, the appropriate actions are taken by the computer. The decision box symbol is



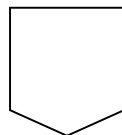
e. Flow Lines: Flow lines indicate the direction being followed in the flowchart. In a Flowchart, every line must have an arrow on it to indicate the direction. The arrows may be in any direction



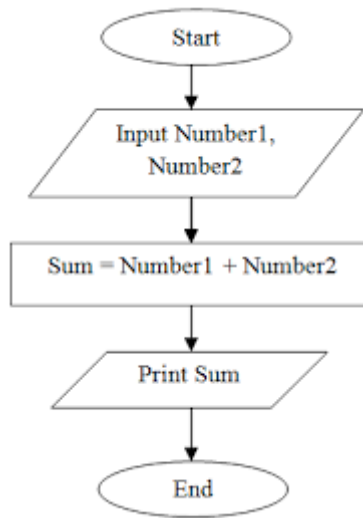
f. On- Page connectors: Circles are used to join the different parts of a flowchart and these circles are called on-page connectors. The uses of these connectors give a neat shape to the flowcharts. In a complicated problems, a flowchart may run in to several pages. The parts of the flowchart on different pages are to be joined with each other. The parts to be joined are indicated by the circle.



g. Off-page connectors: This connector represents a break in the path of flowchart which is too large to fit on a single page. It is similar to on-page connector. The connector symbol marks where the algorithm ends on the first page and where it continues on the second.



Simple problem using flow chart



The above flowchart explains about sum of two numbers.

SAQ

Explain flow chart in detail?

2.9. Summary

- **Steps to AutoFit Columns:**
 - Click on Column Header/or any other cell in the column to change its width.
 - Click Home tab.
 - Select format from the cells group on the ribbon.
 - Click on AutoFit Column Width.
- In Microsoft Excel, a chart is often called a graph. It is a visual representation of data from a worksheet that can bring more understanding to the data than just looking at the numbers.
- A set of sequential steps usually written in Ordinary Language to solve a given problem is called Algorithm
- The flowcharts are pictorial representation of the methods to be used to solve a given problem and help a great deal to analyze the problem and plan its solution in a systematic and orderly manner.

2.10. SAQ

1. Write a short note on functions in Excel?
2. Define Algorithm
3. What is Flowchart?
4. What are the symbols of Flowchart ?
5. Write an Algorithm for perimeter of Triangle ?
6. What are the basic steps involved In problem solving?
7. Differentiate between Algorithm and Flowchart.
8. Write an algorithm to find greatest of given three numbers.

Unit – III

3.0. Objective

3.1. Introduction to DTP

3.1.1. The possibilities of DTP

3.1.2. Choosing the printing house, paper quality, right quality

3.3. Fonts

3.4. Hardware Requirements for DTP

3.5. Summary

3.6. SAQ

3.0. Objective

After completion of this module students will become familiar with: Desktop publishing, basic knowledge about Desktop Publications.

3.1. Introduction

This module introduces the student to the basic concepts of desktop publishing using MS Publisher. Students will use the publishing software to create a greeting card and brochure. Publisher is a desktop publishing application that differs from MS Word in that the emphasis is placed on page layout and design rather than text composition and proofing. It uses “blocks” such as text blocks and graphics blocks that can be easily moved around the page for designing. The tutorials and instructions are based on MS Publisher. Other programs can be used to create the projects however the instructions may not apply for each step.

3.2. The Possibilities of DTP

The potential of DTP is evident if one considers the number of books that is being published in recent years and the impressive quality of these books. With DTP at our disposal, it no longer needs skilled personnel for specific jobs such as designing, layout planning or printing. These jobs can be done at home. On a PC, with no special expertise. Even printing may be done on ordinary printers at home unless professional printing is called for, in which case one may go to a printing house. Over these, designing dozens of presentations takes as little time as could not be imagined just a few years back.

Whatever a publication may be intended for, it is important that one makes the right selection of its fundamental components. For instance, unless the work is carried out by a competent printing house, even a well-planned design will not turn out to be impressive. Apart from the printing house, there are some other basic factors to be considered, the major ones being, the paper quality, the colours used for printing and the fonts selected.

3.2.1. Choosing the printing house, paper quality, right quality

The first thing to keep in mind is that comparing paper to paper can be very difficult, as many of the terms and measurements used are not standardized.

Weight

Many papers in North America, for example, are labeled according to their weight, as opposed to grammage (which measures the density of paper in terms of grams per square metre). The challenge in working with weight is that it is not standardized. It is based on weight of a paper ream of 500 sheets; however, this is based on the traditional size of uncut sheets, which varies with different paper types.

Texture

Texture is another variable when working with paper stock. Paper can be uncoated or coated. Coated stock runs the gamut from matte (the roughest) to gloss (the smoothest). Texture can make a huge difference in how a document is perceived by the reader, and it also can greatly effect readability.

Opacity

Opacity is a measure of a paper's 'see through' characteristics. It is measured using a scale from 1 to 100; the higher the opacity, the less chance that higher ink areas will be seen through the back of the sheet, an important factor to consider if you are printing on both sides of a document.

Caliper

If you are creating a job that will be going through a mailing house, finding out the caliper of the paper is an important part of the process. This is the thickness of paper when measured in micrometers. Postal regulations require

certain caliper sizes for specific types of bulk mail. Consult with the post office and your printer for these specifications.

Brightness

Brightness is a further factor to keep in mind. It is measured from 0 to 100 percent, with bright white sheets in the above 90 range.

Price

Budget wise, paper choice can make a huge difference when it comes to your print project. A quote from your printer for a job using newsprint, for example, will generally be far lower than one for a high end coated stock. The bigger the run, the more effect paper choice has on the overall price of your print job.

When all is said and done, the best advice for a desktop publisher is to get samples of different papers from your printer, and compare them to see which one best suites the document you are printing and your budget.

3.3. Fonts

Font is a key factor of Desktop publishing. Different with the fond used in system display or web browsing, it requires more fonts to show the content, to reflect the design or enhance the visual effect in DTP. In Desktop publishing, it is necessary to know below several things about font:

1 Font Code

Different characters use difference code. For Text with special code, it requires the corresponding encoding font to correctly show them. For example, text in GB code can only normally show by font in GB code, it will be unrecognizable if other encoding font is applied. If Unicode is applied, it can put all kinds of encoding font into a same font file.

2 Font format

Font format refers to the data format of font, below is the common used font format:

PostScript

PostScript records the shape of characters in the mode of outline, which use four control points to describe a curve and utilize Bezier curve to make mathematical calculation. In this way, the outline shape of font is created.

There are several kinds of PostScript font:

Type 1: one of the most popular font format, most of English, Chinese, Japanese and Korean.etc apply this format.

Type 2: one of the early Adobe font format.

Type 3: Japanese font format Adobe used.

CID: CID is the abbreviation of Character ID, its font format is designed for double byte characters, such as Chinese, Japanese and Korean.etc, its structure is simpler than Type 1 and directly matches the data of font outline by CMap document, so it can improve the print speed and save Memory.

TrueType

TrueType font format is developed by Apple and Microsoft, which is used in the operation system of Macintosh and Windows. TrueType is same as PostScript, which use Bezier curve to descript the outline characters. The font can be zoomed in or zoomed out by any size or made other property changes.

OpenType

In the font outline of OpenType, it can handle all kinds of character, such as fancy ligatures and decorative variant in western characters. Also, OpenType allows showing different glyphs for the same character, which means to allow multiple writing for the character. In addition, as OpenType applies Unicode, which includes different character encoding in the same set of font, so it can better support multi-language texts?

3 Font type

No matter it is Western or Chinese, it can be divided into two categories: Serif type and Sans-serif type. Serif type means there are obvious decorative serif in the ending of strokes and the thickness is different for the strokes of different direction. Sans-serif type refers to the font without additional serif and with same thickness of strokes.

4 Font family

In the Western, there are usually a set of variation for the same font in the aspect of strokes and font width. Such series of font is called Font Family. For Chinese, as there are huge characters, it is difficult to make many font family same as Western. However, for the basic black font and Song font, there are relevant series of font.

5 Composite font

It refers to the compound font which consists of a kind of specific Chinese characters, punctuation, symbols, and specific English font, font synthesis of numbers. It can try to keep the design style of the source file with this kind of font.

SAQ

1. write a short note on applications of DTP?
2. List the difference between MS Office and DTP work?

3.4. Hardware requirements for DTP

The production of high quality documents can be achieved with computers large and small. However, the field of desktop publishing is normally associated with small computers, such as the ubiquitous microcomputer. Indeed, DTP was born on the Apple Macintosh computer. Discussion will, therefore, concentrate on this area. However, DTP can be carried out on the full range of machines, ranging from the inexpensive home computer to the 32-bit microcomputer and powerful engineering 'workstations' seen today. For professional results, DTP requires a microcomputer with considerable power. This is partly because of the need to process, print and display information graphically. Page make-up software is also becoming more demanding on machine resources. DTP can be carried out on most brands of microcomputer but normally they **fall broadly into four classes:**

—

Apple Macintosh

—

IBM PS2, compatibles with PS2 and the older PC compatibles

—

other microcomputers, such as Atari, Commodore

—

so-called workstations, e.g. Sun, Apollo, which were originally devised for engineering applications, such as computer-aided design. These now overlap in price to some extent with microcomputers. Using the IBM PS/2 range of

microcomputers as an example (considerations for others will be similar), the following will need to be taken into account:

Processor power. A 32-bit processor is recommended. The 80386SX model seems to be a good choice at the moment, as it is priced competitively against the previous 80286 processor. It is also likely to be advantageous to use this chip if the OS/2 operating system is used.

RAM (random access memory). Machines are obtainable with a variety of RAM configurations. Two megabytes is probably a reasonable amount, although five are likely to be needed for the new operating system OS/2.

Fixed disk drives. Forty megabytes is the minimum amount acceptable and more should be obtained if possible, especially if images are to be stored. Not to be overlooked is the speed of access to the data on the disk.

The screen. With DTP, it is essential to have a screen which can display data graphically. In addition, in order to design the page on the screen, it is convenient (possibly essential) to have a display which can show a whole A4 page, and possibly two on the screen. It will also be helpful to have a screen with a higher resolution than normally seen on a microcomputer. This will enable extremely small font sizes to be seen. A colour screen might also be necessary, if colour images are to be handled. If particular screen fonts need to be employed, it will be necessary to install them.

Printer.

The printer required depends, in part, on the quality of the output required. Laser printers are able to print a page graphically so that line drawings and halftone images can be printed. The quality of the output is dependent on the resolution (how close the dots can be printed). Normally 300 DPI (dots per inch) is the resolution available, but up to 600 DPI can be obtained, at a price. Other printers can also print graphically, and even the humble dot-matrix printer or the ink-jet printer can be used in some circumstances. The output quality is likely to be less good than the laser printer, however. The speed of printing will also depend on how powerful the laser printer is. They normally contain a microprocessor and RAM memory; if graphical data is to be printed, two megabytes of RAM are likely to be needed. Storage of a range of fonts will also take up memory space in the printer, although they

can be downloaded from the computer or stored in plug-in font cartridges. If the laser printer is to be used heavily, it is worthwhile investing in a more expensive model. Pages can be described by a page description language, the best known being PostScript. The language is processed by an interpreter in the printer. Even though PostScript printers tend to be more expensive than other types, there are advantages, such as the fact that fonts of different sizes do not need to be stored. They are generated mathematically from so-called outline fonts. In addition, a PostScript page can be printed on compatible printers with differing resolutions. It is even possible to use a phototypesetting device to produce the page at much higher resolution than the laser printer, all this without changing the actual data. Hewlett Packard produces laser printers which have also established themselves as a popular standard.

Scanners

Scanners are used to capture data from the printed page. They can be categorised according to the way they carry out the scanning process. One kind moves the paper across the reading device, a second moves the scanner over the paper and the third is portable. Some scanners can handle different shades of grey or colour data. When the data has been captured, it can be treated in different ways. Characters can be analysed and recognised by optical character equipment.

Phototypesetter

These machines, also known as image setters, give output with a resolution above a thousand dots per inch and hence are used to produce quality output.

Networks

Microcomputers can be connected into local area networks (LAN). This allows different users to work on the same or related files, which can then be brought into the same document.

3.5. Summary

- Desktop publishing (DTP) is the use of personal computers to design books and booklets that are intended to be printed by ink jet or laser printers.

- The software that supports desktop publishing has a WYSIWYG graphical user interface (GUI) to make the set-up for publishing as easy as possible.
- **The Features of Desktop Publishing Apps**
 - Support for Numerous Project Types. The ability to create a variety of projects defines the flexibility of a desktop publishing application. ...
 - Layout Tools. ...
 - Text Tools. ...
 - Graphic Tools. ...
 - Printing and Sharing.

3.6. SAQ

- 1. Discuss Hardware requirements for DTP?**
- 2. What are the possibilities of DTP in real time?**
- 3. Write short note on fonts in DTP**
- 4. Discuss about printers**

Unit - IV

4.0. Objective

4.1. Introduction

4.2. Beginning a design

4.3. General design considerations

4.4. Text organization

4.5. Summary

4.6. SAQ

4.0. Objective

At the end of this unit the students will be able to understand the fundamentals of Multimedia.

4.1. Introduction

The idea of desktop publishing has broadened sizably since its introduced in the 1980's

In nutshell, desktop publishing is the process of preparing documents for printing via special page layout software know as Desktop Publishing software.

