

# Visual Basic Programming Tuition/Tutorials Set

**This electronic tuition set is supplied on a CD-ROM with software for viewing.  
This is NOT paper based.**

**Over 40 electronic references and guides provide you with the information you need to master  
Visual Basic 6.0, Visual Basic .NET, and VBA!**

**Thousands of pages of reference text, with illustrations, and the software to view them, print  
them, in a Windows easy-to-use layout. Own a PDA? No problem! Palm and Pocket PC's can  
view the references with ease!**

**The CD contains everything you need to use the set. This is not information that can be  
downloaded from the internet and you will not find this collection for download anywhere on  
the web. All buyers are provided with the CD, not a link for downloading.**

## The 43 tutor topics include:

### Visual Basic 6.0

18 Tutorials teaching:

- |  |  |   |
|--|--|---|
| Creating A Project In Visual Basic   | When Dragging And Dropping                                 | Drawing Freehand With The Mouse   |
| The Parts Of A Visual Basic Project  | Drag/Drop: Handling DragOver Events                        | Filling Figures With Color  |
| Project Scope  | OLE Drag/Drop: Dragging Data                               | Filling Figures With Patterns   |
| Projects On Disk   | OLE Drag/Drop: Dropping Data                               | Setting Figure Drawing Style And Drawing<br>Width                       |
| Using The Visual Basic Application Wizard                                      | OLE Drag/Drop: Reporting The Drag/Drop<br>Outcome          | Drawing Points  |
| Visual Basic Programming Conventions   | Using The Lightweight Controls                             | Setting The Drawing Mode  |
| Code Commenting Conventions  | Passing Forms To Procedures                                | Setting Drawing Scales  |
| Best Coding Practices In Visual Basic  | Determining The Active Form                                | Using The Screen Object   |
| Getting Down To The Details  | Using The Form Object's Controls<br>Collection             | Resizing Graphics When The Window Is<br>Resized                         |
| The Visual Basic Development Environment                                       | Using the Forms Collection                                 | Copying Pictures To And Pasting Pictures<br>From The<br>Clipboard       |
| The Integrated Development Environment<br>Immediate Solutions                  | Setting A Form's Startup Position                          | Printing Graphics   |
| Selecting IDE Colors, Fonts, And Font<br>Sizes                                 | Keeping A Form's Icon Out Of The<br>Windows 95 Taskbar     | Layering Graphics With The AutoRedraw<br>And ClipControls<br>Properties |
| Aligning, Sizing, And Spacing Multiple<br>Controls                             | Handling Keystrokes In A Form Before<br>Controls Read Them | Working With Images   |
| Setting A Startup Form Or Procedure  | Making A Form Immovable                                    | Picture Boxes Vs. Image Controls  |
| Using Visual Basic Predefined Forms,<br>Menus, And Projects                    | Showing Modal Forms  | Image Effects: Working With Images Bit By<br>Bit                        |
| Setting A Project's Version Information  | Saving Values In The Windows Registry                      | Immediate Solutions   |
| Setting An EXE File's Name And Icon  | Getting Values From The Windows Registry                   | Adding Images To Controls   |
| Displaying The Debug, Edit, And Form<br>Editor Toolbars                        | Getting All Registry Settings                              | Adding Images To Forms  |
| Turning Bounds Checking On Or Off  | Deleting A Registry Setting                                | Using Image Controls  |
| Checking For Pentium Errors  | Error Handling And Debugging                               | Using Picture Boxes   |
| Managing Add-Ins   | Testing Your Programs                                      | AutoSizing Picture Boxes  |
| Adding ActiveX Controls And Insertable<br>Objects To Projects                  | Immediate Solutions  | Loading Images In At Runtime  |
| Customizing Menus And Toolbars   | Writing Error Handlers                                     | Clearing (Erasing) Images   |
| Setting Forms' Initial Positions   | Using On Error GoTo Label                                  | Storing Images In Memory Using The Picture<br>Object                    |
| Enabling Or Disabling Quick Info, Auto List<br>Members, Data                   | Using On Error GoTo line#                                  | Using Arrays Of Picture Objects   |
| Tips, And Syntax Checking  | Using On Error Resume Next                                 | Adding Picture Clip Controls To A Program                               |
| Displaying Or Hiding IDE Windows   | Using On Error GoTo 0                                      | Selecting Images In A Picture Clip Control                              |
| Searching An Entire Project For Specific<br>Text Or A<br>Variable's Definition | Using Resume In Error Handlers                             | Using Coordinates   |
| Optimizing For Fast Code, Small Code, Or<br>A Particular<br>Processor          | Using Resume Label In Error Handlers                       | Selecting Images In A Picture Clip Control<br>Using Rows And<br>Columns |
| Adding And Removing Forms, Modules,<br>And Class Modules                       | Using Resume line# In Error Handlers                       | Flipping Images   |
| Using Bookmarks  | Using Resume Next In Error Handlers                        | Stretching Images   |
|  | Getting An Error's Error Code                              | Creating Image Animation  |
|  | Getting An Error's Description                             | Handling Images Bit By Bit  |
|  | Determining An Error's Source Object                       |   |
|  | Handling Errors In DLLs: The LastDLLError<br>Property      |   |
|  | Creating An Intentional (User-Defined) Error               |   |
|  | Nested Error Handling                                      |   |
|  | Creating An Error Object Directly In Visual                |   |

