

Subject: Human Machine Interaction  
B.E Sem VIII

## Module 6

# Window Presentation Styles and Types of Windows

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# Presentation styles

- Spatial relationship to other windows:
  1. Tiled Windows
  2. Overlapping Windows

# Tiled Windows

Tiled windows appear in one plane on the screen and expand or contract to fill up the display surface, as needed. Tiled windows, the first and oldest kind of window.

## **Advantages:**

- ▶ Open windows are always visible, eliminating the possibility of them being lost and forgotten.
- ▶ Eliminating the possibility of information being hidden.
- ▶ Less complex than overlapping windows.
- ▶ Easier to develop.
- ▶ They yield better user performance for tasks where the data requires little window manipulation to complete the task.

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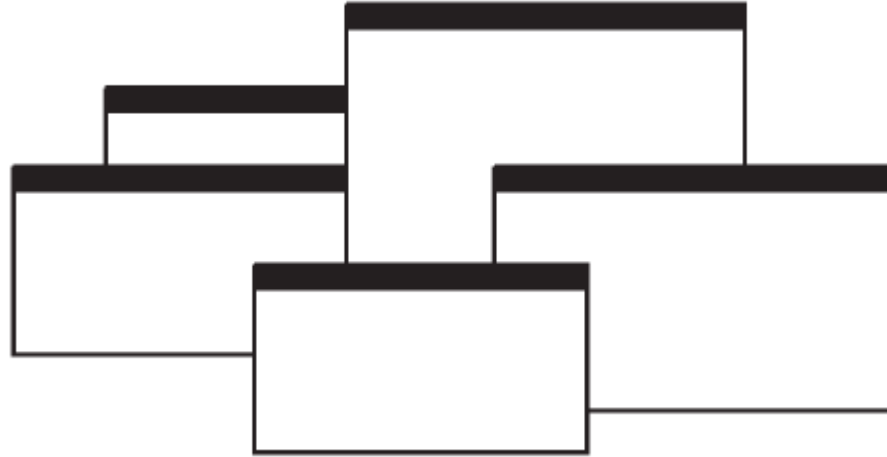

**Disadvantages:**

- ▶ Limited number can be displayed in the screen area available.
- ▶ Windows change in size or position, the movement can be disconcerting.
- ▶ The number of displayed windows increases, each window can get very tiny.
- ▶ The change in size is unpredictable.
- ▶ Visually more Complex.
- ▶ Less user Control

# Overlapping Windows

## Advantages:

- ▶ Visually, their look is three-dimensional, resembling the desktop that is familiar to the user.
- ▶ Can maintain larger sizes.
- ▶ Greater control allows the user to organize the windows to meet his or her needs.
- ▶ can maintain consistent sizes and positions.
- ▶ There is less pressure to close or delete windows no longer needed.
- ▶ The possibility exists for less visual crowding and complexity.
- ▶ Better user performance for tasks.



## Disadvantages:

- ▶ Windows themselves can be lost behind other windows and be presumed not to exist.
- ▶ That overlapping windows represent a three-dimensional space is not always realized by the user.
- ▶ Increases the possibility for greater visual complexity and crowding.
- ▶ More control functions require greater user attention and manipulation.

# Cascading Windows

A special type of overlapping window has the windows automatically arranged in a regular progression.

## **Advantages:**

- ▶ No window is ever completely hidden.
- ▶ Bringing any window to the front is easier.
- ▶ It provides simplicity in visual presentation and cleanness.



Fig: Cascading Windows

# Picking a Presentation Style

- ▶ Use tiled windows for:
  - Single-task activities.
  - Data that needs to be seen simultaneously.
  - Tasks requiring little window manipulation.
  - Novice or inexperienced users.
- ▶ Use overlapping windows for:
  - Switching between tasks.
  - Tasks necessitating a greater amount of window manipulation.
  - Expert or experienced users.
  - Unpredictable display contents.



# Types of Windows

- ▶ Primary Window
- ▶ Secondary Windows
- ▶ Dialog Boxes
- ▶ Property Sheets and Property Inspectors
- ▶ Message Boxes
- ▶ Palette Windows
- ▶ Pop-up Windows

# Primary Window

The primary window is the first one that appears on a screen when an activity or action is started.

Proper usage:

- Should represent an independent function or application.
- Use to present constantly used window components and controls.
- Menu bar items that are:
  - Used frequently.
  - Used by most, or all, primary or secondary windows.
- Controls used by dependent windows.
  - Use for presenting information that is continually updated.
- For example, date and time.
  - Use for providing context for dependent windows to be created.

Do not:

- Divide an independent function into two or more primary windows.
- Present unrelated functions in one primary window.



Fig: Primary Window

# Secondary Windows

Secondary windows may be dependent upon a primary window or displayed independently of the primary window.

Proper usage:

— For performing subordinate, supplemental, or ancillary actions that are:

- Extended or more complex in nature.
- Related to objects in the primary window.

— For presenting frequently or occasionally used window components.

Important guidelines:

— Should typically not appear as an entry on the taskbar.

— A secondary window should not be larger than 263 dialog units x 263 dialog units.

