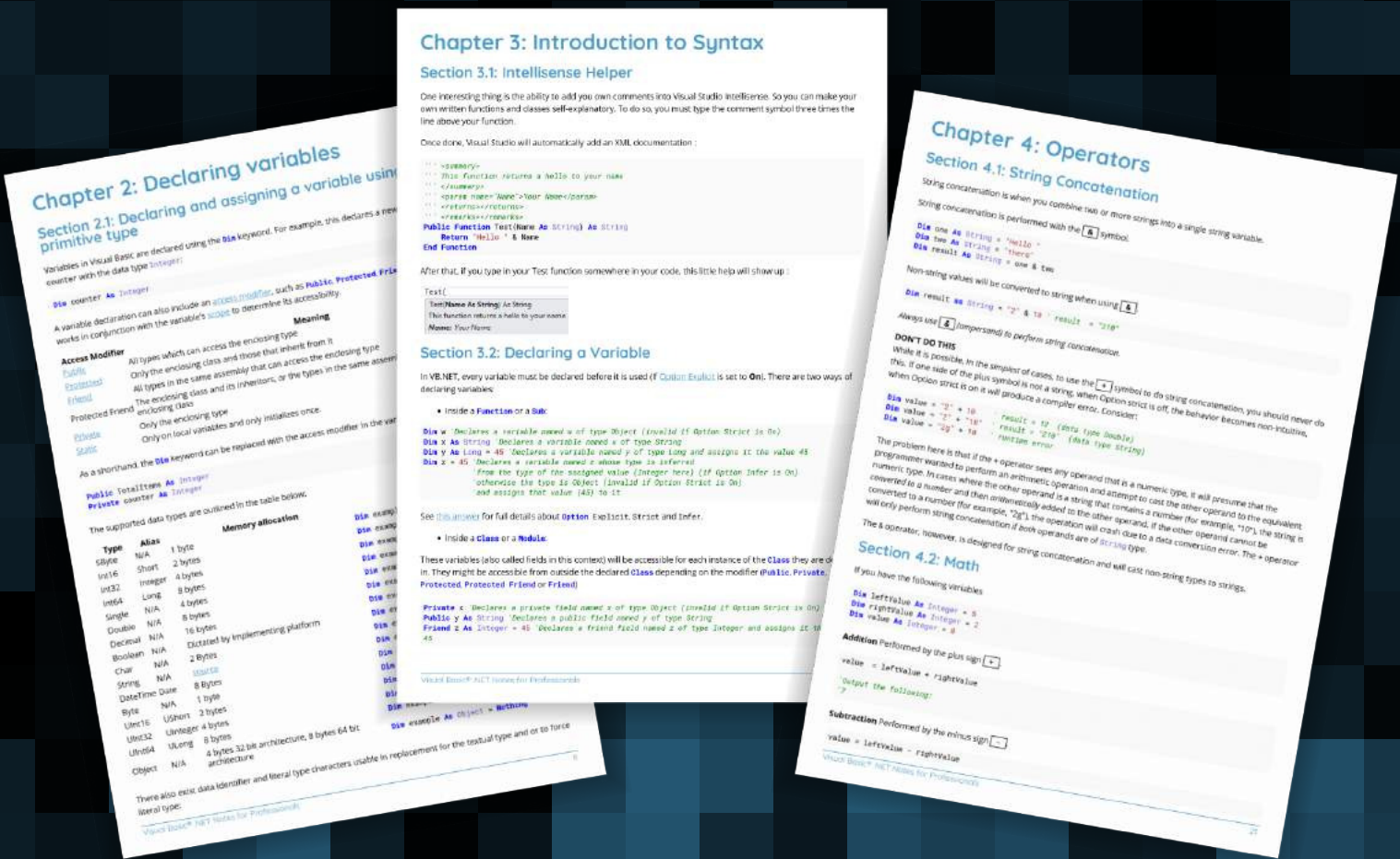


Visual Basic[®].NET

Notes for Professionals



100+ pages
of professional hints and tricks

Contents

About	1
Chapter 1: Getting started with Visual Basic .NET Language	2
Section 1.1: Hello World	2
Section 1.2: Hello World on a Textbox upon Clicking of a Button	2
Section 1.3: Region	3
Section 1.4: Creating a simple Calculator to get familiar with the interface and code	4
Chapter 2: Declaring variables	8
Section 2.1: Declaring and assigning a variable using a primitive type	8
Section 2.2: Levels of declaration – Local and Member variables	10
Section 2.3: Example of Access Modifiers	11
Chapter 3: Introduction to Syntax	14
Section 3.1: Intellisense Helper	14
Section 3.2: Declaring a Variable	14
Section 3.3: Comments	15
Section 3.4: Modifiers	15
Section 3.5: Object Initializers	16
Section 3.6: Collection Initializer	17
Section 3.7: Writing a function	19
Chapter 4: Operators	21
Section 4.1: String Concatenation	21
Section 4.2: Math	21
Section 4.3: Assignment	22
Section 4.4: Comparison	23
Section 4.5: Bitwise	23
Chapter 5: Conditions	25
Section 5.1: If operator	25
Section 5.2: IF...Then...Else	25
Chapter 6: Short-Circuiting Operators (AndAlso - OrElse)	27
Section 6.1: OrElse Usage	27
Section 6.2: AndAlso Usage	27
Section 6.3: Avoiding NullReferenceException	27
Chapter 7: Date	30
Section 7.1: Converting (Parsing) a String to a Date	30
Section 7.2: Converting a Date To A String	30
Chapter 8: Array	31
Section 8.1: Array definition	31
Section 8.2: Null Array Variables	31
Section 8.3: Array initialization	32
Section 8.4: Declare a single-dimension array and set array element values	32
Section 8.5: Jagged Array Initialization	32
Section 8.6: Non-zero lower bounds	32
Section 8.7: Referencing Same Array from Two Variables	33
Section 8.8: Multidimensional Array initialization	33
Chapter 9: Lists	34
Section 9.1: Add items to a List	34
Section 9.2: Check if item exists in a List	34

Section 9.3: Loop through items in list	34
Section 9.4: Create a List	35
