

Applications Programming

Userform and Controls

custom Dialog Boxes

- Excel and VBA allows the user to quite easily add custom dialog boxes (userforms) to an application.
- First, insert a UserForm, the foundation of a dialog box, to the project, and then add objects, called controls, to the userform. The userform and its controls are what constitute a dialog box.
- The overall principle of design a dialog box is that it should look nice and clear to the users. When positioning the controls, be sure to maintain a consistent margin from the edge of the form.
- Because a dialog box is a window, it has a title bar and borders.
- Some of the important properties of a userform include:
 - Name: variable name of the userform
 - Caption: Title of the window
 - Picture: browse to add a background picture
 - usual colors, fonts, sizes and borders properties

Adding a userform

- Before you can create a custom dialog box, you first must add a form to the project. The form will serve as the foundation of the dialog box.
- To insert a form, click Insert from the VB Editor menu, then click UserForm.
- The Toolbox window is used to place objects, called controls, on the form. You can add additional tools to the toolbox by right-clicking an empty area on the Controls tab in the Toolbox window, and then clicking Additional Controls on the shortcut menu. Or select The Tools Menu and click on the Additional Controls item.
- You can add a control to a form simply by dragging the appropriated tool to the desired location on the form.
- The process of saving a form to a file on a disk is referred to as exporting. After a form has been exported, you can add the form to one or more projects.
- You can add an existing form to a project, a process referred to as importing, by right clicking the Project Explorer window and then clicking Import File on the shortcut menu. To open the form once it has been imported, click on the + beside forms, then double click on the form name to open.
- You can remove an existing form from a project by right-clicking the form's name in the Project Explorer window and then clicking Remove formname on the shortcut menu.

Text Box Control

- Text Box control: provide an area in the dialog box where data can be entered, edited, and displayed.
- Important properties include:
 - Name: variable name of the textbox object
 - Text/Value: text value entered into the text box.
 - PasswordChar: used to echo user input

Label Control

- display text that should not be modified by the user, such as the text that identifies another control in the dialog box or the text that represents the result of a calculation.
- Important properties include:
 - Name: variable name of the label object
 - Caption: message to be shown on this label

Command Button Control

- process one or more instructions when the user clicks the button, i.e., run a macro.
- Important properties include:
 - Name: variable name of the command button object
 - Caption: message to be shown on the button
 - Visible: show/hide this button
- Command buttons should be positioned either at the bottom or on the right side of the dialog box.

CheckBox control

- turn an option on or off. It should not be used for changing modes (i.e., printer landscape or portrait).
- Avoid groups of Check Box controls with more than about 8 items.
- Put a Frame control around groups of related CheckBox controls.
- Use vertical alignment for groups.
- Important properties include:
 - Name: variable name of the Check Box object
 - Caption: message to be shown with the check box
 - Locked: whether the value of this check box can be changed
 - Value: true/false, indicate whether the check box is checked
 - Visible: show/hide this check box

RadioButton Control

- change modes. It should not be used for turning options on/off, or yes/no choices.
- Avoid groups of Radio Button controls with more than about 8 items.
- Always put a Frame control around Radio Button controls (i.e., in a Group box).
- Use vertical alignment for groups.
- Important properties include:
 - Name: variable name of the Radio Button object
 - Caption: message to be shown with the Radio Button
 - Locked: whether the value of this Radio Button can be changed
 - Value: true/false, indicate whether the Radio Button is selected
 - Visible: show/hide this Radio Button

Spin Button Control

- allows user to increment or decrement a number
- Important properties include:
 - Name: variable name of this control
 - Max: maximum allowed value represented by this object
 - Min: minimum allowed value represented by this object
 - SmallChange: step value for each click
 - Value: the current value represented by this object

ListBox and ComboBox Control

- ListBox control: present the user with a list of items to select from.
- Always give ListBox controls a label to identify what the ListBox is for.
- ComboBox control: similar to a ListBox control, except there is a dropdown of the list.
- Always give ComboBox controls a label to identify what the ComboBox is for.