Using The Object Browser	Basic	Creating Grayscale Images
How Does Visual Basic Code Look?	Trappable Cancel Errors In Common Dialogs	Lightening Images
Immediate Solutions	Debugging In Visual Basic	Creating "Embossed" Images
Declaring Constants	Setting Debugging Breakpoints	Creating "Engraved" Images
Declaring Variables	Single-ping While Debugging	Sweeping Images
Selecting Variable Types	Examining Variables And Expressions	Blurring Images
Converting Between Data Types	Adding Debug Watch Windows	Freeing Memory Used By Graphics
Setting Variable Scope	Using The Immediate Window While Debugging	Creating ActiveX Controls And Documents
Verifying Data Types	Clearing All Debugging Breakpoints	All About ActiveX Components
Declaring Arrays And Dynamic Arrays	Executing Code Up To The Cursor While Debugging	In-Process Vs. Out-Of-Process Components
Declaring Subroutines	Skipping Over Statements While Debugging	Which ActiveX Component Do I Want To Build?
Declaring Functions	Deploying Your Program: Creating Setup Programs, Help Files, And Online Registration	Immediate Solutions
Preserving Variables' Values Between Calls To Their Procedures	Setup Programs	Creating An ActiveX Control
Handling Strings	Help Files	Designing An ActiveX Control From Scratch
Converting Strings To Numbers And Back Again	Online Registration	Giving ActiveX Controls Persistent Graphics
Handling Operators And Operator Precedence	The "Designed For Microsoft Windows" Logo	Basing An ActiveX Control On An Existing Visual Basic Control
Using If...Else Statements	Immediate Solutions	Handling Constituent Control Events In An ActiveX Control
Using Select Case	Creating Your Application's EXE File	Adding Controls To An ActiveX Control (A Calculator ActiveX Control)
Making Selections With Switch() And Choose()	Using The Package And Deployment Wizard	Testing An ActiveX Control
Looping	Package Type	Creating A Visual Basic Project Group To Test An ActiveX Control
Using Collections	Build Folder	Registering An ActiveX Control
Sending Keystrokes To Other Programs	Files	Using A Custom ActiveX Control In A Visual Basic Program
Handling Higher Math	Distribution Type	Adding A Property To An ActiveX Control
Handling Dates And Times	Installation Title	Making ActiveX Control Properties Persistent (PropertyBag Object)
Handling Financial Data	Icons	Adding A Method To An ActiveX Control
Ending A Program At Any Time	Install Locations	Adding An Event To An ActiveX Control
Managing Forms In Visual Basic	Shared Files	Adding Design Time Property Pages
The Parts Of A Form	Creating Help Files With The Microsoft Help Workshop	Creating An ActiveX Document
The Parts Of An MDI Form	Creating A Help Project's RTF File	ActiveX Document DLLs Vs. EXEs
Immediate Solutions	Entering Text In A Help File	Adding Controls To An ActiveX Document (A Tic-Tac-Toe Control)
Setting Title Bar Text	Creating A Help Hotspot	Handling Constituent Control Events In An ActiveX Document
Adding/Removing Min/Max Buttons And Setting A Window's Border	Creating A Help Hotspot Target	Testing An ActiveX Document
Adding Toolbars To Forms	Titling A Help Page	Creating ActiveX Documents That Run Outside Visual Basic
Adding Status Bars To Forms	Adding Help Topics To The Help Index	Distributed Computing: ActiveX Documents And Integrated Browsers
Referring To The Current Form	Creating Help Pop-Up Links	Making ActiveX Document Properties Persistent (PropertyBag Object)
Redrawing Form Contents	Creating Help "Tool Tips" Targets	Visual Basic And The Internet: Web Browsing, Email, HTTP, FTP, And DHTML
Setting Control Tab Order	Compiling Help Files With The Help Workshop	Creating A Web Browser
Moving And Sizing Controls From Code	Displaying A Help File From Visual Basic	Creating A Dynamic HTML Page
Showing And Hiding Controls In A Form	Building Online Help Into Your Application	Working With Email
Measurements In Forms	Creating Online User Registration	Using FTP
Working With Multiple Forms	Uploading Online Registration Information To An FTP Server	Using HTTP
Loading, Showing, And Hiding Forms	A Full-Scale DAO Example	Immediate Solutions
Setting The Startup Form	Using The Daocode Example To Create And Edit A Database	Creating A Web Browser
Creating Forms In Code	DAO: Creating A Database	Specifying URLs In A Web Browser
Using The Multiple Document Interface	DAO: Creating A Table With A TableDef Object	Drawing A Shape Without The IDE Grid
Arranging MDI Child Windows	DAO: Adding Fields To A TableDef Object	Moving Shapes At Runtime
Opening New MDI Child Windows	DAO: Adding An Index To A TableDef Object	Adding A Line Control To A Program
Arrays Of Forms	DAO: Creating A Record Set	Drawing Thicker, Dotted, And Dashed Lines
Coordinating Data Between MDI Child Forms (Document Views)	DAO: Opening A Database	Drawing A Line Without The IDE Grid
Creating Dialog Boxes	DAO: Adding A Record To A Record Set	
All About Message Boxes And Input Boxes	DAO: Editing A Record In A Record Set	
Passing Forms To Procedures	DAO: Updating A Record In A Record Set	
Minimizing/Maximizing And Enabling/Disabling Forms From Code	DAO: Moving To The First Record In A Record Set	
Visual Basic Menus	DAO: Moving To The Last Record In A Record Set	
Menu Design Considerations		
Immediate Solutions		
Using The Visual Basic Application Wizard To Set Up Your		

