

COMPUTATIONAL METHODS

Visual Basic Programming – Demonstration Program 8

```
' Console - Demonstrate console application processing text files
'
' Import StreamReader class
Imports System.IO

Module Module1
    ' separators define what is a word
    Dim separators(8) As Char
    '
    ' number of words found so far
    Dim nwords As Integer
    '
    ' Process a file or standard input
    Sub Process(ByRef sr As StreamReader)
        Dim line As String
        Dim words() As String
        While Not sr.EndOfStream
            ' read a line
            line = sr.ReadLine
            ' split into words
            words = line.Split(separators,
System.StringSplitOptions.RemoveEmptyEntries)
            ' count the words
            nwords += words.Length
        End While
    End Sub
    '
    ' Main function processes command-line arguments
    Sub Main(ByVal Args() As String)
        ' initialise number of words found
        nwords = 0
        ' initialise list of separators
        separators(0) = " "
        separators(1) = vbTab           ' i.e. TAB
        separators(2) = vbCr           ' i.e. CARRIAGE RETURN
        separators(3) = vbLf           ' i.e. LINE FEED
        separators(4) = """"
        separators(5) = "."
        separators(6) = ","
        separators(7) = "-"
        ' process command line arguments
        If Args.Length > 0 Then
            ' process each given file in turn
            For i As Integer = 0 To Args.Length - 1
                ' connect a streamreader (hopefully the file exists!)
                Dim sr As StreamReader = New StreamReader(Args(i))
                ' process the contents
                Process(sr)
                ' close the file
                sr.Close()
            Next
        Else
    
```

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        ' connect a streamreader to the standard input
        Dim sr As StreamReader = New
StreamReader(System.Console.OpenStandardInput)
        ' process contents
        Process(sr)
        ' close
        sr.Close()
    End If
    ' report number of words found
    System.Console.WriteLine("Found " & nwords & " words")
    ' and exit
    Environment.Exit(0)
End Sub
End Module

```

```

/cygdrive/c/src/vbasic/ClassDemo/Console/bin/Release
Mark@pc38-61 /cygdrive/c/src/vbasic/ClassDemo/Console/bin/Release
$ ls
Console.exe Console.pdb Console.xml
Mark@pc38-61 /cygdrive/c/src/vbasic/ClassDemo/Console/bin/Release
$ Console
Hello there everyone
^Z
Found 3 words
Mark@pc38-61 /cygdrive/c/src/vbasic/ClassDemo/Console/bin/Release
$ Console Console.xml
Found 14 words
Mark@pc38-61 /cygdrive/c/src/vbasic/ClassDemo/Console/bin/Release
$ Console Console.xml Console.xml
Found 28 words
Mark@pc38-61 /cygdrive/c/src/vbasic/ClassDemo/Console/bin/Release
$

```