

# Visual Basic 程式設計

## 檔案存取

- ◆ 檔案控制項元件
- ◆ File System Objects

# DriveList



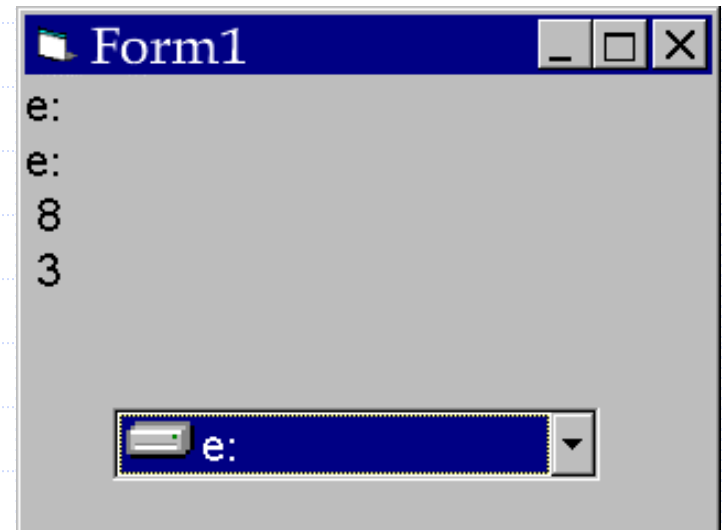
| 屬性        |            |
|-----------|------------|
| Drive     | 目前磁碟機代碼    |
| List      | 可選擇磁碟機     |
| ListCount | 可選擇磁碟機個數   |
| ListIndex | 已選擇的磁碟機的位置 |

| 事件     |            |
|--------|------------|
| Change | 所選擇的磁碟機改變時 |

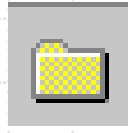
# DriveListBox (cont.)

```
Private Sub Drive1_Change()  
    Print Drive1.Drive  
    Print Drive1.List(Drive1.ListIndex)  
    Print Drive1.ListCount  
    Print Drive1.ListIndex  
End Sub
```

```
Private Sub form_click()  
    Drive1.Drive = "c:"  
End Sub
```



# DirListBox

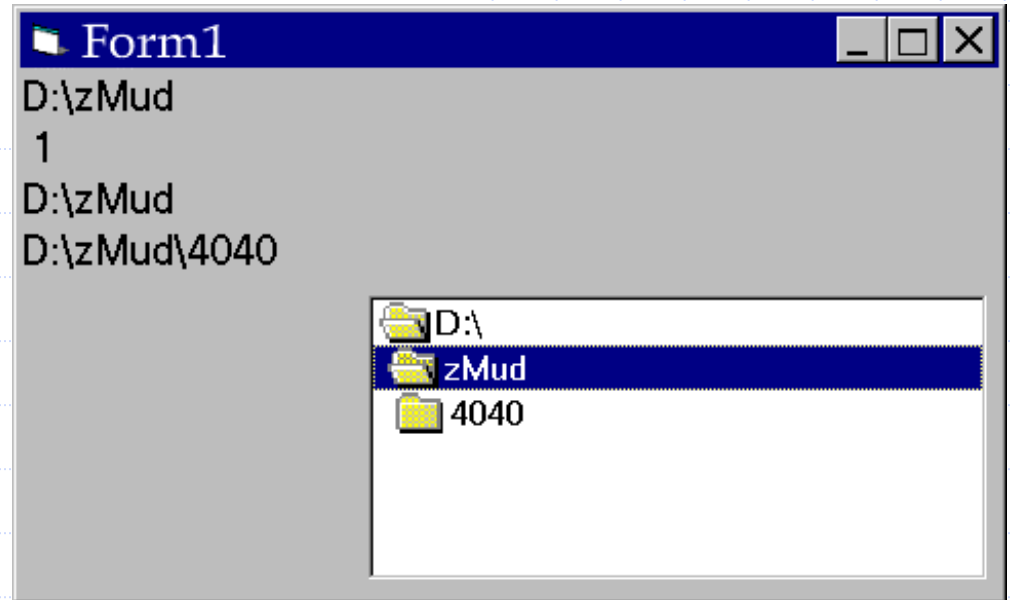


| 屬性        |              |
|-----------|--------------|
| Path      | 目前目錄         |
| List      | 可選擇目錄        |
| ListCount | 目前目錄下可選擇目錄個數 |
| ListIndex | 已選擇目錄的位置     |