Menus	DAO: Moving To The Next Record In A Record Set	Changing A Line Control At Runtime
What Item Goes In What Menu?	DAO: Moving To The Previous Record In A Record Set	Using Form Methods To Draw Lines
Adding A Menu To A Form	DAO: Deleting A Record In A Record Set	Using Form Methods To Draw Circles
Modifying And Deleting Menu Items	DAO: Sorting A Record Set	Toolbars
Adding A Menu Separator	DAO: Searching A Record Set	Status Bars
Adding Access Characters	DAO: Executing SQL	Progress Bars
Adding Shortcut Keys	A Full-Scale RDO Example	Coolbars
Creating Submenus	RDO: Opening A Connection	Immediate Solutions
Creating Immediate ("Bang") Menus	RDO: Creating A Result Set	Adding A Toolbar To A Form
Using The Visual Basic Predefined Menus	RDO: Moving To The First Record In A Result Set	Aligning Toolbars In A Form
Adding A Checkmark To A Menu Item	RDO: Moving To The Last Record In A Result Set	Adding Buttons To A Toolbar
Disabling (Graying Out) Menu Items	RDO: Moving To The Next Record In A Result Set	Handling Toolbar Buttons Clicks
Handling MDI Form And MDI Child Menus	RDO: Moving To The Previous Record In A Result Set	Connecting Toolbar Buttons To Menu Items
Adding A List Of Open Windows To An MDI Form's Window Menu	RDO: Executing SQL	Adding Separators To A Toolbar
Making Menus And Menu Items Visible Or Invisible	A Full-Scale ADO Example	Adding Images To Toolbar Buttons
Creating And Displaying Pop-Up Menus	ADO: Opening A Connection	Adding Check (Toggle) Buttons To A Toolbar
Adding And Deleting Menu Items At Runtime	ADO: Creating A Record Set From A Connection	Creating Button Groups In A Toolbar
Adding Bitmaps To Menus	ADO: Binding Controls To Record Sets	Adding Combo Boxes And Other Controls To A Toolbar
Using The Registry To Store A Most Recently Used (MRU) Files List	ADO: Adding A Record To A Record Set	Setting Toolbar Button Tool Tips
Text Boxes And Rich Text Boxes	ADO: Refreshing The Record Set	Letting The User Customize The Toolbar
Use Of Text Boxes And RTF Boxes In Windows Programs	ADO: Updating A Record In A Record Set	Adding Toolbar Buttons At Runtime
Immediate Solutions	ADO: Moving To The First Record In A Record Set	Adding A Status Bar To A Program
Creating Multiline, Word-Wrap Text Boxes	ADO: Moving To The Last Record In A Record Set	Aligning Status Bars In A Form
Aligning Text In Text Boxes	ADO: Moving To The Next Record In A Record Set	Adding Panels To A Status Bar
Adding Scroll Bars To Text Boxes	ADO: Moving To The Previous Record In A Record Set	Displaying Text In A Status Bar
Making A Text Box Read-Only	ADO: Deleting A Record In A Record Set	Displaying Time, Dates, And Key States In A Status Bar
Accessing Text In A Text Box	ADO: Executing SQL In A Record Set OLE	Customizing A Status Bar Panel's Appearance