4.2. Beginning a design

Unless a publication is based on a well-planned design layout, it will not impress the readers. Apart from the visual appeal of a publication, other factors such as the text content, the way the text is organized, the fonts used, etc. are to be considered while designing a document. Designing may be done by following the steps given below in order:

Step 1:

A good design is the result of careful planning and attention paid to details of the project such as, the photos included, type of fonts, type of paper

used for printing, etc. Before starting the design of a project, the following question are to be considered carefully:

- Who will read the project and what are their expectations?
- What obstacles are to be overcome for the project to succeed?
- In what format will readers prefer the project presentation to appear?
- How does the present publication relate to the other publications already released?

Step 2:

Make a rough sketch on paper of the designs envisaged. This may contain just simple hand sketches and the proportion between various components which may be only a rough approximation.

Step 3:

Try to study the works of others. Make a collection of various works and analyse why they are, or why they are not, impressive.

Step 4:

Collect various images and forms from different websites and CD's as also paper cuttings from different newspapers/ brochures and advertisements, which can later be scanned and used in different projects. Nowadays, a number of clip arts are available for use in projects. Clip arts are readymade illustrations, logos and cartoons which can also be customized as required.

4.3. General design considerations

The principles of design are the rules a designer must follow to create an effective and attractive composition. The fundamental principles of design are: Emphasis, Balance and Alignment, Contrast, Repetition, Proportion, Movement and White Space.

1. Emphasis

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Symmetrical designs are always pleasing, if not occasionally boring. Asymmetrical designs are bolder and can bring real visual interest and movement (more on that later!) to your composition.

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As you seek out examples of really strong, effective design, you'll notice most designs only feature one or two typefaces. That's because contrast can be effectively achieved with two strong fonts (or even one strong typeface in different weights). As you add fonts, you dilute and confuse the purpose of your design.

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Repetition can be important beyond one printed product. Current packaging design is heavily embracing beautiful illustrated patterns. Anyone thinking about a start up knows one of the first things you need is a strong logo to feature on your website, business cards, social media and more.

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Proportion is the visual size and weight of elements in a composition and how they relate to each other. It often helps to approach your design in sections, instead of as a whole.

Grouping related items can give them importance at a smaller size—think of a box at the bottom of your poster for ticket information or a sidebar on a website for a search bar. Proportion can be achieved only if all elements of your design are well-sized and thoughtfully placed. Once you master alignment, balance, and contrast, proportion should emerge organically.

6. Movement

Movement is controlling the elements in a composition so that the eye is led to move from one to the next and the information is properly communicated

to your audience. Movement creates the story or the narrative of your work: a band is playing, it's at this location, it's at this time, here's how you get tickets. The elements above—especially balance, alignment, and contrast—will work towards that goal. If you look at your design and feel your eye get “stuck” anywhere on it—an element is too big, too bold, slightly off-center, not a complimentary colour—go back and adjust until everything is in harmony.

7. White space

All of the other principles of design deal with what you add to your design. White space (or negative space) is the only one that specifically deals with what you *don't* add. White space is exactly that—the empty page around the elements in your composition. For beginning designers it can be a perilous zone. Often simply giving a composition more room to breathe can upgrade it from mediocre to successful.

White space isn't sitting there doing nothing—it's creating hierarchy and organization. Our brains naturally associate ample white space around an element with importance and luxury. It's telling our eyes that objects in one region are grouped separately from objects elsewhere.

SAQ

1. Write a short note on general specification of DTP?

4.4. Text organization

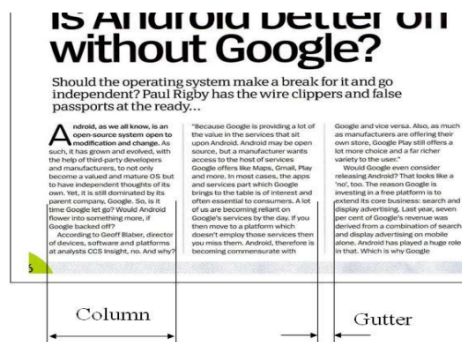
Header: space at the top of a document which may contain a headline, other text or graphics or a page number.



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Columns : vertical blocks of text which are separated by Gutters.



Headline: The title of the article. Usually placed in a different, larger or bolder font.

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Left & Right Margin : Blank space between graphics or text and the edge of the page.

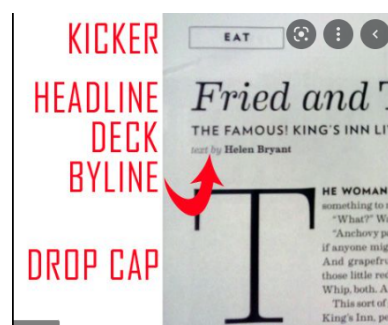
Caption : A line of text used to describe a graphic item.



Drop Capital: an extra large letter at the start of a paragraph used to grab the reader's attention.



Kickers: Kickers are statements written above the headlines, as introduction to the topic under the headline. They can also be used to categorize topics



4.5. Summary

- The fundamental principles of design are: Emphasis, Balance and Alignment, Contrast, Repetition, Proportion, Movement and White Space

- A good design is the result of careful planning and attention paid to details of the project such as, the photos included, type of fonts, type of paper used for printing, etc
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4.6. SAQ

1. Discuss need of design?
2. Write short note on design considerations?
3. What are Headers and footers?
4. What are kickers?
5. What are left and right margins?

INTRODUCTIN TO PAGEMAKER

Unit - I

- 1.0.Objective
 - 1.1. Introduction
 - 1.2.Hardware requirements
 - 1.3.General design considerations
 - 1.4. Text Organization
 - 1.5. Designing Common Media publications
 - 1.6. Summary
 - 1.7.SAQ
-

1.0. Objective

At the end of this unit the students will be able to understand the fundamentals of designing common media, publications such as newsletters, visiting cards etc.

1.2. Introduction

The idea of desktop publishing has broadened sizably since its introduced in the 1980's. In nutshell, desktop publishing is the processes of preparing documents for printing via special page layout software know as Desktop Publishing software. Fundamentals of designing common media, publications such as newsletters, cards, Letter Heads, Small Advertisements, Long Advertisements, Visiting Cards, Brochures, Catalogues Redesigning etc. are possibilities of DTP.



1.2. Hardware requirements for DTP

The production of high quality documents can be achieved with computers large and small. However, the field of desktop publishing is normally associated with small computers, such as the ubiquitous microcomputer. Indeed, DTP was born on the Apple Macintosh computer. Discussion will, therefore, concentrate on this area. However, DTP can be carried out on the full range of machines, ranging from the inexpensive home computer to the 32-bit microcomputer and powerful engineering 'workstations' seen today. For professional results, DTP requires a microcomputer with considerable power. This is partly because of the need to process, print and display information graphically. Page make-up software is also becoming more demanding on machine resources. DTP can be carried out on most brands of microcomputer but normally they **fall broadly into four classes:**

—

Apple Macintosh

—

IBM PS2, compatibles with PS2 and the older PC compatibles

—

other microcomputers, such as Atari, Commodore

—

so-called workstations, e.g. Sun, Apollo, which were originally devised for engineering applications, such as computer-aided design. These now overlap

in price to some extent with microcomputers. Using the IBM PS/2 range of microcomputers as an example (considerations for others will be similar), the following will need to be taken into account:

Processor power. A 32-bit processor is recommended. The 80386SX model seems to be a good choice at the moment, as it is priced competitively against the previous 80286 processor. It is also likely to be advantageous to use this chip if the OS/2 operating system is used RAM (random access memory). Machines are obtainable with a variety of RAM configurations. Two megabytes is probably a reasonable amount, although five are likely to be needed for the new operating system OS/2. Fixed disk drives. Forty megabytes is the minimum amount acceptable and more should be obtained if possible, especially if images are to be stored. Not to be overlooked is the speed of access to the data on the disk. The screen. With DTP, it is essential to have a screen which can display data graphically. In addition, in order to design the page on the screen, it is convenient (possibly essential) to have a display which can show a whole A4 page, and possibly two on the screen. It will also be helpful to have a screen with a higher resolution than normally seen on a microcomputer. This will enable extremely small font sizes to be seen. A colour screen might also be necessary, if colour images are to be handled. If particular screen fonts need to be employed, it will be necessary to install them. Printer.

The printer required depends, in part, on the quality of the output required. Laser printers are able to print a page graphically so that line drawings and halftone images can be printed. The quality of the output is dependent on the resolution (how close the dots can be printed). Normally 300 DPI (dots per inch) is the resolution available, but up to 600 DPI can be obtained, at a price. Other printers can also print graphically, and even the humble dot-matrix printer or the ink-jet printer can be used in some circumstances. The output quality is likely to be less good than the laser printer, however. The speed of printing will also depend on how powerful the laser printer is. They normally contain a microprocessor and RAM memory; if graphical data is to be printed, two megabytes of RAM are likely to be needed. Storage of a

range of fonts will also take up memory space in the printer, although they can be downloaded from the computer or stored in plug-in font cartridges. If the laser printer is to be used heavily, it is worthwhile investing in a more expensive model. Pages can be described by a page description language, the best known being PostScript. The language is processed by an interpreter in the printer. Even though PostScript printers tend to be more expensive than other types, there are advantages, such as the fact that fonts of different sizes do not need to be stored. They are generated mathematically from so-called outline fonts. In addition, a PostScript page can be printed on compatible printers with differing resolutions. It is even possible to use a phototypesetting device to produce the page at much higher resolution than the laser printer, all this without changing the actual data. Hewlett Packard produces laser printers which have also established themselves as a popular standard.

Scanners

Scanners are used to capture data from the printed page. They can be categorised according to the way they carry out the scanning process. One kind moves the paper across the reading device, a second moves the scanner over the paper and the third is portable. Some scanners can handle different shades of grey or colour data. When the data has been captured, it can be treated in different ways. Characters can be analysed and recognised by optical character equipment.

Phototypesetter

These machines, also known as image setters, give output with a resolution above a thousand dots per inch and hence are used to produce quality output.

Networks

Microcomputers can be connected into local area networks (LAN). This allows different users to work on the same or related files, which can then be brought into the same document.

1.3. General design considerations

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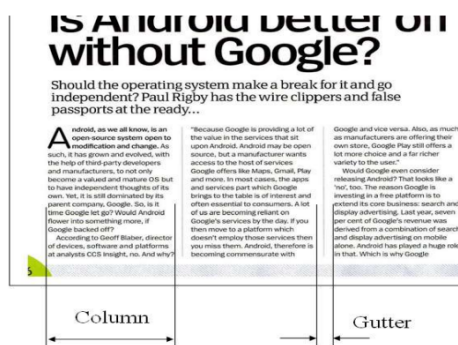
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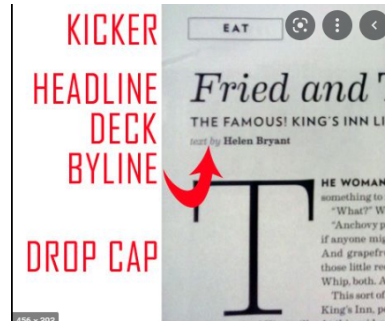
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SAQ

1. Discuss Broachers, letter heads, pamphlets?

1.5.Designing Common Media publications

When making any kind of printed product, it is important to keep publication design at the top of your mind so that your product is visually interesting, informative, and will keep your customers coming back for more. Publication Design is only one out of 8 different types of graphic design.

Publication design in the layout and graphic design for printed materials such as newsletters, magazines, books, brochures, etc. “Graphic designers that specialize in publications work with editors and publishers to create layouts with carefully selected typography and accompanying artwork, which includes photography, graphics and illustrations.” When printing a product, it’s necessary to take your booklet design into account to create a high-quality and professional looking printed work. When utilized correctly, publication design can inform and instruct an audience through the combination of words, graphics, and layout.

Newsletters

You can use our free downloadable blank templates or our online design tool to create a newsletter quickly and easily. Here are some pieces of advice when starting your newsletter:

3. Know Your Audience! Remember your newsletter is not for everyone. Know your target audience and direct your articles and writing to them

4. Be Recognizable! Make your newsletter look and sound like your organization. This will build your brand image and help increase recognition
5. Get a Schedule and Stick with it! Consistency is important. Whether this is monthly, quarterly, or yearly, keep on-track
6. Keep Your Eye on the Future! Generate story ideas ahead of time that correspond to seasonal events, sales, and product launches
7. Know Your Production Time! Each issue goes through a series of steps from the initial concept to shipping, know the amount of time necessary and plan accordingly
8. Stay Consistent! Each year, use similar colors and design elements that identifies your company and sets the tone for your newsletter

Letter heads

Letter heads are commonly used by companies as well as by persons. The letter head in which a letter is written creates an immediate impression of the person or the company that sends the letter. the design of letter heads is more a matter of personal choices. The following guidelines serve to design impressive letterheads:

- Align the matter so that it is suitable for visualisation.
- Include the information on the letterhead in boxes(avoid using boxes with border).
- The logo must be properly placed at the top-left or to the top-right corner and must stand out separately from other information.
- Place the address and other information in headers/footers on the left/right side.
- Use watermarks to place visuals behind the text.
- Experiment with contrasting fonts, weights and styles to select a coherent combination and
- Use abbreviations whenever possible.