| 事件     |           |
|--------|-----------|
| Change | 所選擇的目錄改變時 |

```
Private Sub Dir1_Change()  
    MsgBox (Dir1.Path)  
End Sub
```

```
Private Sub form_click()  
    Cls  
    Print Dir1.Path  
    Print Dir1.ListCount  
    Print Dir1.List(Dir1.ListIndex)  
    Print Dir1.List(0)  
End Sub
```



# FileListBox



| 屬性           |   |
|--------------|---|
| FileName     | 已選擇檔案的檔名                                |
| Path         | 目前目錄                                    |
| List         | 可選擇檔案                                   |
| ListCount    | 目前目錄下可選擇檔案數目                            |
| ListIndex    | 已選擇檔案的位置                                |
| MultiSelect  | 可否重複選擇                                  |
| Selected(數字) | 某個元素是否有被選                               |
| Pattern      | 要顯示的檔案型態(過濾方式)，<br>如：*. * 或 *.txt ..... |

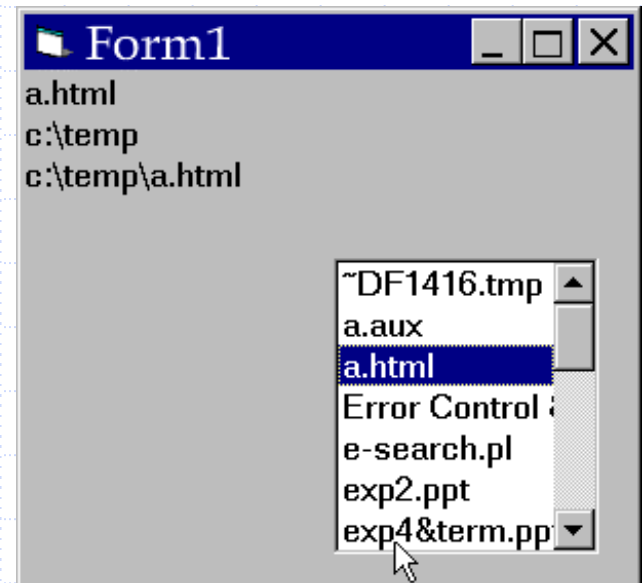
# FileListBox (cont.)

|               |         |
|---------------|---------|
| 事件            |         |
| Click         |         |
| PatternChange |         |
| PathChange    | 目前目錄改變時 |

# FileListBox (cont.)

```
Private Sub File1_Click()  
    Print File1.FileName  
    Print File1.Path  
    Print File1.Path + "\" + File1.FileName  
End Sub
```

```
Private Sub Form_Activate()  
    File1.Path = "c:\temp"  
End Sub
```



