VISUAL BASIC FOR APPLICATIONS

Visual Basic for Applications (VBA) is a programming enviroment designed to work with Microsoft's Office applications (Word, Excel, Access, and Powerpoint). Components in each application (for example, worksheets or documents) are exposed as objects to the programmer to use and manipulate to a desire end. Almost anything you can do through the normal use of the Office applications can also be automated through programming. VBA is a complete programming language, but you can't use it outside the application in which it is integrated. This does not mean VBA can be integrated only with Office programs. Any software vendor that decides to implement VBA can include it with their application.

VBA is relatively easy to learn, but to use it in a new application, you must first become familiar with the object model of the application. For example, the Document and Dictionary objects are specific to the Word Object Model, whereas th Workbook, Worksheet, and Range objects are specific to the Excel object model.

The Object Model in Visual Basic

In VBA, every component of the user interface is viewed as an object or control. Below is the description of what we mean by objects, their properties and methods.

Obects: In event-driven and OOP languages, programmers think of objects as nouns. They are made up of forms (windows) and controls. Forms are the windows and dialog boxes we place on the screen, while controls are the elements we place on the forms to create the application interface. These controls include things like textboxes, list boxes, checkboxes, radio buttons, etc.

Properties: All objects have properties. These properties tell something about the object. In fact, they specify some of the attributes of the objects like colour, size, top, caption, etc. and also how they behave. As we think of objects as nouns, we think of properties as adjectives that describe the objects.

Methods: Methods are actions associated with objects. Methods are the verbs of event driven and object oriented programming. Some typical methods are Print, Move, Clear, etc. A single method can apply to different objects. To refer to methods, we use the form object.method. Example, the print method can apply to the form, picture box and printer objects and can be expressed; thus: form1.print, Picture1.print, Printer.print respectively.