

# **KASNEB**

## **DICT – LEVEL 3**

### **STUDY NOTES**

#### **Computer Applications II – Practical**

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# TOPIC 1

## SPREADSHEET SOFTWARE

A spreadsheet is used to carry out everything from simple addition to complex financial and statistical analyses. Spreadsheet programs can also help you create charts and graphs based on the data you've entered.

### **Types/Brand Names of Spreadsheet Software**

- Microsoft Excel
- Microsoft Works Spreadsheet
- Lotus 1-2-3

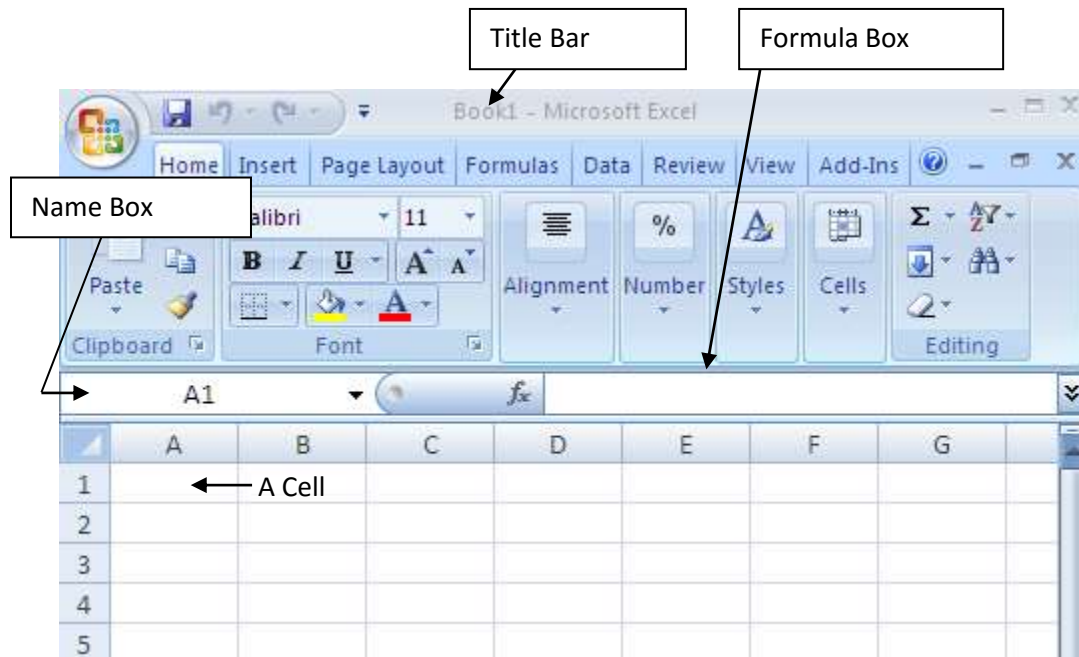
### **BASIC MS EXCEL SKILLS**

#### **Starting Up Microsoft Excel**

1. Click on START, choose PROGRAMS and click on Microsoft Excel
2. You will see a white grid in front of you with rows of menus and icons at the top of the screen.

#### **The Key Components of a Spreadsheet**

1. *Title Bar*: The bar that displays the name of the spreadsheet you currently have open.
2. *Name Box*: The box that displays the address of the cell that you are presently on.
3. *Formula Box*: The bar where the contents of the cell are displayed.
4. *Worksheet Tabs*: These tabs allow you to switch from one worksheet to another. The standard spreadsheet contains three worksheets.