## ► Dependent Secondary Window

- It can only be displayed from a command on the interface of its primary window.
- Dependent secondary windows are closed when the primary window closes, and hidden when their primary window is hidden or minimized.

## ► Independent Secondary Window

- It can be opened independently of a primary window.
- for eg: a property sheet displayed when the user clicks the Properties command on the menu of a desktop icon.

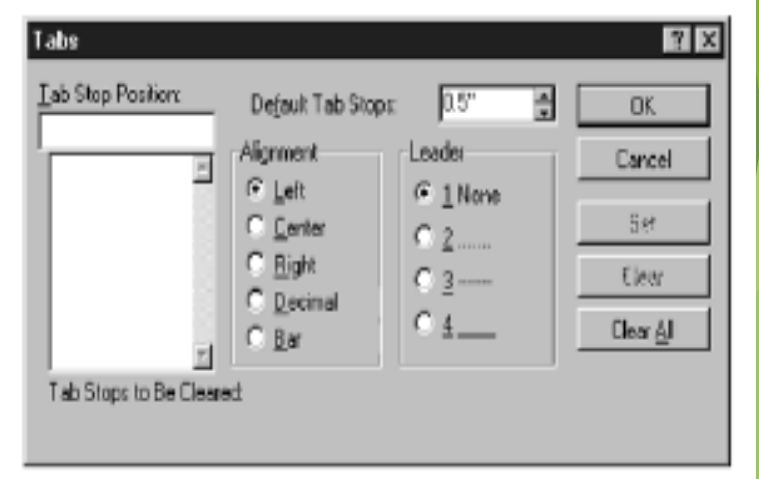


fig:Secondary Window

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A secondary window can be of two types

- ▶ Modal
- ▶ Modeless.

### **Modal**

- Use when interaction with any other window must not be permitted.
- Use for:
  - Presenting information.
    - For example, messages (sometimes called a message box).
  - Receiving user input.
    - For example, data or information (sometimes called a prompt box).

### **Modeless**

- Use when interaction with other windows must be permitted and must be repeated.

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Multiple secondary windows needed to complete a task may be presented in two forms.

► Cascading:

- A cascading window keeps the original window displayed, with the dependent window displayed on top, offset slightly to the right and below the original secondary window

► Unfolding :

- An unfolding secondary window expands to reveal additional options, a form of progressive disclosure. Unfolding windows, sometimes called expanding windows.

# Dialog Boxes

Use for presenting brief messages.

- ▶ Use for requesting specific, transient actions.
- ▶ Use for performing actions that:
  - Take a short time to complete.
  - Are not frequently changed.
- ▶ Command buttons to include:
  - OK.
  - Cancel.