Small Advertisements

Small advertisements occupy only a small area of a newspaper page. All such advertisements usually appear in a common section under a common head in the newspaper. These advertisements are often placed close to each other and the chance of such an advertisement escaping the reader's notice are high. This becomes higher if the advertisement appears similar to the adjacent ones. To overcome this, the advertisement has to be presented in such a way that it stands out strikingly apart. The following points are to be considered

- Surround heading with plenty of white space and try to design the headlines to attract attention
- Include a coupon whenever possible.
- Use border and white space to isolate and highlight the advertisement.
- Always include a caption with visual and
- Always place the logo, the address, etc in the same location.

Long Advertisements

Long advertisements are those which contain substantial amount of information in the form of text, tables, diagrams, etc. Such advertisements seldom escape the reader's notice and for this reason, they are to be written with the text properly edited and the presentation layout well-planned. Follow are some conditions in designing such advertisements are listed below

- Break long documents into short sections to facilitate reading
- Use a deep indent
- Surround headers and footers with white space
- Use distinct typographic contrast to differentiate various subhead levels.
- Use uppercase type with care and
- Use colour whenever possible.

Broachers

A brochure is an informative paper document (often also used for advertising) that can be folded into a template, pamphlet, or leaflet. A brochure can also be a set of related unfolded papers put into a pocket folder or packet.

- Command Attention With the Cover. ...

- Attract Attention With Compelling Text. ...
- Set the Tone With Color. ...
- Choose the Right Font and Font Size. ...
- Use White Space Strategically. ...
- Organize With Boxes. ...
- Choose an Appropriate Fold. ...
- Bring the Brochure to Life with Photographs.

Catalogues

Opening/using a template document, Using the text, picture, and color tools appropriately, to create publications for home or business use. A catalogue is a book or magazine containing details and pictures of items currently being offered for sale, especially as used by companies that do much of their business by mail order. For years the traditional size of catalogs was 8.5 × 11 inches. Now, more businesses are using 12" × 12" and other large sizes that allow them to include more lifestyle images and tell more of a story.

- Gather all your product data. Start with gathering product information such as composition, dimensions, customer testimonials, pricing and so on. ...
- Plan catalogue structure and layout. ...
- Design your product catalogue. ...
- Publish or download the catalogue.

1.6. Summary

- The fundamental principles of design are: Emphasis, Balance and Alignment, Contrast, Repetition, Proportion, Movement and White Space.
- Small advertisements occupy only a small area of a newspaper page. All such advertisements usually appear in a common section under a common head in the newspaper
- A brochure is an informative paper document (often also used for advertising) that can be folded into a template, pamphlet, or leaflet. A brochure can also be a set of related unfolded papers put into a pocket folder or packet
- A catalogue is a book or magazine containing details and pictures of items currently being offered for sale, especially as

used by companies that do much of their business by mail order

1.7. SAQ

1. Discuss general specifications for DTP?
2. Discuss hardware and software requirements for DTP?
3. Write a short note on Long advertisements, short advertisements, brochures?

Unit – II PageMaker

- 2.0. Objective
 - 2.1. Introduction
 - 2.2. Basics menus and Tools
 - 2.3. Editing Text
 - 2.4. The story editor
 - 2.5. Saving and closing the publication
 - 2.6. Summary
 - 2.7. SAQ
-

2.0. Objective

students will define desktop publishing software, Open, edit, view, save, print, and close publications, View the PageMaker Program Window, Work with the toolbox, Plan a publication by the end of this unit

2.1. Introduction

Adobe PageMaker 7 is the “world’s leading cross- platform professional page layout software”. PageMaker is primarily used for designing and producing publication that requires a combination of text and graphics. PageMaker 7 has a rich array of facilities to import text and artwork from other computer application packages, as well as allowing you to generate these directly form within PageMaker itself. PageMaker can handle text better than Illustrator and PhotoShop and also give you the flexibility of graphic control not available in world processors.

2.2. Basics menus and Tools**Menus****FILE MENU**

New: New command is used to create a new publication. This command gives rise to a dialog box where you define the various options before opening a new page of the publication.

Open: Open allow you to open an existing PageMaker file.

Save: Save command saves the current publication. For multiple opened are to be saved press the shift key while choosing the Save option.

Revert: Revert command rolls back all the changes made since the last save. It is the same as closing the publishing without saving and opening it again.

Place: Place command is used to place text and graphics into the publication.

Acquire: The Acquire command is used to scan an image into your publication.

Export: Export command lets you export you publications into the format you select.

EDIT MENU

Paste Multiple: Paste Multiple lets you paste multiple copies of text or graphics.

Paste Special: Paste Special is used to specify the format to use when you paste an object into your publication.

Insert Object: Insert Object is used to specify the format to be used to insert an OLE embedded object within a PageMaker publication.

Edit Story: Edit Story is used to toggle between the word processing mode and the layout mode.

LAYOUT MENU

Sort Pages: When you select Sort Page command, a dialog box appears with all the pages of the publication. You can rearrange the pages in the publication graphically.

Column Guides: Column Guides lets you divide the pages of the publication into

different column of equal size.

Auto Flow: Auto Flow is used to flow the text onto the pages of the publication on its own from a loaded text icon. It flows the text into pages from columns to columns and also adds pages on its own depending on the availability of text.

TYPE MENU

Define Styles: This option will present you a dialog box with the list of styles used in the publication. You can add, modify and delete styles from this dialog box.

ELEMENT MENU

Frame: Frame has options for frame alignment, position and margins.

Align Objects: Align Objects lets you align multiple objects relative to each other.

Link Options: Link Options is used to define whether the linked text or graphic is to be updated along with the publication in use and also its frequency.

UTILITIES MENU

Plug-ins: Plug-ins has a list of sub commands, which lists out the various plug-ins, which have been included with PageMaker as additions.

VIEW MENU

Display Master Items: Display Master Items toggle the display of items from the master pages to be reflected in the current page of the publication.

Display Non-Printing Items: Display Non-Printing items toggle the display of nonprinting items.

WINDOW MENU

Show Tools: Hide/Show tools toggles the display of PageMaker toolbar.

Show Control Palette: Show/Hide Control Panel toggles the display of control panel on the screen.

Show Colors: Show/Hide Colors Toggles the display of the Color Palette on the screen.

Show Style: Show/Hide Styles toggles the display of the Styles Palette on the screen.

Show Layers: Show/Hide Layers toggles the display of the Layers Palette on the screen.












Show Master Pages: Show/Hide Master Pages toggle the display of the Master Pages Palette on the screen.





Show Hyperlinks: Show/Hide Hyperlinks toggles the display of the Hyperlink Palette on the screen.

Tools

The toolbox is available on the screen and you can drag the toolbox by its title bar.

If the toolbox is not available on the screen then click on the window to bring the window menu, now click on show tools. the toolbox will appear in front of the document window and you can hide the toolbox whenever you don't need it. To hide the toolbox click on the hide tools from the window.

Icon	Function	Description
	Version Window	Displays, when clicked, the version of PageMaker that is being used. To remove the <i>Version Window</i> , click inside this window.
	Pointer	Selects lines, shapes, graphics, and text boxes. Selected items can be moved, resized, and have their attributes changed.
	Text	Selects text or sets insertion point for adding text.
	Rotate	Rotates text blocks and graphics to almost any angle.
	Crop	Crops graphics (press and hold the [Shift] key to crop proportionally).
	Line	Creates straight lines at almost any angle.
	Constrained Line	Creates vertical, horizontal and 45-degree-angle lines.
	Rectangle	Creates square and rectangle shapes.
	Rectangle Text Box	Creates rectangular-shaped text boxes.
	Ellipse	Creates circular and oval shapes.
	Ellipse Text Box	Creates circular and oval-shaped text boxes.

	Polygon	Creates basic polygons.
	Polygon Text Box	Creates polygon-shaped text boxes.
	Hand (Panning)	Allows the user to drag a page for optimal view.
	Zoom	Magnifies or reduces the area of the page; useful for close placements or viewing of graphics.

SAQ

1. Discuss any five tools used in PageMaker?
2. Discuss file menu in PageMaker?

2.3. Editing Text**Editing Text in the Document**

Editing means making changes to the text. When you edit a document, you revise its text. Editing encompasses many tasks, such as inserting and deleting words and phrases, correcting errors, and moving and copying text to different places in the document.

1. Selecting Text

Text can be selected using the **mouse** or the **keyboard**.

Selecting Text using the mouse

To select text using a mouse, follow these steps :

1. Place the Insertion point to the left of the first character to be selected.
2. Press the left mouse button and drag the mouse to a position where you want to stop selecting.
3. Release the mouse button.
4. The selected text gets highlighted.

To Select : Press

A Word : Double-click with I-beam

A Paragraph : Triple-click with I-beam

Selecting Text using the Keyboard

To select text using a keyboard, follow these steps :

1. Place the Insertion point to the left of the first character you wish to select.
2. The **Shift** key is pressed down and the movement keys are used to highlight the required text.
3. When the **Shift** key is released, the text is selected.

To Select	Press
One character to the left	Shift + ←
One character to the right	Shift + →
One line up	Shift + ↑
One line down	Shift + ↓
To the end of the current line	Shift + End
To the beginning of the current line	Shift + Home
Entire Document	Ctrl + A

2. Deleting Text

You can easily delete a character, or word, or block of text.

To delete a character, do the following :

1. Position the insertion point to the **left of the character** to be deleted.
2. Press **Delete** key on the keyboard. (or)
 1. Position the insertion point to the **right of the character** to be deleted.
 2. Press **Backspace** key on the keyboard.

To delete a block of text, do the following :

1. Select the text to be deleted.
2. Press **Delete** or **Backspace** in the keyboard (or) in the menu bar choose **Edit > Clear**.
3. Undo Command

The **Undo** command is used to reverse the action of the last command. To reverse the last command, click on **Edit>Undo** in the menu bar (or) press **Ctrl + Z** in the keyboard.

4. Copying and Moving Text

The **Copy** and **Paste** commands of PageMaker can be used to copy text from one location in a document and paste it at another location. The **Copy** command creates a duplicate of the selected text, leaving the original text unchanged. The **Paste** command pastes the copied text at the position where the insertion point is placed.

The **Cut** and **Paste** commands can be used to move text from one position in a document to the other. The **Cut** command deletes the selected text from its original position. The **Paste** command then places this text at the position where the insertion point is placed.

Moving the Text

The selected text can be easily cut and pasted in the required location.

To cut and paste text .

1. Select the text to be moved.
2. Choose **Edit > Cut** in the menu bar. (or) Press **Ctrl + X** in the keyboard.
(or) Click the right mouse button and choose **cut** from the pop-up menu.
3. Insertion point is moved to the place where the text is to be pasted.
4. Choose **Edit > Paste** in the menu bar. (or) Press **Ctrl + V** in the keyboard.
(or) Click the right mouse button and choose **Paste** from the pop-up menu.

The text can also be pasted in this way to another location or another type of document.

The following keyboard shortcuts can be used to move text

Ctrl + X → Cut

Ctrl + V → Paste

Copying the Text

The selected text can be easily copied and pasted in the required location.

To copy and paste text

1. Select the text to be copied.
2. Choose **Edit > Copy** in the menu bar (or) Press **Ctrl + C** in the keyboard (or) Click the right mouse button and choose **Copy** from the pop-up menu.

3. Insertion point is moved to the place where the text is to be pasted.
4. Choose **Edit > Paste** in the menu bar (or) **Press Ctrl + V** in the keyboard (or) Click the right mouse button and choose **Paste** from the pop-up menu.

The text can also be pasted in this way to another location.

Keyboard shortcuts for copy and paste:

Ctrl + C → **Copy**

Ctrl + V → **Paste**

2.4. The story editor

PageMaker's story editor is a text-only view where you can edit text quickly and easily because PageMaker does not have to display graphics or sophisticated formatting, and stories are all together in one place instead of being spread out over various pages.

To edit text in a format that looks and behaves more like a word processor use the *Story Editor*. The *Story Editor* displays all the text in a particular story at the same size in block format for easy editing, even if the story spans several pages in your document. A scroll bar to the right of the text allows you to scroll through the text block. The *Spell Checker* and the *Find* and *Change* commands are available only within the *Story Editor*. Because the *Story Editor* does not display all of the text enhancements, editing and typing text here is faster than in the layout mode.

Using the Story Editor in PageMaker

The Story Editor

The Story Editor is yet another way to type and edit text in PageMaker. Just click the text you want to edit, press Ctrl + E (or use Edit > Edit Story from the menu), and your story appears in its own word processing window. All the text tool's editing commands (insert, delete cut and paste) are available in the Story Editor. The Story Editor is also equipped with two powerful features that are not there when you use the text tool: a spelling checker and a search-and-replace feature.

- **Menu Option:**

1. Click on the block of text you want to edit
2. From the *Edit* menu, select ***Edit Story***
The text of the entire story will now appear in the *Story Editor*.

Mouse Option:

1. To access the *Story Editor* with the *Pointer* tool, triple-click in a text block

Using the Find and Change Feature

PageMaker allows you to search stories in the *Story Editor* for specific words or phrases and to replace all or some of the occurrences with other words or phrases. In order to simply find an occurrence, use the *Find* feature. In order to change some or all of the occurrences to something else, use the *Change* feature.

Using Find

Make sure you are in the *Story Editor*. The *Spelling*, *Find*, *Find Next*, and *Change* commands are available only in *Story Editor*.