**Note: Terms**

**Cell** – a single worksheet division

**Header** – identities/addresses to column, rows and cells

- Column[A,B,...], Rows[1,2,...] and Cell [A1]
- Cells – headers are in terms of cell position within a column and a row [A1 is a cell within column A and row 1 and A5 is a cell within column A and row 5]

**Reference** – the act of accessing/using cell addresses especially in formulae and functions

Types of references

- a) Single cell – addressing a single cell [i.e. A1]
- b) Range of cell – addressing a group of cells [i.e. A1:A5- vertical,A1:F1 - horizontal]

Ways of referencing

- a) Relative – in a formulae, reference to cells(s) are based on their position relative to the cell that contain the formulae
- b) Absolute - the cell referred to is the same no matter which cell refers to it

**Functions and formulae**

Function – readymade/ predefined mathematical procedures, built into the program library to perform a series of operations on a specified range of values (i.e. average, sum, if etc. –

Average(A1:A5))

Formulae – user defined formulae (i.e. =A1+A2+A3)

### Entering Data into a Spreadsheet

1. To enter data into a cell, simply click into the cell and type.
2. **ACTIVITY:**
  - a. Start in cell A1, and type “Day of the Week”. Press Enter, or click your mouse into cell A2 and type “Monday”. Continue down Column A until you’ve typed Monday through Sunday.
  - b. Click on cell B1 and type “Customers”. Proceed to cells B2-B8 begin typing in the numbers: 20, 10, 30, 50, 60, 100, and 70.

## EXCEL FORMULA AND FUNCTIONS

### Entering a Formula into a Spreadsheet

1. *What is a formula?* It is a command that instructs Excel to carry out a calculation. Addition,

# TOPIC 2

## DATABASE SOFTWARE

A **database** is an organized collection of data. It is the collection of tables, queries, reports, views, and other objects. The data are typically organized to model aspects of reality in a way that supports processes requiring information, such as modelling the availability of rooms in hotels in a way that supports finding a hotel with vacancies.

A **database management system (DBMS)** is a computer software application that interacts with the user, other applications, and the database itself to capture and analyze data. A general-purpose DBMS is designed to allow the definition, creation, querying, update, and administration of databases. Well-known DBMSs include MySQL, Oracle and MS Access

## Features of Microsoft Access

### Introduction to Microsoft Access

Ms Access is a database management tool that enables one to have good command of data collected. The programme enables one to retrieve, sort, summarize and report results speedily and effectively. It can combine data from various files through creating relationships, and can make data entry more efficient and accurate.

Microsoft Access (MS Access) enables one to manage all important information from a single database file. Within the file, one can use:

- Tables to store your data.
- Queries to find and retrieve specific data of interest.
- Forms to view, add, and update data in tables.
- Reports to analyze or print data in a specific layout.
- Data access pages to view or update, the data.

In MS Access, data is stored once in one table, but can be viewed from multiple locations.

When the data is updated in a Table, Query or Form, it is automatically updated everywhere it appears

**Microsoft Access** is a relational database management system for windows. Using this package, following tasks can be performed.

- Organize data into manageable related units Enter, modify and locate data
- Extract subsets of data based on specific criteria Create custom forms and reports
- Automate common database tasks Graph database relationships
- Add clipart to forms and reports
- Create macros for automating various functions
- Create database applications, consisting of modules linked through menus, dialog boxes, and command buttons.
- In Access, the term Database refers to a single file that contains a collection of information. Each Access Database consists of tables, queries ,forms reports, macros and modules

## Database Concepts

### **Field Names**

These should be meaningful, without spaces or punctuation, such as SNAME (surname), FNAME (first name), DOB (date of birth), ADDRESS1 (first line of address), TOWN, PCODE, PHONE etc. You cannot have two fields with the same name.

### **Field Types**

- Text for text and whole numbers that aren't going to be used in calculations(e.g., age, phone number)
- Date/Time for dates and time
- Numbers for decimals and numbers that are going to be used in calculations, e.g. sales figures
- Currency for money
- Yes/No for true/false logical values, e.g. a "married" field, field could be logical.

### **Field length**

This has to be fixed, so you need to plan your database structure beforehand (although you can alter the length later).

### **Required Fields**

This box is for when you want to force the user to enter data in a field

### Primary keys

These are used to sort the records to allow fast access. Access encourages you choose one field as the primary key field, and then sorts the records on this field. However, only one record with the same value is allowed in the primary key field, for example if you choose surname for the primary key, you can only have one Smith, Jones etc. For this reason, you should always choose a numeric or a counter field for the primary key: do not use surname as the primary key field.