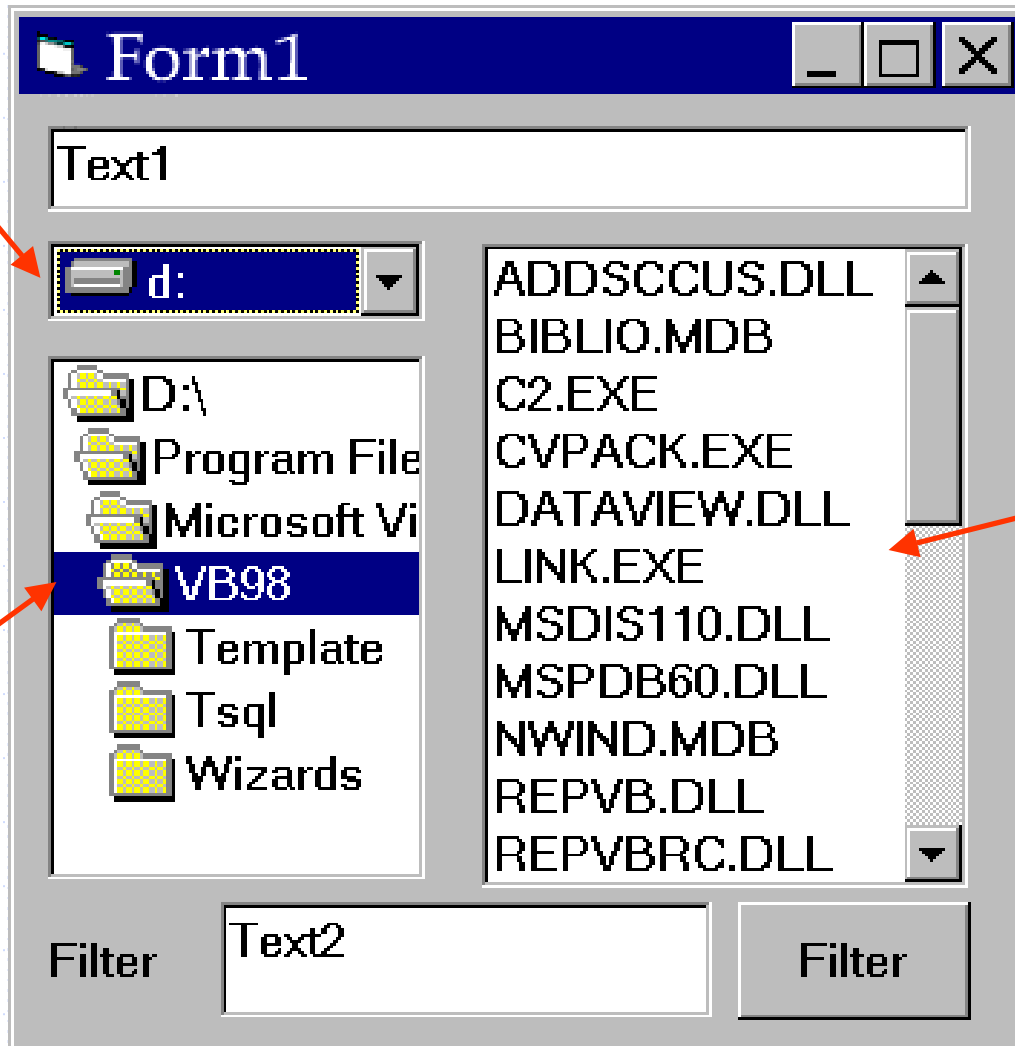


# 整合

DriveList

DirListBox

FileListBox



## 整合 (cont.)

```
Private Sub updatePath()  
    Text1.Text = Dir1.Path + File1.FileName  
End Sub
```

```
Private Sub Command1_Click()  
    File1.Pattern = Text2.Text  
End Sub
```

```
Private Sub Drive1_Change()  
    Dir1.Path = Drive1.Drive  
End Sub
```