Selecting And Replacing Text In A Text Box	Linking Vs. Embedding	Displaying Images In A Status Bar
Copying Or Getting Selected Text To Or From The Clipboard	Immediate Solutions	Handling Panel Clicks
Creating A Password Control	Adding An OLE Control To A Form	Adding New Panels To A Status Bar At Runtime
Controlling Input In A Text Box	Creating And Embedding An OLE Object At Design Time	Creating Simple Status Bars
Adding An RTF Box To A Form	Linking Or Embedding An Existing Document At Design Time	Adding A Progress Bar To A Form
Accessing Text In A Rich Text Box	Autosizing An OLE Control	Using A Progress Bar
Selecting Text In Rich Text Boxes	Determining How An Object Is Displayed In An OLE Container Control	Adding A Coolbar To A Form
Using Bold, Italic, Underline, And Strikethru	Using The OLE Control's Pop-Up Menus At Design Time	Aligning Coolbars In A Form
Indenting Text In Rich Text Boxes	Inserting An OLE Object Into An OLE Control At Runtime	Adding Bands To A Coolbar
Setting Fonts And Font Sizes In Rich Text Boxes	Deactivating OLE Objects	Adding Controls To Coolbar Bands
Using Bullets In Rich Text Boxes	Using Paste Special To Insert A Selected Part Of A Document Into An OLE Control	Handling Coolbar Control Events
Aligning Text In A Rich Text Box	How To Activate The OLE Objects In Your Program	Image Lists, Tree Views, List Views, And Tab Strips
Setting Text Color In RTF Boxes	Activating OLE Objects With A Pop-Up Menu That Lists All OLE Verbs	Image Lists
Moving The Insertion Point In RTF Boxes	Activating OLE Objects From Code Is An Object Linked Or Embedded?	Tree Views
Adding Superscripts And Subscripts In Rich Text Boxes	Handling Multiple OLE Objects	List Views
Text Boxes	Using OLE Control Arrays To Handle Multiple OLE Objects	Tab Strips
Setting The Mouse Pointer In Text Boxes And Rich Text Boxes		Immediate Solutions
Searching For (And Replacing) Text In RTF Boxes		Adding An Image List To A Form
Saving RTF Files From Rich Text Boxes		Adding Images To Image Lists
Reading RTF Files Into A Rich Text Box		Using The Images In Image Lists
Printing From A Rich Text Box		Setting Image Keys In An Image List
Command Buttons, Checkboxes, And Option Buttons		Adding A Tree View To A Form
Immediate Solutions		Selecting Tree View Styles
Setting A Button's Caption		Adding Nodes To A Tree View
Setting A Button's Background Color		Adding Subnodes To A Tree View
Setting Button Text Color		Adding Images To A Tree View
Setting Button Fonts		Expanding And Collapsing Nodes (And Setting Node Images To Match)
		Handling Tree View Node Clicks
		Adding A List View To A Form
		Adding Items To A List View
		Adding Icons To List View Items
		Adding Small Icons To List View Items
		Selecting The View Type In List Views
		Adding Column Headers To A List View
		Adding Column Fields To A List View