## **TOPIC 3**

### **USING A DESKTOP PUBLISHING SOFTWARE**

**Microsoft Publisher** is an entry-level **desktop publishing** application from Microsoft, differing from Microsoft Word in that the emphasis is placed on page layout and design rather than text composition and proofing

Publisher is included in higher-end editions of Microsoft Office, reflecting Microsoft's emphasis on the application as an easy-to-use and less expensive alternative to the "heavyweights" with a focus on the small business market where firms do not have dedicated design professionals available to make marketing materials and other documents. However, it has a relatively small share of the desktop publishing market, which is dominated by Adobe Applications.

In Microsoft Office 2007, while most of Microsoft Office apps adopted ribbons in their user interface, Publisher retained its toolbars and did not adopt ribbons until the next version

## **Publisher Basics and Features**

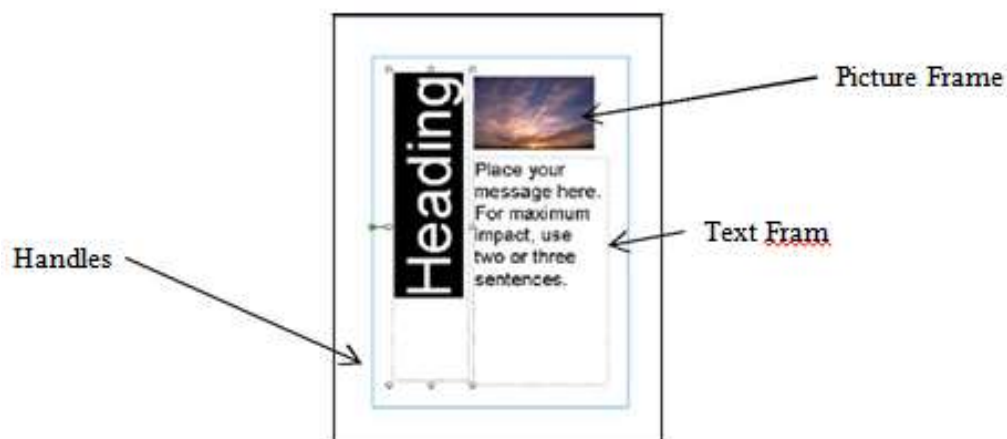
Microsoft Publisher 2007 is a desktop publishing program that can be used to create a variety of publications. Using Publisher, you can easily create business cards, greeting cards, calendars, newsletters and much, much more.

Unlike the other programs in Microsoft Office 2007, Microsoft Publisher 2007 uses the Microsoft Office Toolbar and a Menu system in place of the Microsoft Office Ribbon.

### **Some Useful Definitions:**

**Frame** – Most publications are divided into several different areas called frames. A frame can contain a variety of objects such as graphics, tables, or text boxes. Frames can be resized, moved and manipulated to suit your needs.

**Handles** – When you click on a frame, small circles appear around the edge of the frame. These are called handles. You can click and drag on the handles to resize your frame.



**Template** - A Template is a tool used in Publisher to help you easily create basic



publications. The template has a set of pre-chosen design styles that you can use as it is or customize as you see fit.

## Opening Publisher

To Open Publisher either:

Double click on the Microsoft Publisher Icon on your desktop, OR

-OR

Click on Start in the lower left hand corner of your desktop, move up to Programs, and then click on Microsoft Publisher

## Creating New Publications with Publisher.

When you first open Publisher, Publisher offers you a number of different publication types to start with.

Click on one of the publication types in the main window or in the list on the left side of the main window to view a list of templates that will walk you through the process of making basic design choices for your publication. These choices include color schemes, font styles, and more.


## Examples

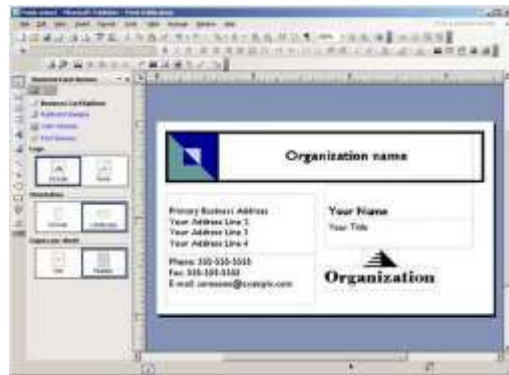
To Create a Calendar:

1. **Open Microsoft Publisher** by double clicking the icon on the desktop or finding it under the start menu.
2. Click on **Calendars** from the main window or the list on the left. A selection of pre-designed templates appears for you to choose from.
3. Click on one of the pre-designed templates that you like. It will appear at the top of the area on the right side of the page.
4. You can either stick with the default design choices that are part of the template, or you can customize them by clicking the downward pointing arrow to the right of a design section and choosing any of the options provided by clicking on it.
5. Click on the **Set Calendar Dates** button and choose the period of time that you would like your calendar to cover.
6. Click on **Create** at the bottom to create your calendar.

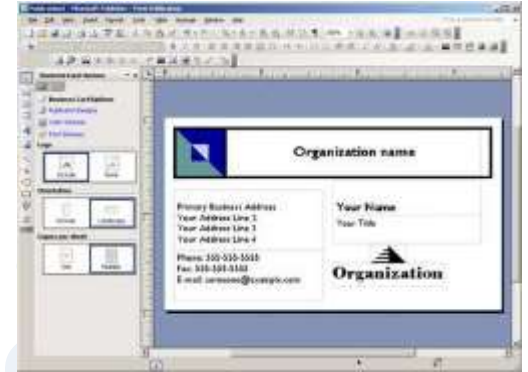
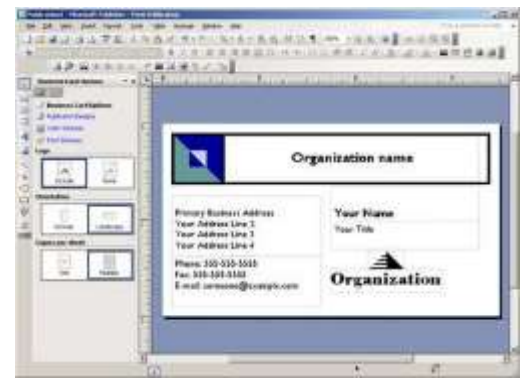
Now that you have made your basic calendar selections, it is time to further customize the publication.

## Creating a Business Card

1. Open **Microsoft Publisher** by double clicking the icon on the desktop or finding it under the start menu.
2. Click on **Publications for Print** then **Business Cards**, and finally **Accent Box Business Card**.
3. In the personal information form that opens, enter your own contact information and click on **OK**. (If you accidentally close your personal information and you want to edit it further, click on the **Edit** Menu and **Personal Information** to retrieve the form.)
4. In the task pane on the left side of the window, you are given different options you can adjust. As you click on the different steps at the top of the task pane, the options change on the lower part of the task pane.
5. Click on **Business Card Options**.
  - a. Choose to **Include** a logo.
  - b. Choose the traditional **Landscape** orientation
  - c. Choose to have **Multiple** copies per sheet
6. Click on **Publication Designs**.
  - a. Leave the selected **Accent Box**.
  - b. Click on **Color Schemes** and select the desired color scheme.
7. Click on **Font Schemes** and select the desired font scheme.



Now that you have completed the Business Card Wizard, you can customize the business card. Change the format or insert additional clip art, if you wish.



## Creating a Personalized Greeting Card

1. **Open Publisher** by double clicking the icon on the desktop or finding it under the start menu.
2. Click on **Publications for Print** ➤ **Greeting Cards** ➤ **Birthday** ➤ **Birthday Card 72**
3. Click on **Greeting Card Options**

- a. Select **Greetings Bar**.
- b. Select **Full Verse**
- c. Click on **Select a suggested verse**. A dialog box will open click on a verse on the left side and on the right side it will show you the front message and the inside message. Select the verse you would like to use and click on **OK**.



i.

- Click on **Page Options**  
Choose the **Quarter page side fold** option.

- Click on **Card Gallery**  
Leave **Birthday 72** selected.
- Click on **Color Schemes**  
Select the desired color scheme.



Select the desired font scheme.

Now that you have completed the Greeting Card Wizard, you can customize the greeting card.