## 整合 (cont.)

```
Private Sub Dir1_change()  
    File1.Path = Dir1.Path  
    updatePath  
End Sub
```

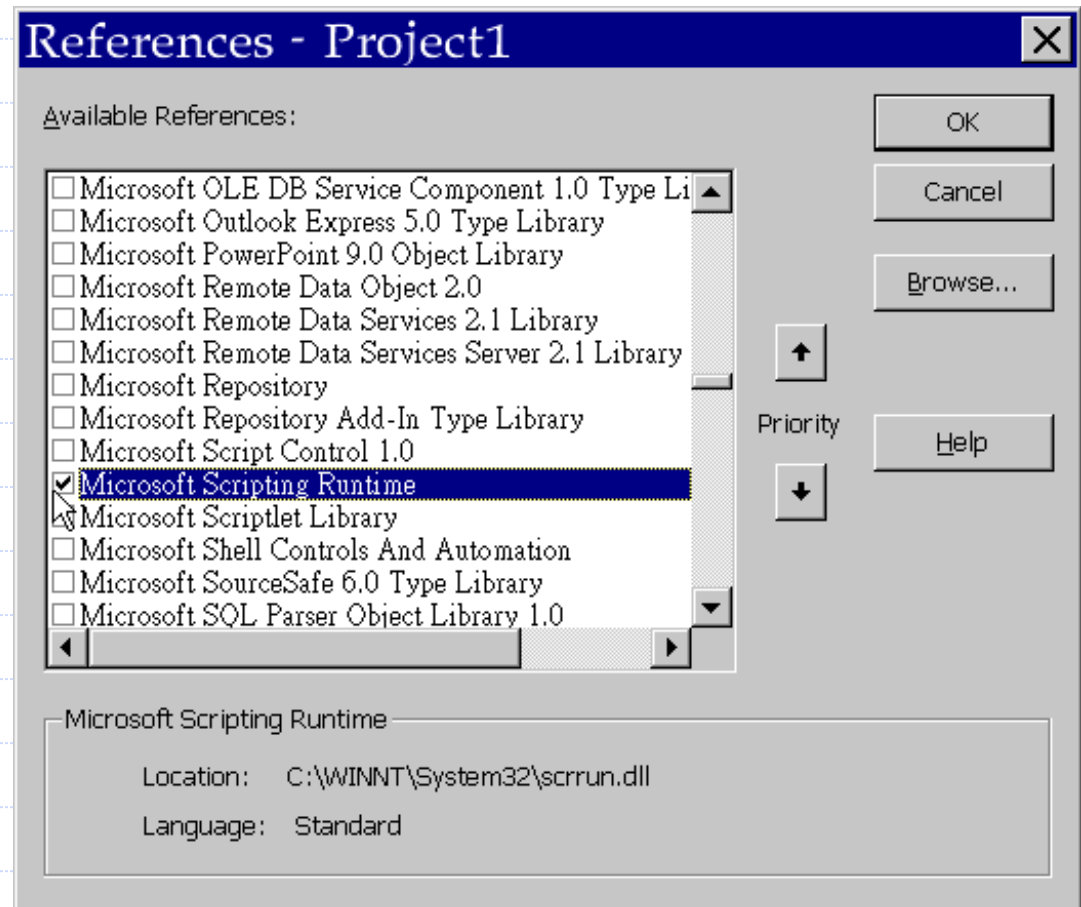
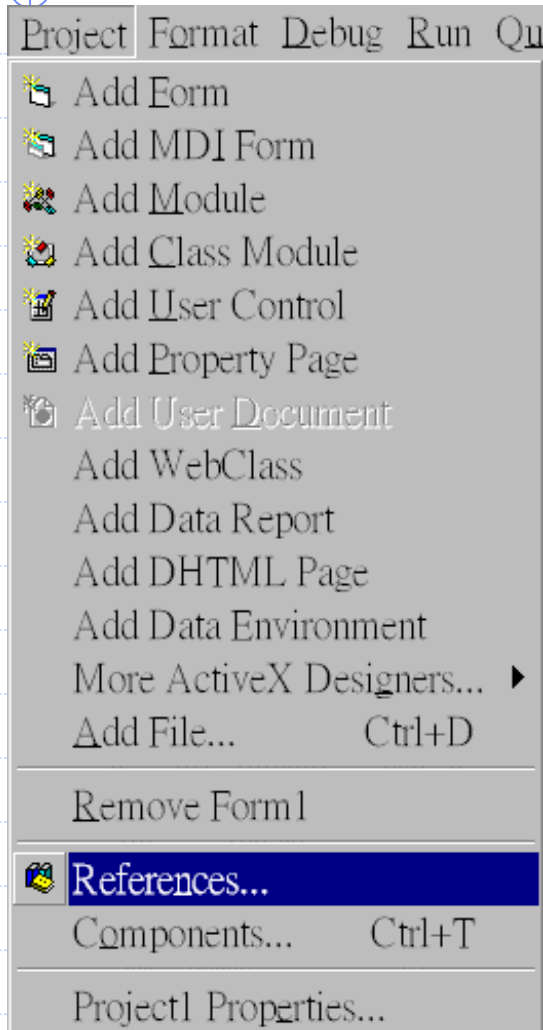
```
Private Sub File1_click()  
    updatePath  
End Sub
```