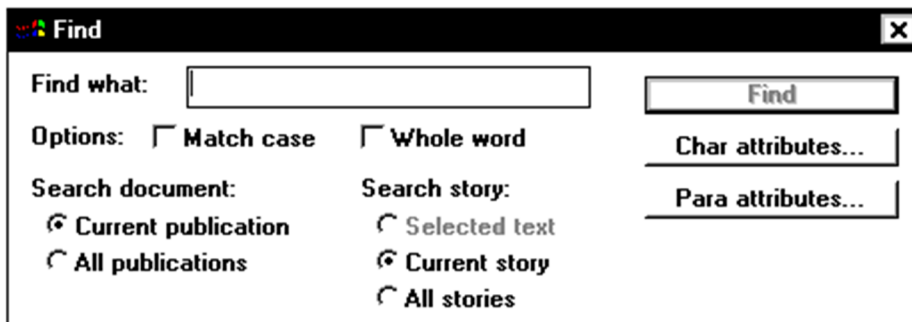
The *Find* feature allows you multiple choices in searching your document and story. The *Search story* function allows you to work with:

Selected text The *Find* feature will search only the text you have selected.

Current story The *Find* feature will only search the current open story.

All stories The *Find* feature will search all stories.

1. From the *Utilities* menu, select ***Find...***
The *Find* dialog box will appear on the screen.



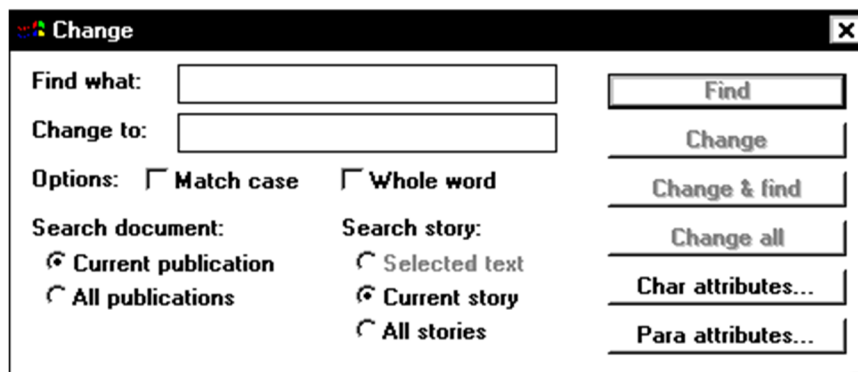
1. In the *Find What* box, type the word or phrase to look for

2. Click **FIND**
3. To find subsequent occurrences of the word or phrase, from the *Utilities* menu, click **FIND** **NEXT**
When no more occurrences exist, the *Search Complete* dialog box will appear.
4. Click **OK**
5. To find another word or phrase, repeat steps 2-5
6. When finished, close the *Find* dialog box

Using Change

Make sure you are in the *Story Editor*.

1. From the *Utilities* menu, select **Change...**
The *Change* dialog box will appear on the screen.



2. In the *Find What* text box type the word or phrase to find
3. In the *Change to* box type the replacement word or phrase
4. To find the first occurrence of the word or phrase, click the **FIND** button

OR

To find and change all occurrences of the word or phrase, click **CHANGE ALL**

(If you selected *Change All*, skip to step 7.)

*WARNING: Use Change All with caution. You may change words you did not mean to change. If you do use Change All, select the **Whole Word** option and review the document to make sure all replacements make sense.*

5. If you selected *Find* in step 4, you now have several options
 - To change the word, click **CHANGE**

- To ignore the word, click **IGNORE**
 - To find the next word, click **FIND NEXT**
 - To change the word and find the next one, click **CHANGE AND FIND**
 - To change all occurrences of the word, click **CHANGE ALL**
6. When the *Search Complete* dialog box appears, click **OK**
 7. Type in a new word or phrase to find and change
OR
Click **CLOSE**

- **Using Spell Check**

Spelling can only be checked in the *Story Editor*. The *Spell Check* feature of PageMaker checks your text against the computer's dictionary. If the computer does not recognize a word, the top left corner of the dialog box will read "Unknown word" followed by the unrecognized word. You have the option of ignoring the word, replacing the word with a new spelling, or adding the word to the computer's dictionary.

If you want the word to remain in the document spelled as it is, click **IGNORE**. For example, the computer will probably not recognize your first and last name, but you do not want their spelling changed. The word will be added to a temporary dictionary that is active until you exit PageMaker.

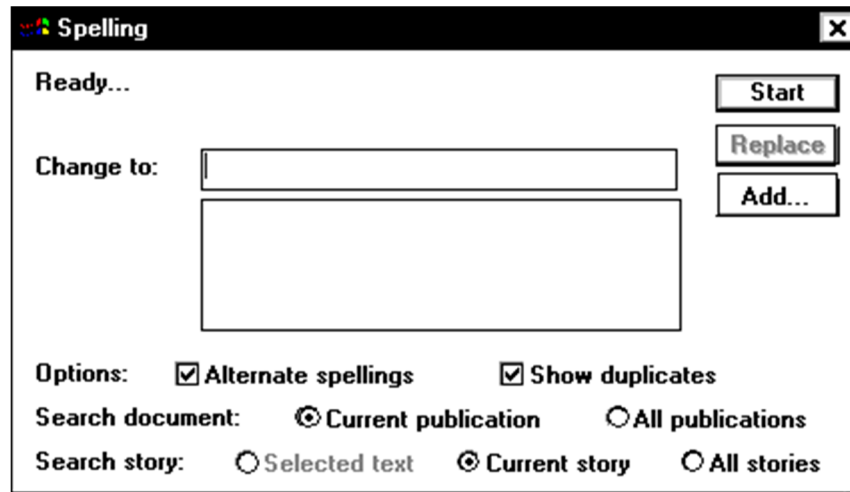
WARNING: If you are working in a general access computer lab, **DO NOT** add words to the dictionary; simply click **IGNORE**.

SAQ

- | |
|---|
| <ol style="list-style-type: none">1. What is story edit? Discuss how to use story edit in PageMaker?2. Discuss find and replace? |
|---|

Check Spelling

1. From the *Utilities* menu, select *Spelling...*
The *Spelling* dialog box will appear on the screen.



2. OPTIONAL: To check all stories in your document, select the *All Stories* option.
3. Click **START**
4. If all the words are recognized by the computer's dictionary, *No Spelling Errors Detected* will appear in the upper left of the dialog box. If this happens continue with step 6.
 - o If a word is not recognized by the computer's dictionary *Unknown Word* will appear in the upper left of the dialog box. In the *Change To* box, delete it and type a new spelling. If this happens, continue with step 5.
 - o If the word is misspelled and the computer's dictionary recognizes it, the word will appear in the *Change To* box. In the text area below the *Change To* box, the computer will list possible spellings for the misspelled word. Select the correct choice, and move on to step 5.
5. Click **REPLACE**
When the spell check is done, the phrase "Spelling Check Complete" will appear.
6. Click **CLOSE**

• Exiting the Story Editor

1. From the *Edit* menu, select **Edit Layout**

OR

From the *Story* menu, select **Close Story**

OR

Click the **CLOSE** box

2.5. Saving and closing the publication

Saving, Closing and Opening Documents

The below section explains about various operations with the documents.

1. Saving a Document

You can save your document for future use. Saving a document allows you to review later and edit the document. Saved file can be used on other computer also.

To save a document for a first time following steps are used:

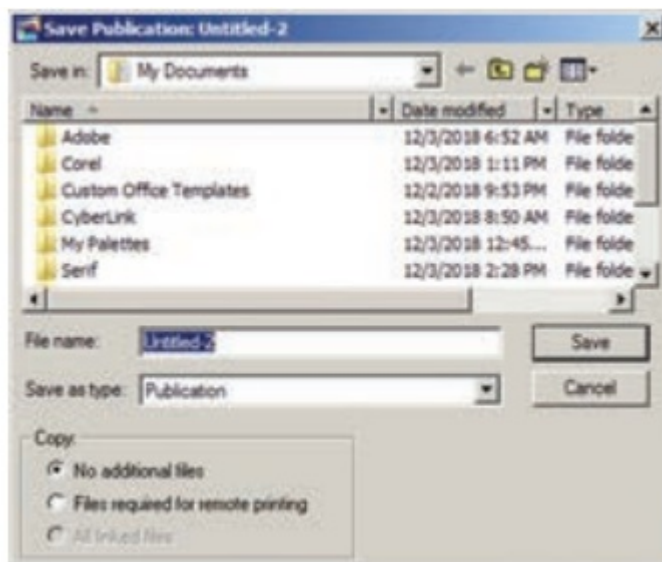
1. (a) Choose **File > Save** in the menu bar. (or)



Click on the **Save icon** () in the Tool bar. (or)

Press **Ctrl + S** in the Keyboard.

A **Save Publication** dialog box as shown in the Figure 1.29 appears on the screen.



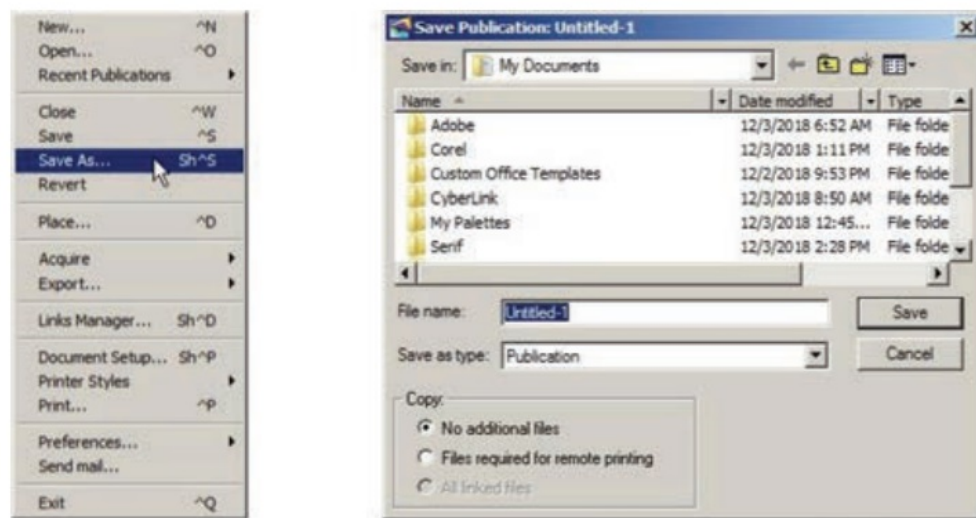
2. The file name is given in the **File name** list box.

3. Then click on the **Save** button to save the document. The document is now saved and a file name appears in the title bar.

Once a file is saved under a name, to save it again the name need not be entered again. The file can be saved simply by selecting the **File > Save** command or by clicking the **Save** button (or) clicking **Ctrl + S** in the keyboard.

2. Saving a Document with a new name or in a different location

You can save a document with a new name or in a different location using **Save AS** command. **Save AS** command creates a new copy of the document. So, two versions of the document exist. The versions are completely separate, and the work you do on one document has no effect on the other.



To save a document with a new name or in a different location:

1. Choose **File > Save As** in the menu bar. (or) Press **Shift + Ctrl + S** in the keyboard.

Now **Save Publication** dialog box will appear. Refer Figure 1.30

2. Type a new name or specify a new location.
3. Click on the **Save** button.

2.6. Summary

- **Selection Tool** : Use the pointer tool to select, move and resize text blocks and graphics.

- **Text Tool** : Use the text tool to type, select , and edit text.
- **Rotating Tool** : Use the rotating tool to select, and rotate objects.
- **Cropping Tool** : Use the cropping tool to trim imported graphics.
- **Line tool** : Use the line tool to draw straight line in any direction.
- **Constrained line tool** : Use the constrained line tool to draw vertical or horizontal lines.
- **Rectangle tool** : Use the rectangle tool to draw rectangles and squares.
- **Rectangle Frame tool** : Use the rectangle frame tool to create a rectangular place holder for text and graphics.
- **Ellipse Tool** : Use the ellipse tool to draw ellipses and squares.
- **Rectangle Frame tool** : Use the Ellipse frame tool to create a circulars or oval place holder for text and graphics.
- **Polygon Tool** : Use the polygon tool to draw Polygons.
- **Polygon Frame tool** : Use the Polygon frame tool to create a Polygonal holder for text and graphics.
- **Hand Tool** : Use the hand tool to Scroll the pages or to preview and text hyperlinks.
- **Zoom Tool** : Use the Zoom tool to Magnify or reduce an area of the page

2.7. SAQ

1. Write short notes on tools in PageMaker?
2. Explain story editor in PageMaker?
3. Discuss menu options in PageMaker?

UNIT - III

3.0. Objective

3.1. Introduction

3.2. Formatting Text

3.3. Tracking, Kerning and Leading

3.4. Style sheets

3.5. Bullets and Numbering

3.6. Summary

3.7. SAQ

3.0. Objective

By the end of this unit students are able to format the text using different techniques like tracking kerning and leading.

3.1. Introduction

Formatting is the process of changing the general arrangement of text, i.e., improving the appearance of the text by using various fonts, fonts colors, and font styles. A font is a set of letters, numbers or symbols in a certain style. Each font looks different from other fonts.

3.2. Formatting text

Formatting is the process of changing the general arrangement of text, i.e., improving the appearance of the text by using various fonts, fonts colors, and font styles. A font is a set of letters, numbers or symbols in a certain style. Each font looks different from other fonts.

Formatting is the process of changing the general arrangement of text, i.e., improving the appearance of the text by using various fonts, fonts colors, and font styles. A font is a set of letters, numbers or symbols in a certain style. Each font looks different from other fonts.