At the bottom of the screen are sheets with numbers on them (1, 2, 3, 4). Click on 1 to see the front of the card. Click on 2 or 3 to see the inside of the card. Click on 4 to see the back of the card.

## Customizing a Publication (Working with text and objects)

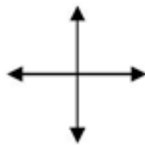
### Working with Frames

Each publication is composed of different frames, such as text frames, picture frames, table frames, and shape/object frames. Click on different areas of the calendar to identify the different frames. Handles, little circles on the corners and sides of the frame will appear. The handles help show which frame you have selected. They are also used in resizing frames.

### Moving Frames

To move a picture frame,

1. Click on the picture.
2. When your cursor turns into a four directional arrow, click and drag the picture frame to the desired location.



To move a text frame,

1. Click on the text frame.
2. Rest your cursor near the border of the text frame. When your cursor turns into a four directional arrow, click and drag the text frame to the desired location.

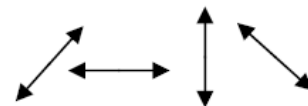
## Resizing Frames

To resize a picture frame,

1. Click on the picture.
2. Rest your cursor on a corner handle. When your cursor turns into a diagonal line with arrows on the ends, click and drag inwards at a diagonal to make it smaller or outwards at a diagonal to make it larger. Using corner handles to resize pictures allows you to keep the picture's proportions.

To resize a text frame,

1. Click on the text frame.
2. Rest your cursor on one of the handles. When your cursor turns into a line with arrows on the ends, click and drag inwards or outwards to resize the text area.



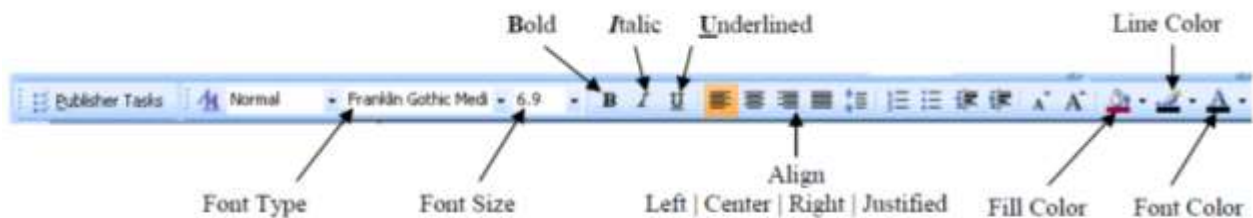
Resizing Arrows

## Deleting Frames

1. Right click on the frame that you would like to delete.
2. Select **Delete Object** from the list of choices.

## Formatting Text

1. Click in a text frame.
2. Begin typing.
3. Click and drag over the text you typed to select it for formatting changes.
4. Use the Formatting Toolbar or click on **Format** **Font** to make changes to the text's appearance



text's appearance.

## Undoing Changes

Creating a publication often involves trial and error. Unlike many of Microsoft Office's other applications, in Publisher you cannot preview what a change is going to look like until you apply it.



To undo actions, click on the undo button on the standard toolbar or click on **Undo** in the **Edit** Menu.

### Inserting Additional Text Frames

1. Click on **Text box** from the **Insert** Menu
2. Click and drag over an area of the publication.
3. Type the text you want to appear.

### Inserting Clip Art


If you want to change the picture in an existing picture frame,

1. Right click on the picture and select **Delete Object**.
2. Click on **Insert**  **Picture**  **Clip Art**.
3. A Clip Art search interface will open in the task pane.
4. Enter a search term and press **Go**.
5. You can choose to limit the search to a particular collection or a particular media type.
6. Once you discover the desired clip art, click on it to insert it.

**Notice that the clip art has a drop down arrow next to it. If you click on the drop down arrow other options present themselves. You can click on Find Similar Style for clip art of similar design. You can click on Preview/Properties to view the original size of the clip art and what keywords were used to classify the picture.**

### Create a table

#### Create a table and type text into it

1. On the **Objects** toolbar, click **Insert Table** .
2. Click inside your publication.

The **Create Table** dialog box will appear.

3. Select the options you want, and then click **OK**.
4. Size your table.

#### How?

Select the table, position the mouse pointer over a selection handle until you see the **Resizer** icon, and then drag to resize the table.