# Visual Basic 程式設計

## 檔案存取

- ◆ 檔案控制項元件
- ◆ **File System Objects**

# File System Objects



# File System Objects (cont.)

## ◆ File System Objects 共有五種物件

- FileSystemObject
- File
- Folder
- Drive
- TextStream

# FileSystemObject (cont.)

| 屬性     |                                |
|--------|--------------------------------|
| Drives | 傳回目前本機上的磁碟機的 <u>collection</u> |

| 方法             |        |
|----------------|--------|
| CopyFile       | 複製檔案   |
| CopyFolder     | 複製目錄   |
| CreateFolder   | 產生新檔案  |
| CreateTextFile | 產生新文字檔 |
| DeleteFile     | 刪除檔案   |

# FileSystemObject (cont.)

| 方法                  |           |
|---------------------|-----------|
| DeleteFolder        | 刪除目錄      |
| DriveExists         | 回傳磁碟機是否存在 |
| FileExists          | 回傳檔案是否存在  |
| FolderExists        | 回傳目錄是否存在  |
| GetAbsolutePathName | 取得絕對路徑名   |
| GetDrive            | 取得Drive物件 |
| GetDriveName        | 取得磁碟機名    |
| GetFile             | 取得File物件  |



# FileSystemObject (cont.)

| 方法                  |            |
|---------------------|------------|
| GetFileName         | 取得檔案名      |
| GetFolder           | 取得Folder物件 |
| GetParentFolderName | 取得父目錄名     |
| GetTempName         | 取得暫存檔檔名    |
| MoveFile            | 搬移檔案       |
| MoveFolder          | 搬移目錄       |
| OpenTextFile        | 開啟文字檔      |

# FileSystemObject (cont.)

## ◆ 產生新的FileSystemObject

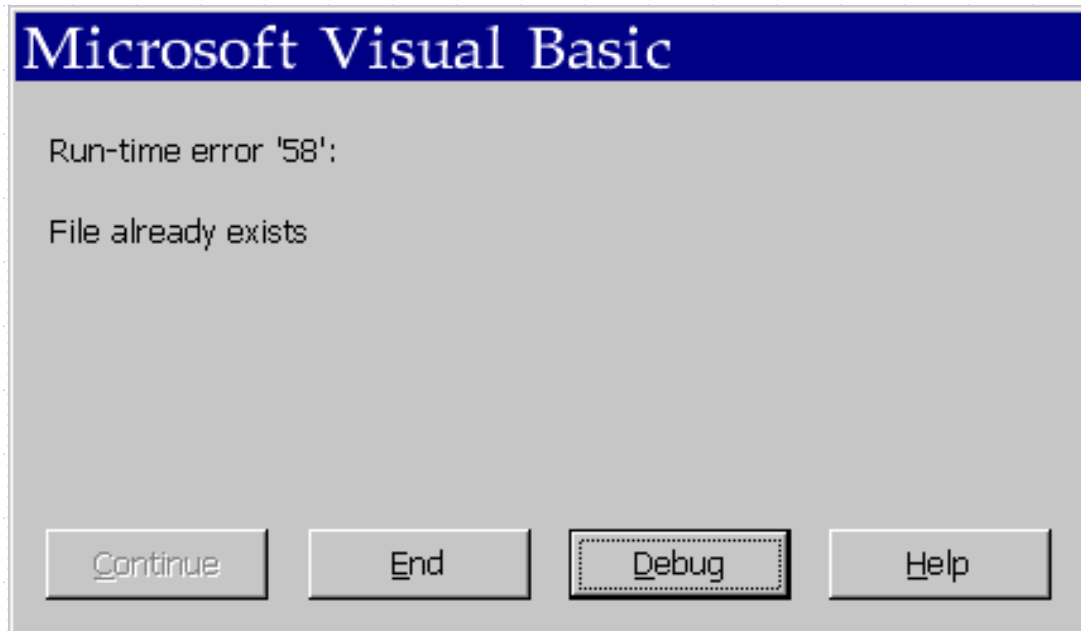
- Dim 變數名 As New FileSystemObject
- Drive, Folder, File, TextStream亦同

## ◆ CopyFile 來源, 目的[, 覆蓋模式]

- 來源、目的: 字串
- 覆蓋模式: boolean, 預設值為true
- 來源、目的可用\*與?