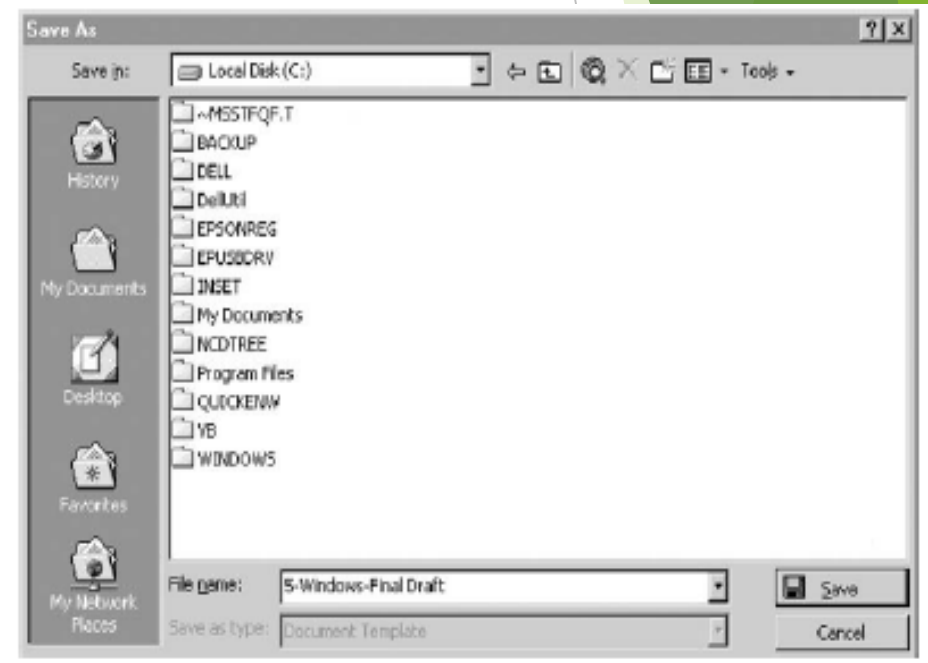


Fig: Microsoft windows dialog box

# Property Sheets and Property Inspectors

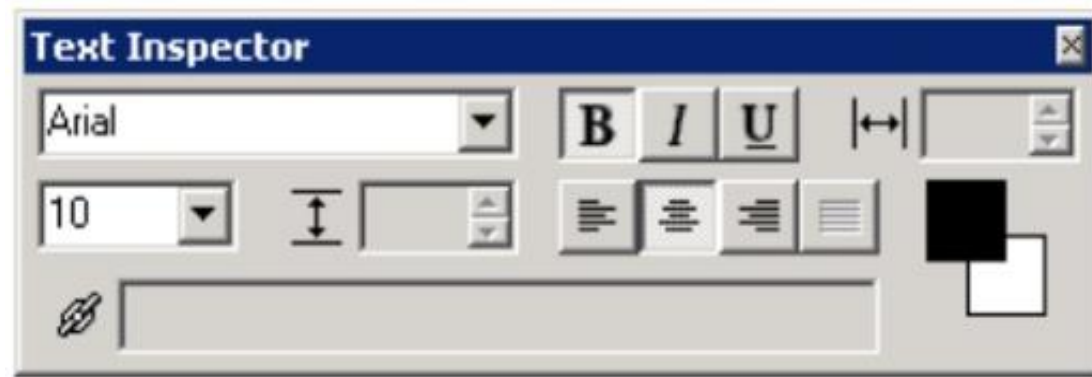
Use for presenting the complete set of properties for an object.

- ▶ A property sheet is the most common way to present an object's complete set of properties in a secondary window. A property sheet is a modeless secondary window that displays the user-accessible properties of an object, properties that may be viewed but not necessarily edited.
- ▶ For single property sheets, place the commands on the sheet.
- ▶ For tabbed property pages, place the commands outside the tabbed pages.

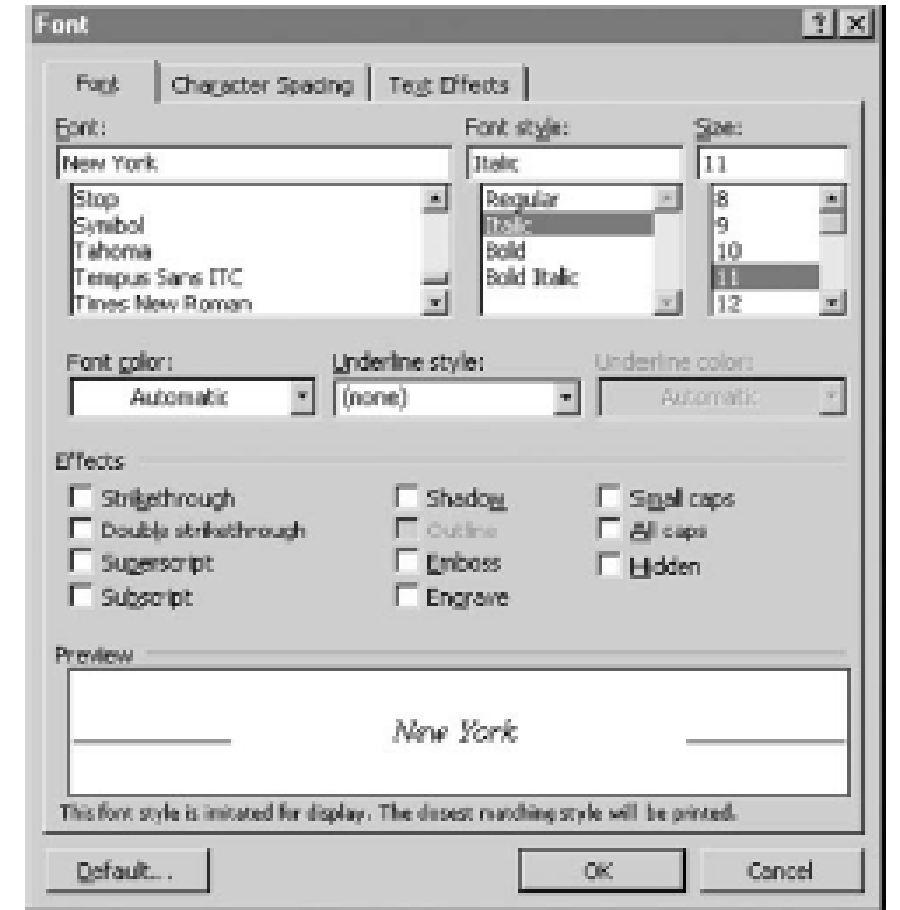


## ► Property Inspector

- Use for displaying only the most common object properties.
- Make changes dynamically.



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# Message Boxes

Use for displaying a message about a particular situation or condition.

Command buttons to include:

- OK.
- Cancel.
- Help.
- Yes and No.
- Stop.
- Buttons to correct the action that caused the message box to be displayed.
- ▶ Enable the title bar close box only if the message includes a cancel button.
- ▶ Designate the most frequent or least destructive option as the default command button.



fig: Message box

# Palette Windows

- ▶ Use to present a set of controls.
- ▶ Design as resizable.
- Alternately, design them as fixed in



Fig: Palette windows

# Pop-up Windows

- Use pop-up windows to display:
  - Additional information when an abbreviated form of the information is the main presentation.
  - Textual labels for graphical controls.
  - Context-sensitive Help information



Fig: Pop-up windows