Reacting To Button Clicks	Loading New OLE Controls At Runtime	Handling List View Item Clicks
Creating Button Control Arrays	Dragging OLE Objects In A Form	Handling List View Column Header Clicks
Resetting The Focus After A Button Click	Deleting OLE Objects	Adding A Tab Strip To A Form
Giving Buttons Access Characters	Copying And Pasting OLE Objects With The Clipboard	Inserting Tabs Into A Tab Strip Control
Setting Button Tab Order	Zooming OLE Objects	Setting Tab Captions
Disabling Buttons	Saving And Retrieving Embedded Object's Data	Setting Tab Images
Showing And Hiding Buttons	Handling OLE Object Updated Events	Using A Tab Strip To Display Other Controls
Adding Tool Tips To Buttons	Disabling In-Place Editing	Handling Tab Clicks
Resizing And Moving Buttons From Code	Creating Code Components (OLE Code Components: Classes And Objects Code Components And Threads Immediate Solutions	Sequential Access Files
Adding A Picture To A Button	Code Components: Classes And Objects Code Components And Threads Immediate Solutions	Binary Files
Adding A Down Picture To A Button	Using A Code Component From A Client Application	The FileSystemObject
Adding Buttons At Runtime	Creating An Object From A Class	Immediate Solutions
Passing Buttons To Procedures	Using A Code Component's Properties And Methods	Using The Common Dialogs File Open And File Save As
Handling Button Releases	Creating A Code Component	Creating A File
Making A Command Button Into A Cancel Button	Setting A Code Component's Project Type: In-Process Or Out-Of-Process	Getting A File's Length
Getting A Checkbox's State	Adding A Property To A Code Component	Opening A File
Setting A Checkbox's State	Adding A Get/Let Property To A Code Component	Writing To A Sequential File
Grouping Option Buttons Together	Adding A Method To A Code Component	Writing To A Random Access File
Getting An Option Button's State	Passing Arguments To A Code Component Method	Writing To A Binary File
Setting An Option Button's State	Passing Optional Arguments To A Code Component Method	Reading From Sequential Files
Using Graphical Checkboxes And Radio Buttons	Testing A Code Component With A Second Instance Of Visual Basic	Reading From Random Access Files
Using Checkboxes And Option Buttons Together	Creating And Registering An In-Process Code Component	Reading From Binary Files
List Boxes And Combo Boxes	Creating And Registering An Out-Of-Process Code Component	Accessing Any Record In A Random Access File
Immediate Solutions	Using The Class Initialize Event	Closing A File
Adding Items To A List Box	Using The Class Terminate Event	Saving Files From Rich Text Boxes
Referring To Items In A List Box By Index	Global Objects: Using Code Components Without Creating An Object	Opening Files In Rich Text Boxes
Responding To List Box Events	Destroying A Code Component Object	Saving Files From Picture Boxes
Removing Items From A List Box	Using Forms From Code Components	Opening Files In Picture Boxes
Sorting A List Box	Creating Dialog Box Libraries In Code Components	Using The Drive List Box Control
Determining How Many Items Are In A List Box	Designing Multithreaded In-Process Components	Using The Directory List Box Control
Determining If A List Box Item Is Selected	Designing Multithreaded Out-Of-Process Components	Using The File List Box Control
Using Multiselect List Boxes	Advanced Form, Control, And Windows Registry Handling	Creating And Deleting Directories
Making List Boxes Scroll Horizontally	Drag And Drop And OLE Drag And Drop The Windows Registry	Changing Directories
Using Checkmarks In A List Box	Immediate Solutions	Copying A File
Clearing A List Box	Passing Controls To Procedures	Moving A File
Creating Simple Combo Boxes, Drop-Down Combo Boxes, And Drop-Down List Combo Boxes	Passing Control Arrays To Procedures	Deleting A File
Adding Items To A Combo Box	Determining The Active Control	When Was A File Created? Last Modified? Last Accessed?
Responding To Combo Box Selections	Determining Control Type At Runtime	Creating A TextStream
Removing Items From A Combo Box	Creating/Loading New Controls At Runtime	Opening A TextStream
Getting The Current Selection In A Combo Box	Changing Control Tab Order	Writing To A TextStream
Sorting A Combo Box	Changing Control Stacking Position With Z-Order	Reading From A TextStream
Clearing A Combo Box	Drag/Drop: Dragging Controls	Closing A TextStream
Locking A Combo Box	Drag/Drop: Dropping Controls	Working With Graphics
Getting The Number Of Items In A Combo Box	Handling "Self-Drops"	Immediate Solutions
Setting The Topmost Item In A List Box Or Combo Box	Using A Font Dialog Box	Redrawing Graphics In Windows: AutoRedraw And Paint
Adding Numeric Data To Items In A List Box Or Combo Box		Clearing The Drawing Area
Determining Where An Item Was Added In A Sorted List Box Or Combo Box		Setting Colors
Using Images In Combo Boxes		Drawing Text
Scroll Bars And Sliders		Working With Fonts
Adding Scroll Bars And Sliders To A Program		Drawing Lines
Immediate Solutions		Drawing Boxes
Adding Horizontal Or Vertical Scroll Bars To A Form		Drawing Circles
Setting Scroll Bars' Minimum And Maximum Values		Drawing Ellipses
Setting Up Scroll Bar Clicks (Large		Drawing Arcs
		Adding Back And Forward Buttons To A Web Browser
		Adding Refresh, Home, And Stop Buttons To A Web Browser
		Creating DHTML Pages
		Adding Text To DHTML Pages
		Adding Images To DHTML Pages
		Adding HTML Controls To DHTML Pages
		Adding ActiveX Controls To DHTML Pages
		Adding Tables To DHTML Pages
		Adding Hyperlinks To DHTML Pages