# FileSystemObject (cont.)

```
Private Sub form_click()  
    Dim fs As New FileSystemObject  
    fs.CopyFile "c:\autoexec.bat", "c:\test", _  
                False  
End Sub
```



# FileSystemObject (cont.)

## ◆ CopyFolder 來源, 目的[, 覆蓋模式]

- 將來源目錄下所有的檔案、目錄，複製到目的目錄
- CopyFolder "c:\temp", "c:\tmp"
- 將來源目錄下某些目錄複製到目的目錄
- Copy Folder "c:\temp\a\*", "c:\tmp"

# FileSystemObject (cont.)

## ◆ CreateFolder 目錄名

- 產生新目錄
- 若目錄已存在，則發生錯誤

## ◆ CreateTextFile 檔名[, 覆蓋模式]

- 產生新檔案
- 傳回TextStream

```
Private Sub form_click()  
    Dim fs As New FileSystemObject  
    fs.CreateFolder "c:\a"  
    fs.CreateTextFile "c:\a\test"  
End Sub
```

# FileSystemObject (cont.)

## ◆ DeleteFile 檔名 [, force]

- 檔名可包含\*與?
- 若force=false, 則無法刪除屬性是read only的檔案

## ◆ DeleteFolder 目錄名 [, force]

- 目錄名可包含\*與?
- 若force=false, 則無法刪除屬性是read only的目錄
- 即使目錄內有檔案也會刪除

# FileSystemObject (cont.)

```
Private Sub Command1_Click()  
    Dim fs As New FileSystemObject  
    fs.DeleteFile File1.Path + "\" + _  
        File1.FileName
```

**File1.Refresh**

```
End Sub
```

```
Private Sub Dir1_Change()
```

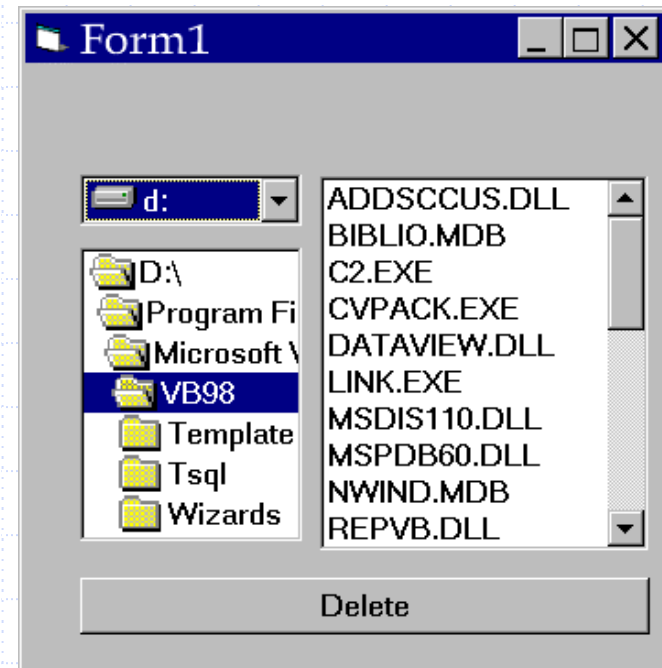
```
    File1.Path = Dir1.Path
```

```
End Sub
```

```
Private Sub Drive1_Change()
```

```
    Dir1.Path = Drive1.Drive
```

```
End Sub
```



