**File Process in Visual BASIC**

1. Binary File Processing

* Use *FileStream* as the data type for file variable. A file variable is a representation of a single file in the code. Each file that needs to be processed must has a corresponding file variable.
* Data read from the binary file are stored in an array of *Byte*. A *Byte* data type has the number value of 0 to 255 (please refer to MSDN web site for more information).
* When declaring the array to store data from the binary file, you don’t need to define the size of the array. This is common in Visual BASIC. An array variable without the definition of size is called: Dynamic Array. The size of array will be determined by the VB program.
* Use *Read* subroutine to read data from the file. This function will populate the data to the byte array.

1. Text File Processing

* Use *StreamReader* as the data type for file variable.
* Data read from the text file are stored in a *String* variable.
* Record and fields are predefined. Typically records in a text file are separated by carriage return and line feed. Fields are separated by a predefined delimiter, for example, comma, semi-column, period, etc.
* Use *ReadLine* function to read records. A value of Nothing will be returned if the end of file is reached.
* Use *String.Split* function to separate fields in a single record. This function returns a *String* array.

Example

Option Explicit On

' Library that is required for reading files

Imports System.IO

' Examples on reading files

Module Module1

Sub Main()

' 1. Binary file

' A variable for binary file.

Dim BinaryFile As FileStream

' A variable to store binary data that are read from the file

Dim BinaryData() As Byte = Nothing

' Open binary file

BinaryFile = New FileStream("C:\Mountain.jpeg", FileMode.Open)

' Read binary data

BinaryFile.Read(BinaryData, 0, BinaryFile.Length - 1)

' Close binary file

BinaryFile.Close()

' 2. Text File

' A variable for text file

Dim TextFile As StreamReader

' A variable for each record in the text file

Dim TextRecord As String = ""

' Field list in each record

Dim Fields() As String

' Field variables in each record

Dim Product, Price As String

' Open text file

TextFile = New StreamReader("C:\Product.txt")

' Repeating reads on all records

Do

' Get the record by reading the line

TextRecord = TextFile.ReadLine()

' It will have the value of Nothing if the end of file is reached

If TextRecord IsNot Nothing Then

' Fields are seperated by a comma

Fields = TextRecord.Split(",")

' The first field is Product Number

Product = Fields(0)

' The Second field is Price

Price = Fields(1)

' Output the record

Console.WriteLine("Product Number: " & Product & " Price: " & Price)

End If

Loop Until TextRecord Is Nothing

' Close text file

TextFile.Close()

End Sub

End Module