Character Formatting using Character Specifications Dialog Box

Character formatting means displaying text in a certain way. Character formatting consists of text properties - bold, italic, underline, font type, font size, font colour, etc. Refer Figure 1.33, 1.34 and 1.35

The steps to apply character formatting to text are as follows :

1. Select the text to be formatted.
2. Choose **Type > Character** in menu bar (or) Press **Ctrl + T** on the keyboard.

The **Character Specifications** dialog box appears.

3. Make the appropriate changes in the dialog box.

- Click the drop-down menu arrow of the **Font** box and select the desired font.

- Click the drop-down menu arrow of the Font **Size** box and select the font size.

- Click the drop-down menu arrow of the Font **Color** box and select the desired colour.

Click the Bold, Italic, or Underline buttons to make the text bold, italic, or underlined respectively.

4. Click on OK.



Character Formatting using the Control Palette

The Control Palette is especially useful when you are doing lot of formatting.

Its features change based on the object that is selected on your layout.

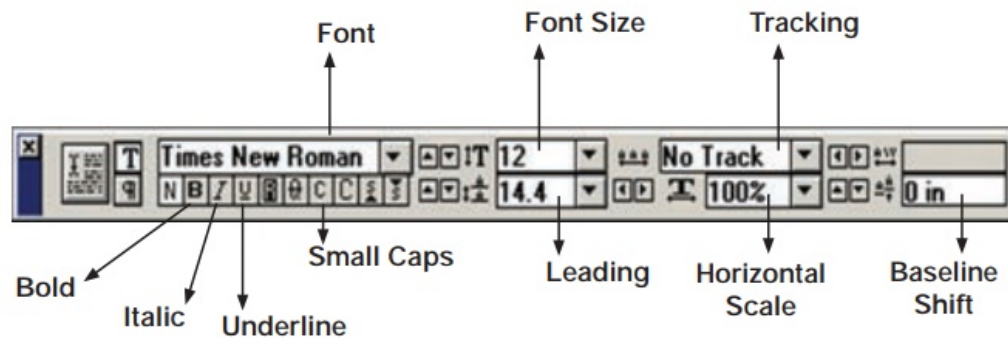
If the Control palette is not showing then use the following steps:

1. Click on **Window > Show Control Palette** sequence in the menu bar. (or)
2. Press **Ctrl + ‘** in the keyboard.

Now the Control Palette appears on the window.

To modify character attributes using the Character Control Palette:

1. Select the text you want to modify.
2. Make the appropriate changes in the Control palette. Refer Figure 1.34



2. Make the appropriate changes in the Control palette.

3. Changing Text Colour

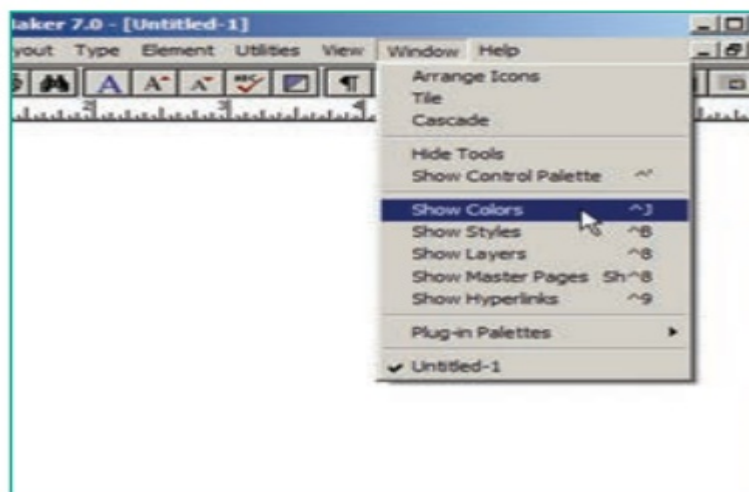
You can change the colour of the text. Your design may look beautiful if you choose a text colour other than black.

To colour characters

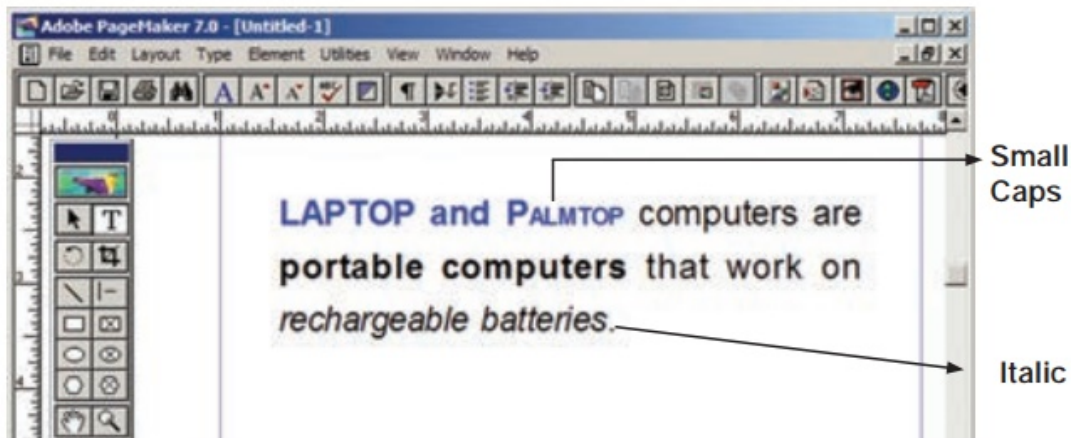
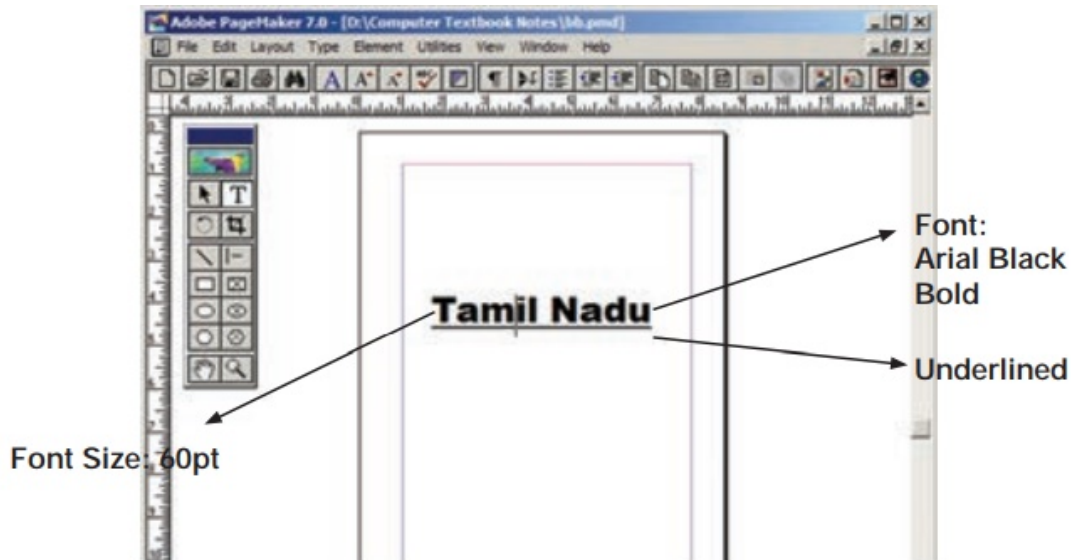
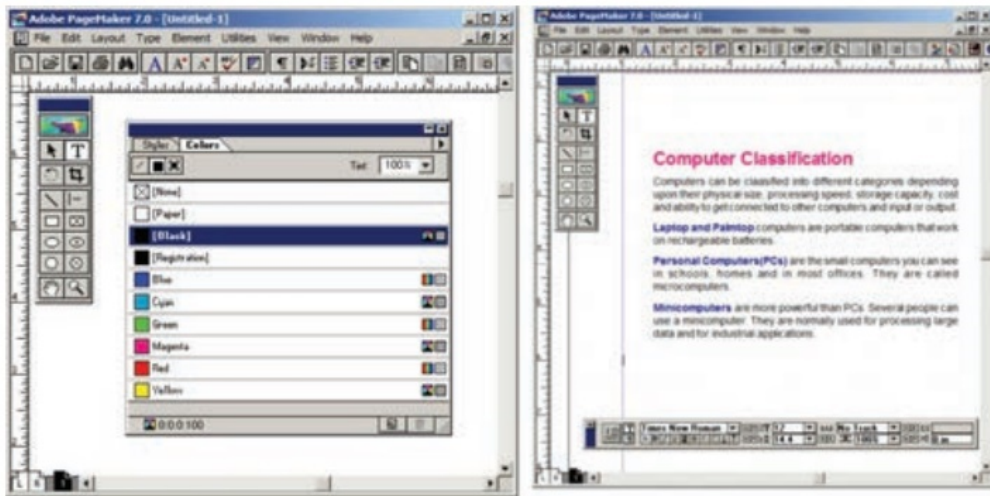
1. Select the text you want to colour.
2. Choose **Window > Show Colors** in Menu bar. The **Colors palette** appears.

Click the colour you want to apply to the selected text.

The characters change to the colour you selected in the palette.



The characters change to the colour you selected in the palette.



3.3. Tracking, Kerning and Leading

Tracking:

Tracking adjusts the relative space between letters and words so that they are spaced more closely together at a tight track setting or further apart at a loose track setting. Tracking can be helpful for darkening or lightening a page (type with tight tracking darkens the page while type with loose tracking lightens a page) or for changing the spacing of selected lines of very large or very small type, such as headlines and captions. Track settings can also be used to make text fit in a defined space on a page.

PageMaker offers several tracking options from *Very Loose* to *Very Tight*. You can adjust the track for an entire paragraph, a single line, or a few characters. Here is an example of the different types of tracking as opposed to normal text:

This is text with no tracking.

This is text with very tight tracking.

This is text with very loose tracking.

Applying Tracking: Menu Option

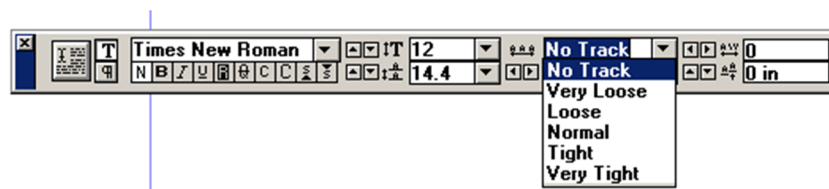
1. Select the text that you want to track
2. From the *Type* menu, select **Expert Tracking** » select the desired degree of tracking

Returning to the normal track:

1. Select the text that you want to track
1. From the *Type* menu, select **Expert Tracking** » **Normal**

Applying Tracking: Control Palette

1. Select the text that you want to track
2. On the *Control Palette*, from the *Tracking* pull-down list, select the desired choice

**Kerning**

Kerning refers to the spacing between pairs of characters. Most characters have been kerned already through automatic pair kerning for the most optimal

effect. For example, a typeface may have built-in pair kerning for the characters *T* and *o*, so that the *o* is tucked under the top of the *T*. However, since automatic pair kerning rarely covers every character pair combination, manual kerning may be necessary.

PageMaker allows you to kern text **automatically** or **manually** between two characters or, if necessary, over a range of text. Here is an example of what kerned characters look like as opposed to regular characters:

Characters without kerning
Characters with added space
~~Characters~~ with removed space

Setting Automatic Kerning

1. Select the text you want to kern
 NOTE: Kerning affects the space after a character. If you want to change only the kerning of a word, but not the width of space after the word, select all but the last character of the word.

2. From the *Type* menu, select **Paragraph...**

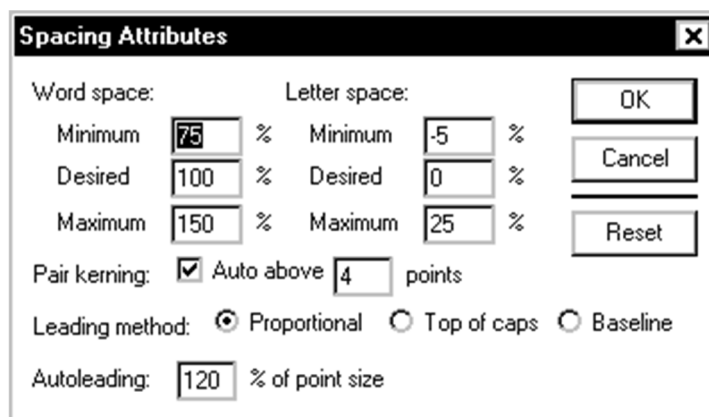
OR

Press [Ctrl] + [M]

The *Paragraph Specifications* dialog box appears.

3. From the *Paragraph Specifications* dialog box, click **SPACING...**

The *Spacing Attributes* dialog box appears.



4. For *Pair Kerning*, select **Auto Above** The selection should now be checked.

5. In the *Auto above* text box, type the font point size above which you want to apply auto-kerning Pair kerning will automatically apply to font sizes greater than this value.
6. To return to the *Paragraph Specifications* dialog box, click **OK**
7. To return to your document, click **OK**

Manual Kerning with the Control Palette

1. Place your insertion point between the two characters you want to kern

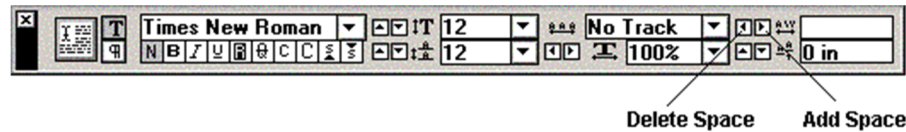
OR

Select the text you want to kern

NOTE: Kerning affects the space after a character. If you want to change the kerning of a word, but not the width of space after the word, select all but the last character of the word.