# FileSystemObject (cont.)

## ◆ DriveExists 磁碟機名

- 檢查該磁碟機是否存在
- DriveExists "c:"
- 若CDROM沒有光碟片，也會回傳true。要用Drive物件的IsReady來偵測

## ◆ FileExists 檔案名

## ◆ FolderExists 目錄名



# FileSystemObject (cont.)

## ◆ GetAbsolutePathName 路徑名

| 目錄名            | 回傳值                                     |
|----------------|---|
| "c:"           | "c:\mydocuments\reports"                |
| "c:.."         | "c:\mydocuments\"                       |
| "c:*. *\may97" | "c:\mydocuments\reports\*. *\may<br>97" |
| "region1"      | "c:\mydocuments\reports\region1"        |

# FileSystemObject (cont.)

◆ GetDrive 磁碟機名

- 回傳Drive物件

◆ GetDriveName 磁碟機名

◆ GetFile 檔案名

回傳File物件

◆ GetFileName 路徑名

# FileSystemObject (cont.)

## ◆ GetFolder 目錄名

- 回傳Folder物件

## ◆ GetParentFolderName 路徑名

- GetParentFolderName("c:\a\b\c") → "c:\a\b"

## ◆ GetTempName

## ◆ MoveFile 來源, 目的

## ◆ MoveFolder 來源, 目的

# FileSystemObject (cont.)

◆ OpenTextFile 檔名[, IO模式[,create]]