5. In the table, click the cell where you want to add text, and then start typing.

To add text to another cell, click inside that cell.

Each cell expands to fit your text, unless you lock the table size by clearing the check mark next to **Grow to Fit Text** on the **Table** menu.

### **Create a table from existing Microsoft Publisher text**

1. If the text is in a table, select the cells you want.

If the text is in a text box, make sure there's a tab or comma between each entry in a row, and a paragraph mark at the end of each row.

2. Highlight the text.
3. Right-click the highlighted text, and then click **Copy**.
4. On the **Edit** menu, click **Paste Special**.
5. In the **As** list, click **New Table**.
6. Click **OK**.

### **Create a table by using text from another program**

1. Open the program that contains the text you want.

If the text isn't already in a table, press TAB between each entry within a row of text, and press ENTER at the end of each row.

2. Select the text, and then press CTRL+C to copy it.
3. Open your Publisher publication and go to the page you want to change.
4. On the **Edit** menu, click **Paste Special**.
5. In the **As** list, click **New Table**.
6. Click **OK**.

**Note:** Depending on how your text was formatted in the other program, you might want to reformat the text after it becomes a Publisher table.

## **Working with Color Schemes**

A color scheme is a set of colors that you group together to use with your publication. You may want to create a color scheme for specific projects or simply to maintain and quickly access the colors you use most frequently. A color scheme can also be used to develop a consistent, polished look for your publication. Colors in a color scheme may be applied to any element of the publication. This document contains sections on the following topics:

- Creating a Custom Color Scheme
- Applying a Color Scheme
- Using the Colors of a Color Scheme

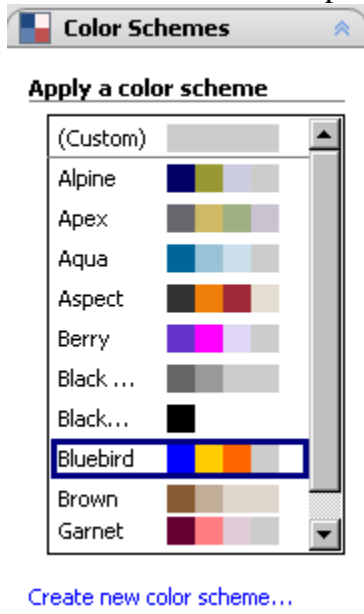
### **Creating a Custom Color Scheme**

Your color scheme will most likely consist of colors that complement each other as well as some that provide contrast. You can create and save multiple schemes for use in a variety of publications.