2. To add space between characters from the *Control Palette*, click **RIGHT NUDGE**

To delete space between characters from the *Control Palette*, click **LEFT NUDGE**



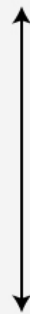
Leading

Leading is an essential design aspect that determines how text is spaced vertically in lines. For content that has multiple lines of readable text (like this blog), you'll want to make sure the distance from the bottom of the words above to the top of the words below has appropriate spacing to make them legible.

"The only way to keep your health is to eat what you don't want, drink what you don't like, and do what you'd rather not"
-Mark Twain



"The only way to keep your health is to eat what you don't want, drink what you don't like, and do what you'd rather not"
-Mark Twain



The leading is measured from the baseline of each line of text where the letters “sit.” Descenders, the parts of certain letters that are longer, such as a lowercase g, fall below the baseline. Ascenders are the opposite, letters with taller features, such as the letter h. They need to be considered as well when determining the leading distance.

3.4. Style sheets

A **style sheet** is a feature in desktop publishing programs that store and apply formatting to text. Style sheets are a form of separation of presentation and content: it creates a separate abstraction to keep the presentation isolated from the text data.

STYLES PALETTE: The Styles Palette is used to apply styles or to view or edit styles defined for the publication. To apply a style, just click a paragraph with the text tool and then click a style name in the palette. Choose Window and select Show Styles to display the Styles palette.

Applying Styles

Styles apply to entire PageMaker paragraphs. That’s a critical point. You can use a style to create a headline with bold type, but you can’t use a style to selectively format just a few words within the headline.

SAQ

1. Write a short note on kerning, tracking and leading?
2. Discuss some of the palettes used in PageMaker?

You can apply the style and override it to put a single word or phrase in bold or italic.

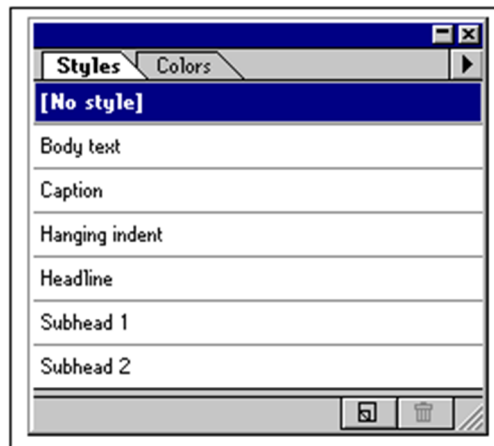
There are four methods of applying styles:

- Style palette
- Text mode of the
- Style submenu in the Type
- Keyboard shortcuts

In each case, you must use the Text tool and click an insertion point in the paragraph you want to format, or select as many consecutive paragraphs as you like. Be careful, though. Undo can’t undo style changes. The only way to undo a changed style is to use Revert or to apply a different style to it.

Styling with the Styles Palette

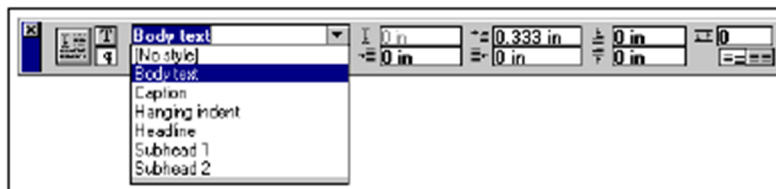
The Styles palette is the easiest way to apply PageMaker styles. When you open the Styles palette (press (Command-B) [Control-B] or select Show Styles from the Window menu), you see a list of available styles. You can add new ones, too. Select the paragraph to style, move the Text tool to the Styles palette, where it changes to a pointer, and click the style you want to apply.



The Style palette lists styles you can apply

Styling with the Control Palette

With the Control palette in Paragraph mode, as shown below you can select a style from the menu list at the left of the palette. You can also have the Control palette look up your style for you by typing the first few letters of its name. The list jumps to the style that most closely matches what you type, and as you keep typing, it keeps guessing at where you are headed (the same way you can look up a font in Character view). After the style has been selected, tab to the next field or press Return, and the style is assigned to whatever text you selected for formatting.



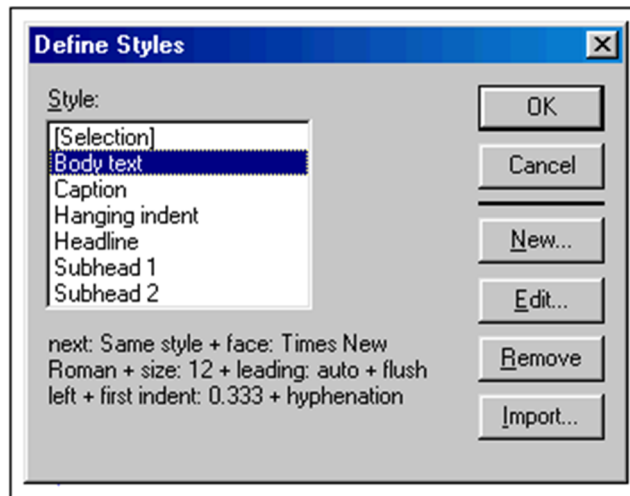
Choosing a style from the Control palette's pop-up menu

Styling with the Style Submenu

You may use the Style submenu, located in the Type menu. (Don't confuse it with the Type Style submenu.) Choose your style from the list.

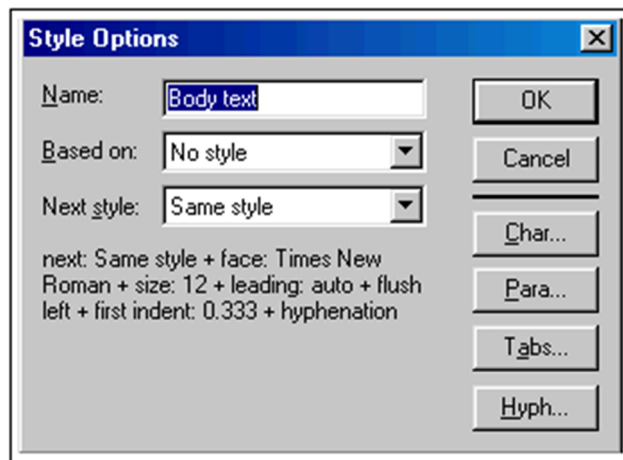
Defining or Redefining Styles

The real power of PageMaker styles comes from defining your own. show the Define Styles and Style Options (previously called Edit Styles) dialog boxes.



The Define Style dialog box.

Open the main Define Style. To edit an existing style, scroll through the list of styles in this dialog box and choose the style you want to edit, clicking Edit button to modify it.



The Style Options dialog box.

From the Define Styles dialog box, you can also create a completely new style. Click New to get the Style Options dialog box with no name entered into the Name field. Name the new style and change the default entries as needed to define its text and paragraph formatting.

PageMaker bases the initial entries in the New Style dialog box on an existing style if you happened to choose one before clicking on the New button. Or, if you click the Selection option at the head of the scrolling list, the new style is based on whatever text was selected prior to opening the Define Styles dialog

box. If no text was selected, the new style is based on the current mini-defaults for character and paragraph formatting. Click OK to adopt your finished style.

The Remove button does just what it sounds like-it removes a style. This option cannot be undone. If you remove a style by mistake and catch your error in time, you can click the Cancel button and back out of the situation. If you do a Save before removing a style and then realize you made a mistake and need to undo it, use the Revert command in the File menu.

Create Instant Styles with the Control Palette

To use the Control palette to create an instant style, format some text, and then highlight the text. Open the Control palette and tab to the style list section. Enter the name of your new style and press Return. Presto, instant new style. Note that if you duplicate an existing style name, PageMaker offers to assign the existing style to the highlighted text. This Control palette technique performs a two-step procedure in a single powerful move. When you use the Style menu command, you need to first define the new style and then use the Styles palette to apply the style. The Control palette style definition routine simultaneously defines the style and applies it to the selected text.

3.5. Bullets and Numbering

A bullet list is a list of words, phrases, or sentences set apart with a simple bullet or numbers at the start of each line. Bullet lists can help to set apart information or provide a list of steps to be taken to accomplish a task. Here's how to use the bullets and numbering plug-in in Adobe PageMaker 6.5 for Windows.

1. With the text tool, highlight the lines to which you want to add bullets or numbers or put your cursor at the start of the first line (paragraph).
2. Select Utilities | Plug-ins | Bullets and numbering... from the menu bar.
3. In the Bullets and numbering dialog box select the style of bullet you want to use from the choices given or use the Edit button to select a different font or bullet or size for the bullet.

4. If you want a numbered list instead of bullets, select the Numbers button. Choose a numbering style and specify the number range to use if you don't want to start with number 1.
5. If you highlight the text you want bulleted or numbered, choose Only selected paragraphs for the Range; otherwise, specify the number of paragraphs that you want bulleted.
6. Select Ok to add your selected bullet or number style.

Tips:

1. Be consistent in your use of bullets. Too many different styles in a publication or mixed bullets in one list are confusing.
2. Numbers are good for lists of tasks that are best done sequentially or to designate relative importance among items in the list.

3.6. Summary

- Tracking is the overall spacing between groups of letters. Leading is the vertical spacing between lines of type.
- Leading, on the other hand, refers to the vertical spacing between lines and is measured from the baseline of each line of text to the next
- Tracking adjusts the relative space between letters and words so that they are spaced more closely together at a tight track setting or further apart at a loose track setting.
- A style in page maker is simply a definition of the type, paragraph, tab, and hyphenation settings for a specific type of text in a document set for easy paragraph & layout settings
- A bullet list is a list of words, phrases, or sentences set apart with a simple bullet or numbers at the start of each line.

3.7. SAQ

2. **Discuss Kerning, Tracking and Leading?**
3. **Write short notes on Formatting text?**
4. **Write short notes on style palette?**
5. **Discuss how to insert bullets and numbers in PageMaker?**

UNIT - IV

4.0. Objective

4.1. Introduction

4.2. Working with text, paragraphs

4.3. Tabs and Indents

4.4. Graphics

4.5. Tables

4.6. Summary

4.7. SAQ

4.0. Objective

Students able to format the document by using tabs, indents graphics and can create tables for data representation.

4.1. Introduction

Paragraph formatting is about the options that affect the paragraph or group of paragraphs, like centering, justifying, indentation, vertical spacing, hyphenation, paragraph breaks, etc, most of the these options are in the paragraph specification dialog box, accessed by choosing paragraph from the TYPE menu. the keyboard short cut is ctrl+M, can also done through control palette also(for more refer unit – III, 3.2).

4.2. Work with text, Paragraph formatting

Paragraph formatting is a change in the format of text that affects an entire paragraph or is different from other paragraphs in a document. Paragraphs in a word processing document or on a web page can have paragraph formatting applied to them, including alignment, font type, font size, highlighting, and indentation.

Examples of paragraph formatting

Change font size

This paragraph uses a small font size.

This paragraph uses a large font size.

Change font type

This paragraph uses the "Arial" font type.

This paragraph uses the "Comic Sans MS" font type.

Change font color

This paragraph uses the blue font color.

This paragraph uses the red font color.

Change bold and italics formatting

This paragraph uses bold text formatting.

This paragraph uses italics text formatting.

Change color highlighting

This paragraph has no color highlighting.

This paragraph has yellow highlighting.

Change paragraph indentation

This paragraph has no indentation.

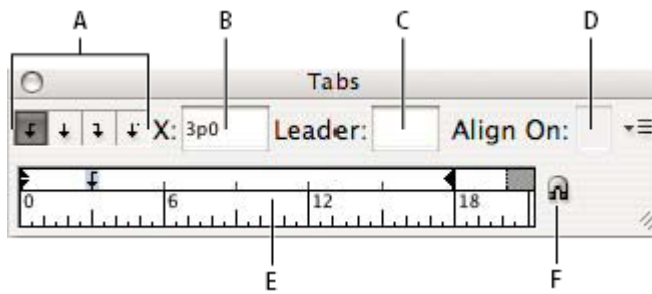
This paragraph is indented by one tab character.

4.3. Tabs and Indents

Tabs position text at specific horizontal locations in a frame. The default tab settings depend on the Horizontal ruler units setting in the Units & Increments preferences dialog box.


Tabs apply to an entire paragraph. The first tab you set deletes all default tab stops to its left. Subsequent tabs delete all default tabs between the tabs you set. You can set left, center, right, and decimal or special-character tabs.

You set tabs using the Tabs dialog box.



Tabs dialog box

A. Tab alignment buttons **B.** Tab position **C.** Tab Leader box **D.** Align On box **E.** Tab ruler **F.** Snap above frame

When you do this in a vertical text frame, the Tabs dialog box also becomes vertical. When the Tabs dialog box direction is not consistent with the text frame direction, click on the magnet icon  to snap the rulers to the current text frame.



Vertical tabs


Open the Tabs dialog box

1. Using the Type tool, click in the text frame.
2. Choose Type > Tabs.

If the top of the frame is visible, the Tabs dialog box snaps to the current text frame and matches its width to the current column.


When the top of a horizontal frame is displayed, the Tabs dialog box will snap to the top of the current text frame, and the width will change to conform to the width of the current column. When there is a text insertion point in a vertical frame, the Tabs dialog box will snap to the right side of the text frame, and the length displayed will conform to the length of the current column.