Changes)	Setting Font Dialog Flags	Using MAPI Controls To Support Email
Setting Up Scroll Bar Arrow Clicks (Small Changes)	Setting Max And Min Font Sizes	Sending Email From Visual Basic
Getting A Scroll Bar's Current Value	Using The Print Dialog Box	Reading Email In Visual Basic
Handling Scroll Bar Events	Setting Print Dialog Flags	Using The Internet Transfer Control For FTP And HTTP Operations
Handling Continuous Scroll Bar Events	Setting Page Orientation	Handling FTP Operations In Visual Basic
Showing And Hiding Scroll Bars	Showing Windows Help From A Visual Basic Program	Handling HTTP Operations In Visual Basic
Coordinating Scroll Bar Pairs	The Chart And Grid Controls	Multimedia
Adding Scroll Bars To Text Boxes	The Chart Control	The Multimedia MCI Control
Creating And Using Flat Scroll Bars	Grid Controls	Using The Multimedia Control From Code
Customizing Flat Scroll Bar Arrows	Immediate Solutions	Using The Animation Control
Creating Slider Controls	Adding A Chart Control To A Program	Adding A Multimedia Control To A Program
Setting A Slider's Orientation	Adding Data To A Chart Control	Setting The Device Type And Opening The Device
Setting A Slider's Range	Working With A Multiple Data Series	Setting File Information And Opening Files
Setting Up Slider Groove Clicks	Setting Chart And Axis Titles And Chart Colors	Setting A Multimedia Control's Time Format
Adding Ticks To A Slider	Creating Pie Charts	Controlling The Multimedia Control From Code
Setting A Slider's Tick Style	Creating 2D And 3D Line Charts	Stopping And Pausing The Multimedia Control
Getting A Slider's Current Value	Creating 2D And 3D Area Charts	Displaying The Multimedia Control's Status
Handling Slider Events	Creating 2D And 3D Bar Charts	Closing The Multimedia Control
Handling Continuous Slider Events	Creating 2D And 3D Charts	Playing CDs From Your CD-ROM Drive
Handling Slider Selections	Creating 2D And 3D Combination Charts	Playing WAV Files
Clearing A Selection In A Slider	Adding A Flex Grid Control To A Program	Playing MID Files
Creating An Updown Control	Working With Data In A Flex Grid Control	Playing AVI Files
Setting An Updown Control's Minimum And Maximum	Typing Data Into A Flex Grid	Playing MPG Files
Handling Updown Events	Setting Flex Grid Grid Lines And Border Styles	Keeping Track Of Multimedia Command Execution Using Notification
Picture Boxes And Image Controls	Labeling Rows And Columns In A Flex Grid	Handling Multimedia Errors
Image Controls	Formatting Flex Grid Cells	ping A Multimedia Control Forward Or Backward
Picture Boxes	Sorting A Flex Grid Control	Frame By Frame
Immediate Solutions	Dragging Columns In A Flex Grid Control	Starting From And To In A Multimedia Control
Adding A Picture Box To A Form	Connecting A Flex Grid To A Database	Making The Multimedia Control Wait
Setting Or Getting The Picture In A Picture Box	The Timer And Serial Communications Controls	Multimedia Without Multimedia Controls
Adjusting Picture Box Size To Contents	The Timer Control	Connecting To The Windows API And Visual C++
Aligning A Picture Box In A Form	The Communications Control	Declaring And Using DLL Procedures In Visual Basic
Handling Picture Box Events (And Creating Image Maps)	The MonthView And DateTimePicker Controls	Handling C/C++ And Windows Data Types
Picture Box Animation	Immediate Solutions	What's Available In The Windows API?
Grouping Other Controls In A Picture Box	Adding A Timer Control To A Program	Immediate Solutions
Using A Picture Box In An MDI Form	Initializing A Timer Control	Getting Or Creating A Device Context (Including The Whole Screen)
Drawing Lines And Circles In A Picture Box	Handling Timer Events	Drawing Lines In A Device Context
Using Image Lists With Picture Boxes	Formatting Times And Dates	Drawing Ellipses In A Device Context
Adding Text To A Picture Box	Creating A Clock Program	Drawing Rectangles In A Device Context
Formatting Text In A Picture Box	Creating A Stopwatch	Setting Drawing Colors And Styles (Using Pens)
Clearing A Picture Box	Creating An Alarm Clock	Setting Drawing Modes (ROP2)
Accessing Individual Pixels In A Picture Box	Creating Animation Using The Timer Control	Handling The Mouse Outside Your Program's Window
Copying Pictures To And Pasting Pictures From The Clipboard	Adding A Communications Control To A Program	Copying Bitmaps Between Device Contexts Quickly
Stretching And Flipping Images In A Picture Box	Setting Up The Receive And Transmit Buffers	Capturing Images From The Screen
Printing A Picture	Opening The Serial Port	Getting A Window Handle For Any Window On The Screen
Using Picture Box Handles	Working With A Modem	Getting A Window's Text
Setting Measurement Scales In A Picture Box	Reading Data With The Communications Control	Playing Sounds With API Functions
Saving Pictures To Disk	Sending Data With The Communications Control	Allocating Memory And Storing Data
Adding An Image Control To A Form	Setting Up Communications Handshaking	Reading Data From Memory And Deallocating Memory
Stretching An Image In An Image Control	Handling Communications Events	Drawing Rounded Rectangles
Windows Common Dialogs	Closing The Serial Port	
The Common Dialog Control	Adding A MonthView Control To Your Program	
Immediate Solutions	Getting Dates From A MonthView Control	
Creating And Displaying A Windows Common Dialog	Adding A DateTimePicker Control To Your Program	
Setting A Common Dialog's Title	Using A DateTimePicker Control	
Did The User Click OK Or Cancel?		
Using A Color Dialog Box		
Setting Color Dialog Flags		
Using The Open And Save As Dialogs		
Setting Open And Save As Flags		
Getting The File Name In Open, Save As		