Section 9.5: Remove items from a List	36
Section 9.6: Retrieve items from a List	36
Chapter 10: Enum	38
Section 10.1: GetNames()	38
Section 10.2: HasFlag()	38
Section 10.3: Enum definition	39
Section 10.4: Member initialization	39
Section 10.5: The Flags attribute	39
Section 10.6: GetValues()	40
Section 10.7: String parsing	40
Section 10.8: ToString()	41
Section 10.9: Determine whether a Enum has FlagsAttribute specified or not	41
Section 10.10: For-each flag (flag iteration)	42
Section 10.11: Determine the amount of flags in a flag combination	42
Section 10.12: Find the nearest value in a Enum	43
Chapter 11: Dictionaries	45
Section 11.1: Create a dictionary filled with values	45
Section 11.2: Loop through a dictionary and print all entries	45
Section 11.3: Checking for key already in dictionary - data reduction	45
Section 11.4: Getting a dictionary value	46
Chapter 12: Looping	47
Section 12.1: For...Next	47
Section 12.2: For Each...Next loop for looping through collection of items	48
Section 12.3: Short Circuiting	48
Section 12.4: While loop to iterate while some condition is true	50
Section 12.5: Nested Loop	50
Section 12.6: Do...Loop	51
Chapter 13: File Handling	53
Section 13.1: Write Data to a File	53
Section 13.2: Read All Contents of a File	53
Section 13.3: Write Lines Individually to a Text File using StreamWriter	53
Chapter 14: File/Folder Compression	54
Section 14.1: Adding File Compression to your project	54
Section 14.2: Creating zip archive from directory	54
Section 14.3: Extracting zip archive to directory	54
Section 14.4: Create zip archive dynamically	54
Chapter 15: Connection Handling	55
Section 15.1: Public connection property	55
Chapter 16: Data Access	56
Section 16.1: Read field from Database	56
Section 16.2: Simple Function to read from Database and return as DataTable	57
Chapter 17: Type conversion	58
Section 17.1: Converting Text of The Textbox to an Integer	58
Chapter 18: ByVal and ByRef keywords	59
Section 18.1: ByVal keyword	59
Section 18.2: ByVal keyword	59
Chapter 19: Console	61