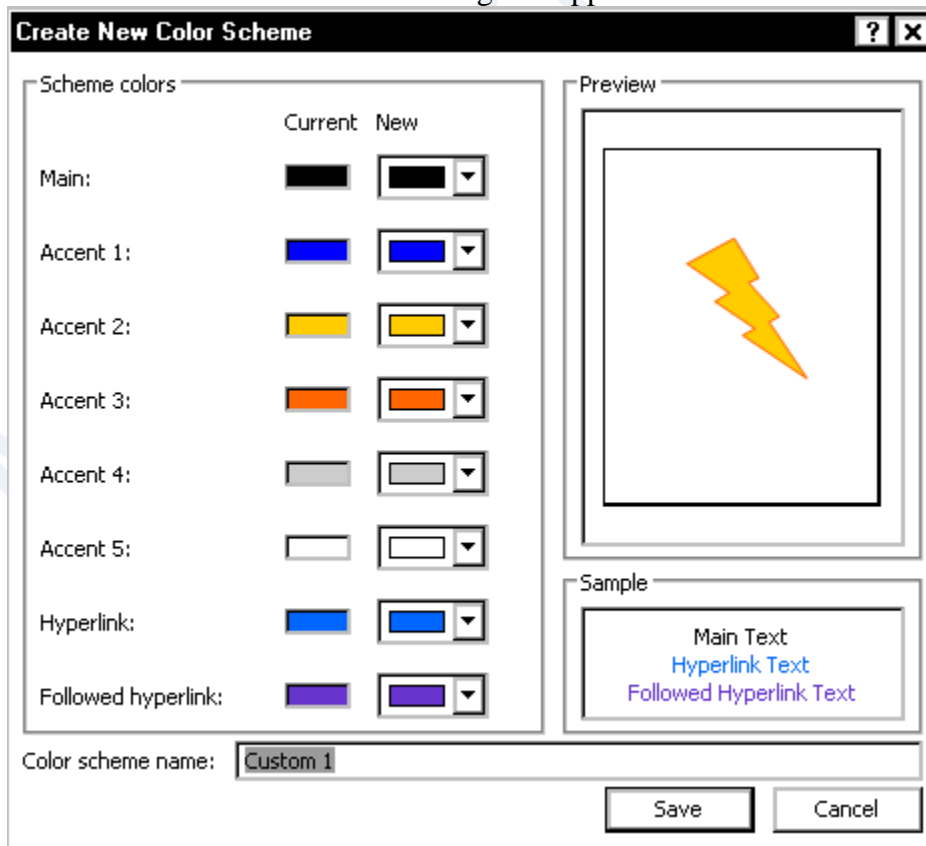
1. Create or open a publication

2. On the Publisher task pane, click **COLOR SCHEMES**  **OR**

From the *Format* menu, select *Color Schemes...*  
The *Color Schemes* task pane appears.



3. At the bottom of the task pane, click **CREATE NEW COLOR SCHEME...**  
The *Create New Color Scheme* dialog box appears.





In the **File name** box, type the name of the file you are updating, and then click **Save**.

## TOPIC 5

# EMERGING ISSUES AND TRENDS

### Trends that Are Dramatically Changing Work and the Workplace

#### The Changing Nature of Work

My wife, a manager at Hewlett-Packard, usually has a two minute commute—a thirty foot walk from the kitchen up to her office. She goes “to the central office” about once every other week, more to keep in touch socially rather than to formally collaborate. Although she only meets face-to-face with her globally-based team members about once per year, she has an audio conference with them weekly. As HP’s work force grows and becomes more global, she is a highly sought after manager. She has learned how to work with her distributed team, setting clear directions, communicating often and clearly, and, most importantly, creating activities to engender team trust and cohesion.

Most workers today do not work like my wife; most still commute to and from traditional, centralized offices and work with teams in close proximity. Nevertheless, more and more of us are—or will be—working in both non-traditional ways and places, ranging from relying on adaptable furniture and hoteling desks at the central office, to satellite offices, offshore offices, and telework from home.

According to a recent benchmarking study by our research consortium, The New Ways of Working, many organizations are formalizing “Alternative Workplace” programs that combine nontraditional work practices, settings and locations.

Almost half of the surveyed organizations have started an alternative workplace program within the past two years and a large majority within the past five years. This is striking as these programs have been around since the early 1980s.

The same study indicates that the adoption of such programs has accelerated during the recent Great Recession and shows no sign of letting up. Why, after all these years, is this happening now? Why has the pace of change picked up so dramatically? What does it mean for how and where we will work in the future? This paper identifies five trends that are dramatically changing work and workplaces.

**The first two trends have been around for more than a quarter of a century:**

1. The continuing distribution of organizations
  2. The availability of enabling technologies and social collaboration tools
- Their adoption has pushed alternative ways of working well past the pioneering stage and into the mainstream, when enough organizations “have adopted an innovation in order that the continued adoption of the innovation is self-sustaining.”

**These two trends will be reinforced by three more that will induce further change:**

3. The coming shortage of knowledge workers
  4. The demand for more work flexibility
  5. Pressure for more sustainable organizations and work-styles
- Collectively, these trends are most pronounced in technology companies, the sector that has historically led the way in adoption of new technologies and workstyles that go with them. However, as technology has become more integral to the operation or mission of organizations, these themes are permeating the larger work community. Importantly, these trends generally don’t impact the workplace directly, but have more to do with affecting how we work. The physical workplace is far more than just furnishings and real estate; it is also about how people work and are managed, the technologies that enable the work, and how the organization employs the workplace for its own ends. Going further, the workplace even reflects forces of the larger social and economic environment.

**THIS IS A SAMPLE**

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