- Dialogs
- Setting Maximum File Name Size In Open And Save As
- Dialog Boxes
- Setting Default File Extensions
- Set Or Get The Initial Directory
- Setting File Types (Filters) In Open, Save As Dialogs
- An ADO Data Control
- Connecting An ADO Data Control To A Bound Control
- The Data Form Wizard: Creating A Data Form
- Using Database Control Methods: Adding, Deleting, And
- Modifying Records
- Adding Records To Databases
- Deleting Records In Databases
- Refreshing A Data Control
- Updating A Database With Changes
- Immediate Solutions
- A Remote Data Control
- Connecting A Remote Data Control To A Bound Control
- A Bound Control

- The Frame, Label, Shape, And Line
- The Frame Control
- The Label Control
- The Shape Control
- The Line Control
- Form Drawing Methods
- Immediate Solutions
- Adding A Frame To A Program
- Setting Frame Size And Location
- Dragging And Dropping Controls
- Grouping Controls In A Frame
- Adding A Label To A Program
- Using Labels Instead Of Text Boxes
- Formatting Text In Labels
- Aligning Text In Labels
- Handling Label Control Events
- Using Labels To Give Access Keys To Controls Without Captions
- Adding A Shape Control To A Program
- Drawing Rectangles
- Drawing Squares
- Drawing Ovals
- Drawing Circles
- The Data-Bound Controls: From Text Boxes To Flex Grids
- The ADO Data-Bound Controls
- Working With Database Objects In Code
- Registering An ODBC Source

- Drawing Rounded Squares
- Setting Shape Borders: Drawing Width, Dashes, And Dots
- Filling Shapes
- Making A Window Topmost
- Determining Free And Total Disk Space
- Determining The Windows Directory
- Connecting To Visual C++
- Databases: Using DAO, RDO, And ADO
- What Are Databases?
- DAO
- RDO
- ADO
- The Data-Bound Controls
- Immediate Solutions
- Creating And Managing Databases With The Visual Data Manager
- Creating A Table With The Visual Data Manager
- Creating A Field With The Visual Data Manager
- Entering Data In A Database With The Visual Data Manager
- Adding A Data Control To A Program
- Opening A Database With The Data Control
- Connecting A Data Control To