Section 19.1: Console.ReadLine()	61
Section 19.2: Console.Read()	61
Section 19.3: Console.ReadKey()	61
Section 19.4: Prototype of command line prompt	61
Section 19.5: Console.WriteLine()	62
Chapter 20: Functions	63
Section 20.1: Defining a Function	63
Section 20.2: Defining a Function #2	63
Chapter 21: Recursion	64
Section 21.1: Compute nth Fibonacci number	64
Chapter 22: Random	65
Section 22.1: Declaring an instance	65
Section 22.2: Generate a random number from an instance of Random	65
Chapter 23: Classes	67
Section 23.1: Abstract Classes	67
Section 23.2: Creating classes	67
Chapter 24: Generics	69
Section 24.1: Create a generic class	69
Section 24.2: Instance of a Generic Class	69
Section 24.3: Define a 'generic' class	69
Section 24.4: Use a generic class	69
Section 24.5: Limit the possible types given	70
Section 24.6: Create a new instance of the given type	70
Chapter 25: Disposable objects	71
Section 25.1: Basic concept of IDisposable	71
Section 25.2: Declaring more objects in one Using	71
Chapter 26: NullReferenceException	73
Section 26.1: Empty Return	73
Section 26.2: Uninitialized variable	73
Chapter 27: Using Statement	74
Section 27.1: See examples under Disposable objects	74
Chapter 28: Option Strict	75
Section 28.1: Why Use It?	75
Section 28.2: How to Switch It On	75
Chapter 29: Option Explicit	77
Section 29.1: What is it?	77
Section 29.2: How to switch it on?	77
Chapter 30: Option Infer	78
Section 30.1: How to enable/disable it	78
Section 30.2: What is it?	78
Section 30.3: When to use type inference	79
Chapter 31: Error Handling	81
Section 31.1: Try...Catch...Finally Statement	81
Section 31.2: Creating custom exception and throwing	81
Section 31.3: Try Catch in Database Operation	82
Section 31.4: The Un-catchable Exception	82
Section 31.5: Critical Exceptions	82
Chapter 32: OOP Keywords	84

Section 32.1: Defining a class	84
Section 32.2: Inheritance Modifiers (on classes)	84
Section 32.3: Inheritance Modifiers (on properties and methods)	85
Section 32.4: MyBase	86
Section 32.5: Me vs MyClass	87
Section 32.6: Overloading	88
Section 32.7: Shadows	88
Section 32.8: Interfaces	90
Chapter 33: Extension methods	91
Section 33.1: Creating an extension method	91
Section 33.2: Making the language more functional with extension methods	91
Section 33.3: Getting Assembly Version From Strong Name	91
Section 33.4: Padding Numerics	92
Chapter 34: Reflection	94
Section 34.1: Retrieve Properties for an Instance of a Class	94
Section 34.2: Get a method and invoke it	94
Section 34.3: Create an instance of a generic type	94
Section 34.4: Get the members of a type	94
Chapter 35: Visual Basic 14.0 Features	96
Section 35.1: Null conditional operator	96
Section 35.2: String interpolation	96
Section 35.3: Read-Only Auto-Properties	97
Section 35.4: NameOf operator	97
Section 35.5: Multiline string literals	98
Section 35.6: Partial Modules and Interfaces	98
Section 35.7: Comments after implicit line continuation	99
Section 35.8: #Region directive improvements	99
Chapter 36: LINQ	101
Section 36.1: Selecting from array with simple condition	101
Section 36.2: Mapping array by Select clause	101
Section 36.3: Ordering output	101
Section 36.4: Generating Dictionary From IEnumerable	101
Section 36.5: Projection	102
Section 36.6: Getting distinct values (using the Distinct method)	102
Chapter 37: FTP server	103
Section 37.1: Download file from FTP server	103
Section 37.2: Download file from FTP server when login required	103
Section 37.3: Upload file to FTP server	103
Section 37.4: Upload file to FTP server when login required	103
Chapter 38: Working with Windows Forms	104
Section 38.1: Using the default Form instance	104
Section 38.2: Passing Data From One Form To Another	104
Chapter 39: Google Maps in a Windows Form	106
Section 39.1: How to use a Google Map in a Windows Form	106
Chapter 40: GDI+	115
Section 40.1: Draw Shapes	115
Section 40.2: Fill Shapes	115
Section 40.3: Text	116
Section 40.4: Create Graphic Object	116

[Click here to download full PDF material](#)