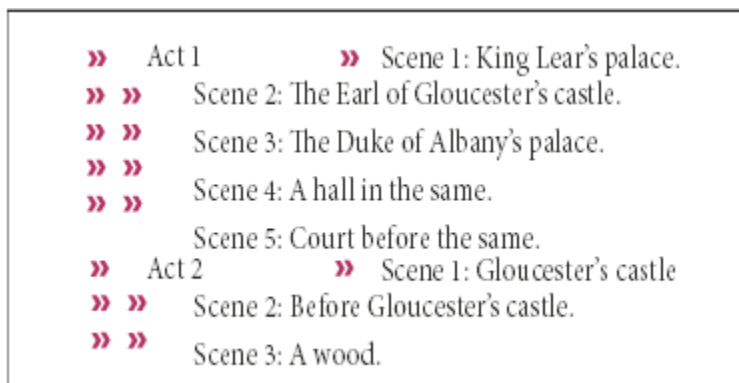
Align the Tabs dialog box ruler with your text

1. In Layout View, scroll through your document to display the top of the content.
2. Scroll through your document to display the top of the text frame.
3. Click the magnet icon  on the Tabs dialog box. The Tabs dialog box snaps to the top of the column that includes the selection or the insertion point.

Set tabs

You can set left, center, right, and decimal or special-character tabs. When you use the special-character tab, you can set a tab to align to any character you choose, such as a colon or a dollar sign.

1. To see the effect of changing tab settings, choose View > Layout View.
2. Using the Type tool , click an insertion point in the paragraph.
3. Press the Tab key. Add tabs in the paragraphs where you want to add horizontal space. (You can also add tabs after you create your tab settings.)



Using tabs to align text

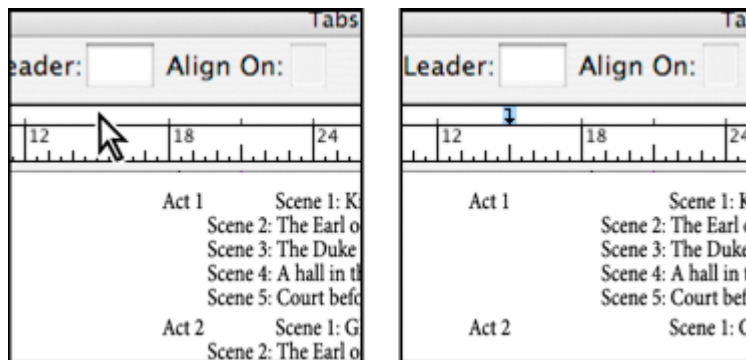
4. Choose Type > Tabs to display the Tabs dialog box.

5. To specify which paragraphs will be affected, select a paragraph or a group of paragraphs.

Note:

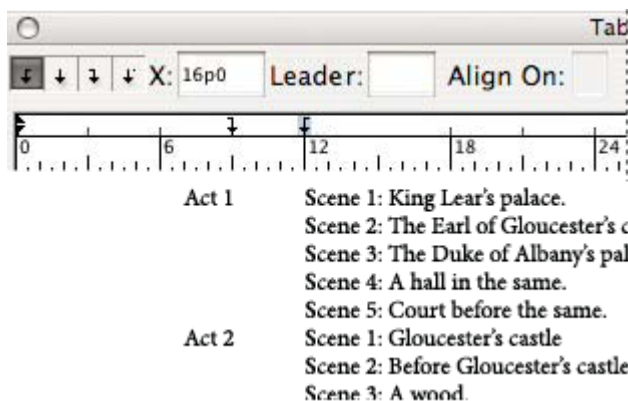
In Galley view and Story view, adding a tab at the beginning of the paragraph indents the text the same amount, regardless of the tab position. Layout view shows the actual distance of the tab.

6. For the first tab, click a tab-alignment button (left, right, center, or decimal) in the Tabs dialog box to specify how text will align to the tab's position.
7. Do one of the following:
 - o Click a location on the tab ruler to position a new tab.



Adding a new tab setting

- o Type a position in the X box and press Enter or Return. If the X value is selected, press the up or down arrow key to increase or decrease the tab value by 1 point, respectively.
8. For subsequent tabs with different alignments, repeat steps 3 and 4.



The first tab setting is right-aligned; the second tab setting is left-aligned.

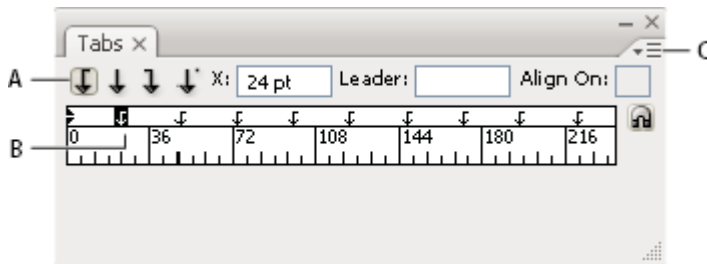
Note:

To insert a tab character in a table, choose Type > Insert Special Character > Other > Tab.

Repeat tabs

The Repeat Tab command creates multiple tabs based on the distance between the tab and the left indent or the previous tab stop.

1. Click an insertion point in the paragraph.
2. In the Tabs panel, select a tab stop on the ruler.
3. Choose Repeat Tab from the panel menu.



Repeated tabs

A. Tab-alignment buttons **B.** Tab stop on the ruler **C.** Panel menu

Move, delete, and edit tab settings

Use the Tabs dialog box to move, delete, and edit tab settings.

Move a tab setting

1. Using the Type tool **T**, click an insertion point in the paragraph.
2. In the Tabs dialog box, select a tab on the tab ruler.
3. Do one of the following:
 - Type a new location for X and press Enter or Return.
 - Drag the tab to a new location.

Delete a tab setting

1. Click an insertion point in the paragraph.
2. Do one of the following:
 - Drag the tab off the tab ruler.
 - Select the tab, and choose Delete Tab from the panel menu.

- To return to the default tab stops, choose Clear All from the panel menu.

Change a tab from one alignment to another

1. In the Tabs dialog box, select a tab on the tab ruler.
2. Click a tab-alignment button.

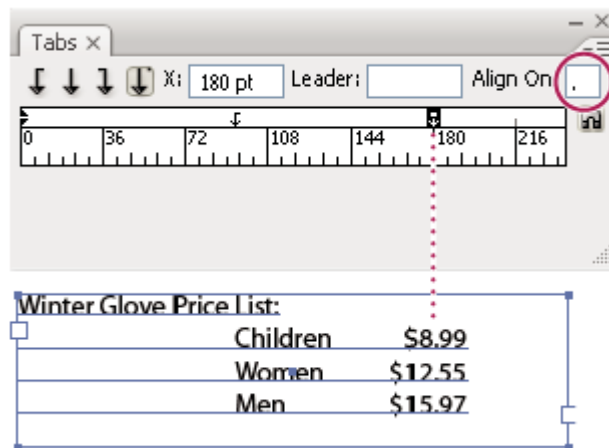
Note:

You can also hold down Alt (Windows) or Option (Mac OS) while clicking the tab setting to cycle through the four alignment options.

Specify characters for decimal tabs

You use decimal tabs to align text with a character you specify, such as a period or a dollar sign.

1. In the Tabs panel, create or select a decimal tab ↓ on the tab ruler.
2. In the Align On box, type the character to which you want to align. You can type or paste any character. Make sure that the paragraphs you're aligning contain that character.



Text aligned using a decimal tab

Add tab leaders

A *tab leader* is a repeated pattern of characters, such as a series of dots or dashes, between a tab and the following text.

1. In the Tabs panel, select a tab stop on the ruler.
2. Type a pattern of as many as eight characters in the Leader box, and then press Enter or Return. The characters you entered repeat across the width of the tab.

3. To change the font or other formatting of the tab leader, select the tab character in the text frame, and use the Character panel or Type menu to apply formatting.
-

Insert right indent tabs

In one step, you can add a right-aligned tab at the right indent, making it easier to prepare tabular text that spans an entire column. Right indent tabs are slightly different from regular tabs. A right indent tab:

- Aligns all subsequent text to the right edge of the text frame. If the same paragraph includes any tabs after the right indent tab, those tabs and their text are pushed to the next line.
 - Is a special character located in the text, not in the Tabs dialog box. You add a right indent tab using a context menu, not the Tabs dialog box. As a result, a right indent tab can't be part of a paragraph style.
 - Is different from the Right Indent value in the Paragraph panel. The Right Indent value keeps the entire right edge of the paragraph away from the right edge of the text frame.
 - Can be used with a tab leader. Right indent tabs use the tab leader of the first tab stop past the right margin, or, if there isn't one, the last tab stop before the right margin.
 1. Using the Type tool **T**, click on the line where you want to add the right indent tab.
 2. Choose Type > Insert Special Character > Other > Right Indent Tab.
-

Indents

Indents move text inward from the right and left edges of the frame. In general, use first-line indents, not spaces or tabs, to indent the first line of a paragraph.

A first-line indent is positioned relative to the left-margin indent. For example, if a paragraph's left edge is indented one pica, setting the first-line indent to one pica indents the first line of the paragraph two picas from the left edge of the frame or inset.


You can set indents using the Tabs dialog box, the Paragraph panel, or the Control panel. You can also set indents when you create bulleted or numbered lists.

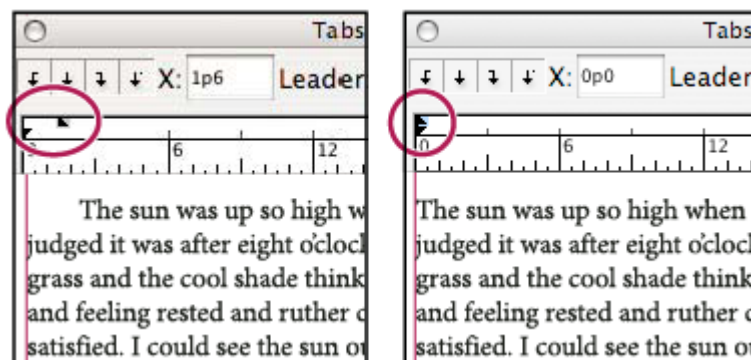
When setting CJK characters, you can use the mojikumi setting to specify the indent for the first line. However, for text in which the first line indent was specified in the Paragraph panel, if you specify indents in mojikumi settings, you can make the text indent the sum value of both indents.

SAQ

1. Discuss paragraph formatting?
2. Discuss how to implement indents and tabs in PageMaker?
3. Discuss how to use columns in PageMaker?

Set an indent using the Tabs dialog box

1. Using the Type tool **T**, click in the paragraph you want to indent.
2. Choose Type > Tabs to display the Tabs dialog box.
3. Do one of the following to the indent markers  in the Tabs dialog box:
 - Drag the top marker to indent the first line of text. Drag the bottom marker to move both markers and indent the entire paragraph.





First-line indent (left) and no indent (right)

- Select the top marker and type a value for X to indent the first line of text. Select the bottom marker and type a value for X to move both markers and indent the entire paragraph.

For more information on using the Tabs dialog box, see [Tabs dialog box overview](#).

Set indents using the Paragraph panel or the Control panel

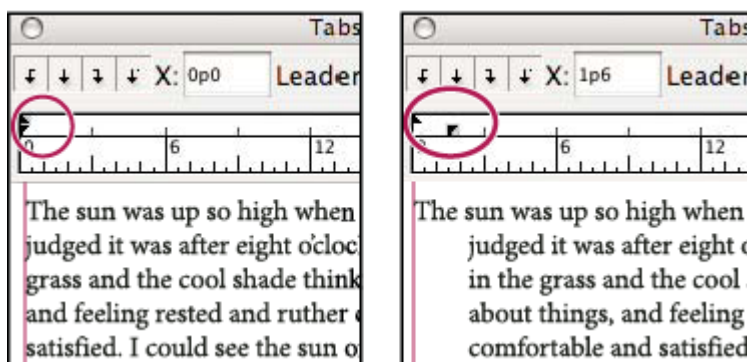
1. Using the Type tool **T**, click in the paragraph you want to indent.
2. Adjust the appropriate indent values in the Paragraph panel or Control panel. For example, do the following:
 - To indent the entire paragraph one pica, type a value (such as **1p**) in the Left Indent box .
 - To indent only the first line of a paragraph one pica, type a value (such as **1p**) in the First Line Left Indent box .
 - To create a hanging indent of one pica, type a positive value (such as **1p**) in the Left Indent box and type a negative value (such as **-1p**) in the First Line Left Indent box. See [Set indents](#).

Reset indents

1. Click in the paragraph in which you want to reset indents to the zero mark.
2. Choose Reset Indents from the Tabs dialog box menu.

Create a hanging indent


In a hanging indent, all the lines in a paragraph are indented except for the first line. Hanging indents are especially useful when you want to add inline graphics at the beginning of the paragraph.



No indent (left) and hanging indent (right)

1. Using the Type tool **T**, click in the paragraph you want to indent.
2. In the Tabs dialog box or the Control panel, specify a left indent value greater than zero.