# Visual Basic .NET

## 17 Tutorials Teaching:

- Designing the New IDE
  - Cosmetic Improvements
- Development Accelerators
  - .NET Framework
  - .NET Architecture
  - Framework Classes
  - .NET Servers
- Common Language Runtime
  - History
  - Convergence
  - Object-Oriented Language
  - Object-Oriented Concepts
  - Advantages of Object-Oriented Design
  - History of Object Orientation and VB
    - Namespaces
    - Web Applications
      - Web Forms
      - Web Services
    - HyperText Transport Protocol
    - Simple Object Access Protocol
    - .NET Architecture
    - .NET Framework
    - ASP.NET
    - Updated ASP Engine
    - Web Forms Engine
    - Framework Classes
- System.Math, System.io, System.Data, Etc.
- Common Language Runtime
  - Memory Management
  - Common Type System
  - Garbage Collection
  - .NET Servers
    - Security
    - Type Safety
    - Casting
    - Data Conversion
    - Bitwise Operations
    - New Compiler
  - Compiling an Executable
  - Architecture
- File Management in Previous Versions of VB
  - File Management
- Changes from Visual Basic
  - Variants
  - Variable Lower Bounds
  - Fixed Length Strings
  - NULL Propagation
  - Other Items Removed
  - Function Values
  - Short Circuits
  - Properties and Variables
  - Variable Lengths
  - Get and Set
  - Date Type
  - Default Properties
  - The Microsoft .NET Framework
  - The Common Language Runtime
- Using .NET-Compliant Programming Languages
  - Creating Assemblies
  - Using the Manifest
  - Compiling Assemblies
  - Assembly Cache
  - Locating an Assembly
  - Private Assembly Files
  - Shared Assembly Files
  - Understanding Metadata
  - The Benefits of Metadata
  - Identifying an Assembly with Metadata
    - Types
    - Defining Members
    - Using Contracts
    - Assembly Dependencies
    - Unmanaged Assembly Code
    - Reflection
    - Attributes
    - Ending DLL Hell
- The OpenFileDialog Control
- The SaveFileDialog Control
- The FontDialog Control
- The ColorDialog Control
- The PrintDialog Control
- The PrintPreviewDialog Control
- The PageSetupDialog Control
- Creating Dialog Boxes
- Creating and Working with Menus
  - Adding Menus to a Form
- Exercise . Adding a Menu to a Form at Design Time
- Creating Dialog Boxes
  - Create a form.
  - Set the BorderStyle property of the form to FixedDialog.
  - ControlBox
  - MinimizeBox
  - MaximizeBox to False.
- Dynamically Creating Menus
  - Adding a Menu to a Form
  - Adding Status Bars to Forms
  - Adding Toolbars to Forms
  - Data Binding
    - Simple Data Binding
    - Complex Data Binding
  - Data Sources for Data Binding
  - Using the Data Form Wizard
  - Using the Windows Forms Class Viewer
  - Using the Windows Forms ActiveX Control
    - Importer
    - Windows Forms
  - Components and Controls
    - Built-In Controls
    - Label Control
    - LinkLabel Control
    - TextBox Control
    - Button Control
    - CheckBox Control
    - RadioButton Control
    - RichTextBox Control
    - TreeView Control
    - ListBox Control
    - CheckedListBox Control
    - ListView Control
    - ComboBox Control
    - DomainUpDown Control
    - NumericUpDown Control
    - PictureBox Control
    - TrackBar Control
    - Adding Items to a Combo Box at Design-Time
    - Select the ComboBox control on the form.
    - DateTimePicker Control
    - Panel Control
    - GroupBox Control
    - TabControl Control
  - Creating Custom Windows Components
    - Exercise .: Creating a Custom Windows Component
  - Creating Custom Windows Controls
    - Creating a Custom Windows Control
    - Using ADO.NET
    - XML Documents
      - XSL
      - XDR
      - XPath
    - Understanding ADO.NET Architecture
    - Differences between ADO and ADO.NET
    - Maintaining State
    - Using the XML Schema Definition Tool
  - Customizing the Toolbars
    - Adding a New Toolbar to the Existing Set
    - Adding Commands to Toolbars
  - Customizing Built-In Commands
    - Creating an Alias
  - Customizing the Start Page
    - Accessibility Options
    - Solutions Fast Track
  - Frequently Asked Questions
  - Common Language Runtime
    - Component Architecture
    - Managed Code versus Unmanaged Code
    - Interoperability with Managed Code
      - System Namespace
      - File I/O
      - Drawing
      - Printing
    - Common Type System
    - Type Casting
    - Garbage Collection
    - Object Allocation/Deallocation
    - Close/Dispose
    - Developing & Deploying
      - Parameters
      - Fundamentals
      - Variables
      - Constants
      - Structures
    - Program Flow Control
    - If...Then...Else
    - Select Case
    - While Loops
    - For Loops
    - Arrays
    - Declaring an Array
    - Handles Keyword
    - Repeater
  - Developing Web Applications
    - A Simple Web Form
    - Web Form
  - How Web Forms Differ from Windows Forms
    - Why Web Forms Are Better Than Classic ASP
  - How Web Form Controls Differ from Windows Form Controls
    - ASP.NET Server Controls
    - Intrinsic Controls
    - Bound Controls
    - Using the DataGrid Control
    - Customizing DataGrid Control
    - Custom Controls
    - Validation Controls
    - Using the Validation Control
  - Creating Custom Web Form Controls
    - A Simple Custom Control
    - Creating a Composite Custom Control
    - Web Services
    - How Web Services Work
    - Developing Web Services
  - Exercise . Developing Web Services
    - Web Service Utilities
    - Service Description Language
    - Discovery
    - Proxy Class
  - Consuming Web Services from Web Forms
    - Using Windows Forms in Distributed Applications
    - Consuming Web Services
    - Developing a Sample Application
    - Optimizing, Debugging, and Testing

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