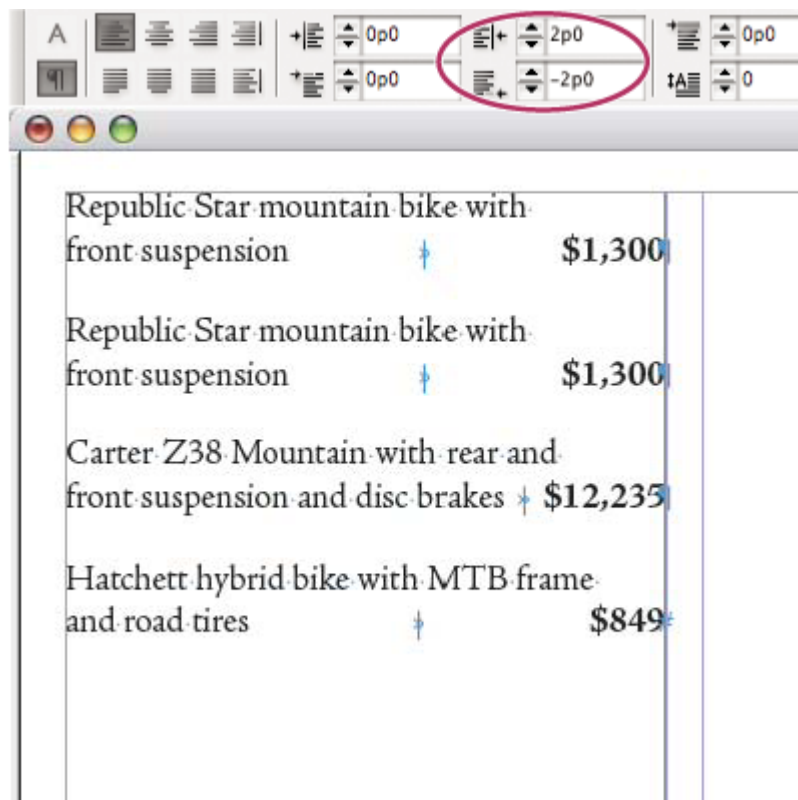
3. To specify a negative first-line left indent value, do one of the following:

- In the Control panel, type a negative value for the first-line left indent .
- In the Tabs dialog box, drag the top marker to the left, or select the marker and type a negative value for X.

In most cases, you'll specify the negative equivalent of the value you entered in step 2; for instance, if you specified a left indent of 2 picas, your first-line left indent will typically be -2 picas.

Right-indent the last line of a paragraph

You can use the Last Line Right Indent option to add a hanging indent on the right side of the last line in a paragraph. This option is especially useful for right-aligning prices in a sales catalog.



Last line right indent

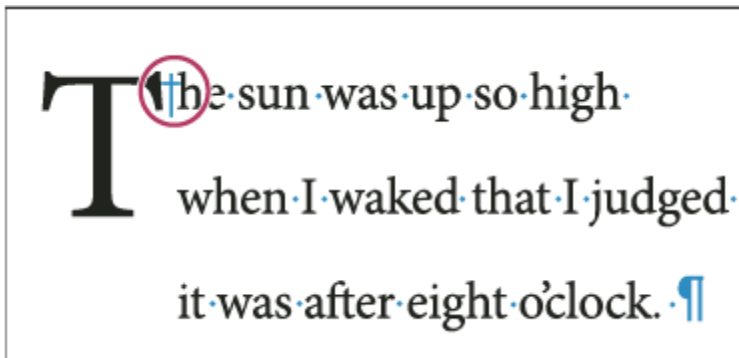
1. Type your paragraphs. In the last line of each paragraph, place the insertion point before the text to be indented, and choose Type > Insert Special Character > Other > Right Indent Tab.
2. Select the paragraphs.

3. To create a right indent for paragraphs, specify a value (such as **2p**) in the Right Indent field of the Paragraph panel or Control panel.
4. To offset the right indent value for the text that follows the tab, type a negative value (such as **-2p**) in the Last Line Right Indent field of the Paragraph panel or Control panel.

Use Indent To Here

You can use the Indent To Here special character to indent lines in a paragraph independently of a paragraph's left indent value. The Indent To Here special character is different from the paragraph's left indent in the following ways:

- Indent To Here is part of the text flow, as if it were a visible character. If text reflows, the indent moves with it.
- Indent To Here affects all lines after the line where you've added its special characters, so you can indent just some of the lines in a paragraph.
- When you choose Type > Show Hidden Characters, the Indent To Here character † is visible.



Indent To Here special character

1. Using the Type tool **T**, click the insertion point where you would like to indent.
2. Choose Type > Insert Special Character > Other > Indent To Here.


4.4. Graphics

Working with Independent Graphics

Independent graphics are simply placed on the page. Regardless of what you do around the graphic, the placement will not change unless you move it.

Placing Independent Graphics

How you place a graphic is initially determined by your choice of either the *Pointer* tool or the *Text* tool. Independent graphics are placed using the *Pointer* tool. If you have the *Text* tool selected, you can still place the graphic as an independent graphic by making the appropriate selection in the *Place* dialog box

1. From the *Toolbox*, select the ***Pointer*** tool 
2. From the *File* menu, select ***Place...***
The *Place* dialog box appears.
3. Select the image file you want to place
4. In the *Place* section of the dialog box, verify that the graphic will be placed ***as independent graphic***
If that option is not selected, select it now.
5. Windows: Click **OPEN**
Macintosh: Click **OK**

Your cursor will change to a graphics icon 

6. Use the mouse to position the icon's top left edge where the top left corner of the graphic should appear in the document
7. Click to place the graphic
8. Select your *Text Wrap* option **Using Text Wrap**.
9. Click **OK**

Inserting Clip Art from the Microsoft Clip Gallery

Images from the *Clip Gallery* are placed as independent graphics regardless of whether you use the *Pointer* tool or the *Text* tool when inserting them.

NOTE: This feature may not be available on all computers.

1. From the *Edit* menu, select ***Insert Object...***
The *Insert Object* dialog box opens.
Windows: ***Create New*** should be selected.
Macintosh: ***New*** should be selected.
2. From the *Object Type* list, select ***Microsoft Clip Gallery***
3. Click **OK**
The *Microsoft Clip Gallery* opens.
4. Select an image

5. Click **INSERT**

The image appears on your page. You may **resize, move, crop, layer** or **wrap text** around it.

Sizing Independent Graphics

Once you have placed a graphic in your PageMaker document, you may discover that it is not the right size or it contains extra information that is not relevant to your document. With PageMaker's ability to resize and crop graphics, you can make adjustments to the graphic so it better meets your needs. If you need to do additional editing, you probably need to use a graphics program such as Adobe Illustrator.

The following instructions cover how to reduce, enlarge, stretch, or crop part of a graphic

Stretching or Shrinking a Graphic

1. Using the *Pointer* tool, select the graphic you want to alter
2. To change your image proportionately, click and drag one of the corner selection handles

OR


To change your image in height or width, click and drag one of the top, bottom, or side selection handles

HINT: To modify the object incrementally by .1 inch, hold the [**Shift**] key while dragging.

3. Release the mouse button

Cropping Independent Graphics

Placing graphics often creates unnecessary white space along the sides of the image. You may also find that you only need a portion of a graphic. The *Cropping* tool functions somewhat like a scissors, cutting off the parts of the graphic you do not need or want.

1. From the *Toolbox*, select the **Cropping** tool 
2. Select the image you want to crop
3. To crop part of the image, click a handle and drag it inward
You should be able to see the handle through the center of the *Cropping* tool when you click on a handle for cropping.

4. cropping.



5. Release the mouse when the graphic is cropped correctly
HINT: If you decide later not to change the cropping, you can select the graphic with the *Cropping* tool and enlarge the frame to show more of the graphic or the entire graphic.

Panning Graphics

Panning a graphic allows you to adjust the portion of the image that is displayed after it has been cropped.

1. From the *Toolbox*, select the ***Cropping*** tool
2. Select the image you want to pan
3. Position the *Cropping* tool in the center of the graphic
4. Click and hold the mouse button
A small *Hand* icon will appear in the graphic.




5. Hold the mouse button down and move the *Hand* icon within the graphic until the image is where you want it
6. Release the mouse button

Moving Graphics

If your graphic is not placed in quite the right spot on the page, it can be moved.

To move an independent graphic:

1. From the *Toolbox*, select the ***Pointer*** tool
2. Select the graphic you want to move
3. Click and hold anywhere on the graphic except on a handle
WARNING: If a two-sided arrow appears you may have grabbed a handle and accidentally resized the graphic. To undo any resizing, release the mouse button and from the *Edit* menu, select ***Undo Stretch***.
4. Still holding the mouse button, drag the element to its new location and release the button

NOTE: If you have selected an in-line graphic, you will not be able to move it more than a few pixels up or down within the text. If you click on an in-line graphic and try to move it, you will see this arrow 

Cutting and Pasting Independent Graphics

To cut and paste or copy and paste a line, a graphic, or a block of text:

1. From the *Toolbox*, select the *Pointer* tool
2. Select the graphic elements that you want to *Copy* or *Cut*
3. From the *Edit* menu, select *Copy* or *Cut*
4. To paste the item(s), from the *Edit* menu, select *Paste*

WARNING: The computer will retain only one cut or copy at a time. If you select *Cut* and then highlight another item or items and select *Cut* or *Copy*, the first item or group of items will be replaced in memory by the second group and can no longer be pasted.

Layering of Graphics and Text

As you add more graphic elements and text to your document, the order that they appear on the page can make a difference on how the page looks. For example, if you have a shaded box and text in the same area of the page, the text has to be on top of the box in order for you to be able to read the text. So you do not have to create the graphics and text in the order that you want them to appear, PageMaker allows you to order the layers by sending them either to the front or to the back. To do this:

1. With the *Pointer* tool, select the desired graphic or text block
2. From the *Element* menu, select *Arrange*
3. From the *Arrange* submenu, select *Send to Back* or *Bring to Front*

Selecting Text or Graphics behind Another Layer

To select text or graphics which are not on top

1. Press [CTRL] and click the object

Using Text Wrap

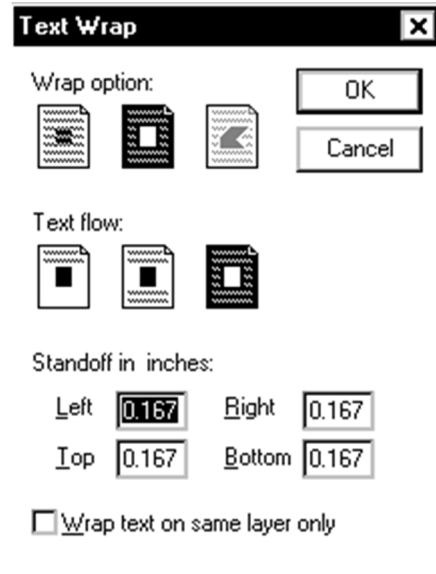
If a graphic or a figure is to be text to wrap around it in some into PageMaker, or around a tools.



placed on the same page as text, you may wish the way. Text can be wrapped around a graphic placed drawing created in PageMaker with the drawing

To use text wrap


1. Select the graphic or drawing with the *Pointer* tool
2. From the *Element* menu select **Text Wrap...** The *Text Wrap* dialog box appears.



3. Select the appropriate *Wrap* option:
 - *no wrap*
 - *wrap around square*
 - *wrap around non-standard shape*
4. Select the appropriate *Text Flow* option:
 - *above only*
 - *above and below*
 - *all around*
5. Type the standoff (the distance from surrounding text) in inches for each side of the graphic
6. When settings and measurements are correct, click **OK**

To remove text wrapping

1. Select the graphic or drawing with the *Pointer* tool
2. From the *Element* menu select **Text Wrap...** The *Text Wrap* dialog box appears on the screen.

3. Select *no wrap* 
4. Click **OK**

4.5. Tables

Tables in PageMaker are used to display tabulated data in your publication. They are used to display numerical data which are best displayed on a table and display text using less text. Table editor is effective for creating

- Schedules
- Worksheets
- Financial tables
- List and forms

It's a good idea to include a table of contents in any document longer than four pages, to help readers easily locate the information they need. After you specify TOC(Table of Contents) items, you'll then need to generate the TOC.

Generate the Table of Contents

Step 1

Go to the Utilities menu and select Create TOC, then enter the title of your Table of Contents.

Step 2

Select the checkbox and radio button items you want and make sure the Between Entry and Page Number box contains this info: ^t. Click OK. The upward-pointing arrow and the letter "t" ensure that PageMaker places leader dots between the TOC item and the page number.

Step 3

Position the cursor in the upper-left corner of the page where you want the table of contents and click. Your TOC will be placed there.

Tag Items for the Table of Contents

Step 1

Click to place the cursor at the beginning or anywhere within the line of text you want to include in the table of contents.

Step 2

Go to the Type menu and select Paragraph.

Step 3

Select the Include in Table of Contents checkbox and click OK.

Step 4

Repeat steps 1 to 3 for every entry you want to include in this document's TOC.

4.6. Summary

- Formatting makes the document readable, easy and comprehensible to the person reading it.
- To activate editing mode, double-click the text object with the Selection tool, or click it with the Text tool. Alternatively, right-click the text, and select Edit from the context menu. Editing mode is indicated by a purple highlighted box with a ruler at the top.
- An indent sets the distance between the left and the right margins. It's also used in bullets and numbering to ensure that the text lines up properly.
- Tabs come into play when you press the Tab key on your keyboard.
- It moves the cursor one-half inch by default, much like a shortcut for several spaces.
- Tables in PageMaker are used to display tabulated data in your publication. They are used to display numerical data which are best displayed on a table and display text using less text.
- In PageMaker the text of the document can be typed inside a text block. So, you must use the Text tool to create those text blocks. After creating a Text block, you can type the text directly into the text block. As the characters are typed, the flashing vertical bar called the insertion point, moves to the right.

4.7. SAQ

1. Discuss how to provide indents in a document using PageMaker?
2. Explain how to insert graphics in PageMaker?
3. Write short notes on paragraph formatting in PageMaker?
4. Write a short note on Text wrapping?