- IO模式

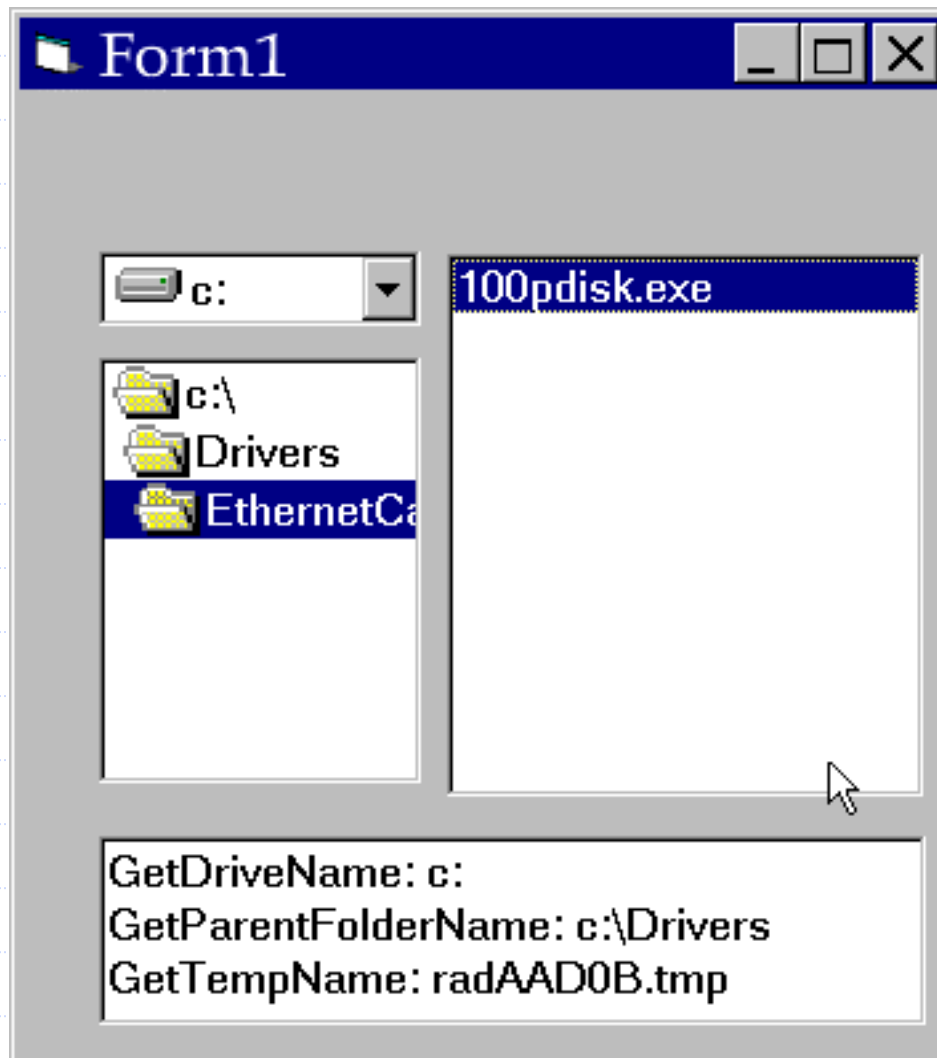
  - ◆ ForReading

  - ◆ ForAppending

- Create: 若檔案不存在，是否開新檔案

- 傳回TextStream

# FileSystemObject (cont.)



```
Private Sub Dir1_Change()  
    File1.Path = Dir1.Path  
End Sub
```

```
Private Sub Drive1_Change()  
    Dir1.Path = Drive1.Drive  
End Sub
```

```
Private Sub File1_Click()  
    Dim fs As New FileSystemObject  
    Text1.Text = "GetDriveName: " + _  
                fs.GetDriveName(File1.Path) + _  
                + vbNewLine + _  
                "GetParentFolderName: " + _  
                fs.GetParentFolderName(File1.Path) + _  
                + vbNewLine + _  
                "GetTempName: " + fs.GetTempName()  
End Sub
```

# Drive

|                |               |
|----------------|---------------|
| AvailableSpace | 可用空間大小(bytes) |
| DriveLetter    | 磁碟機代碼         |
| DriveType      | 磁碟機型別         |
| FileSystem     | 檔案系統          |
| FreeSpace      | 剩餘空間大小(bytes) |
| IsReady        |               |
| TotalSize      | 總體空間大小(bytes) |

# Drive (cont.)

## ◆ DriveType

- 0:Unknown(未知)
- 1:Removable(磁片.....)
- 2:Fixed(硬碟.....)
- 3:Network(網路磁碟機)
- 4:CD-ROM
- 5:RAM-DISK



# Drive (cont.)

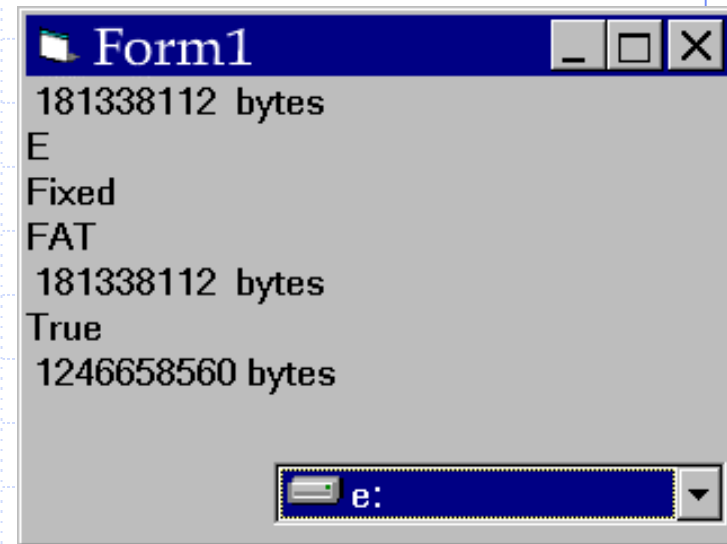


程式還沒完

```
Private Sub Drive1_Change()  
    Dim fs As New FileSystemObject  
    Dim drv As Drive  
    Set drv = fs.GetDrive( _  
        Mid(Drive1.Drive, 1, 2))  
  
    Cls  
    If (Not drv.IsReady) Then  
        MsgBox "Drive is not ready"  
        Exit Sub  
    End If  
    Print drv.AvailableSpace; " bytes"  
    Print drv.DriveLetter
```

# Drive (cont.)

```
Select Case drv.DriveType
  Case 0: Print "Unknown"
  Case 1: Print "Removable"
  Case 2: Print "Fixed"
  Case 3: Print "Network"
  Case 4: Print "CD-ROM"
  Case 5: Print "RAM Disk"
End Select
Print drv.FileSystem
Print drv.FreeSpace; " bytes"
Print drv.IsReady
Print drv.TotalSize; "bytes"
End Sub
```



# File

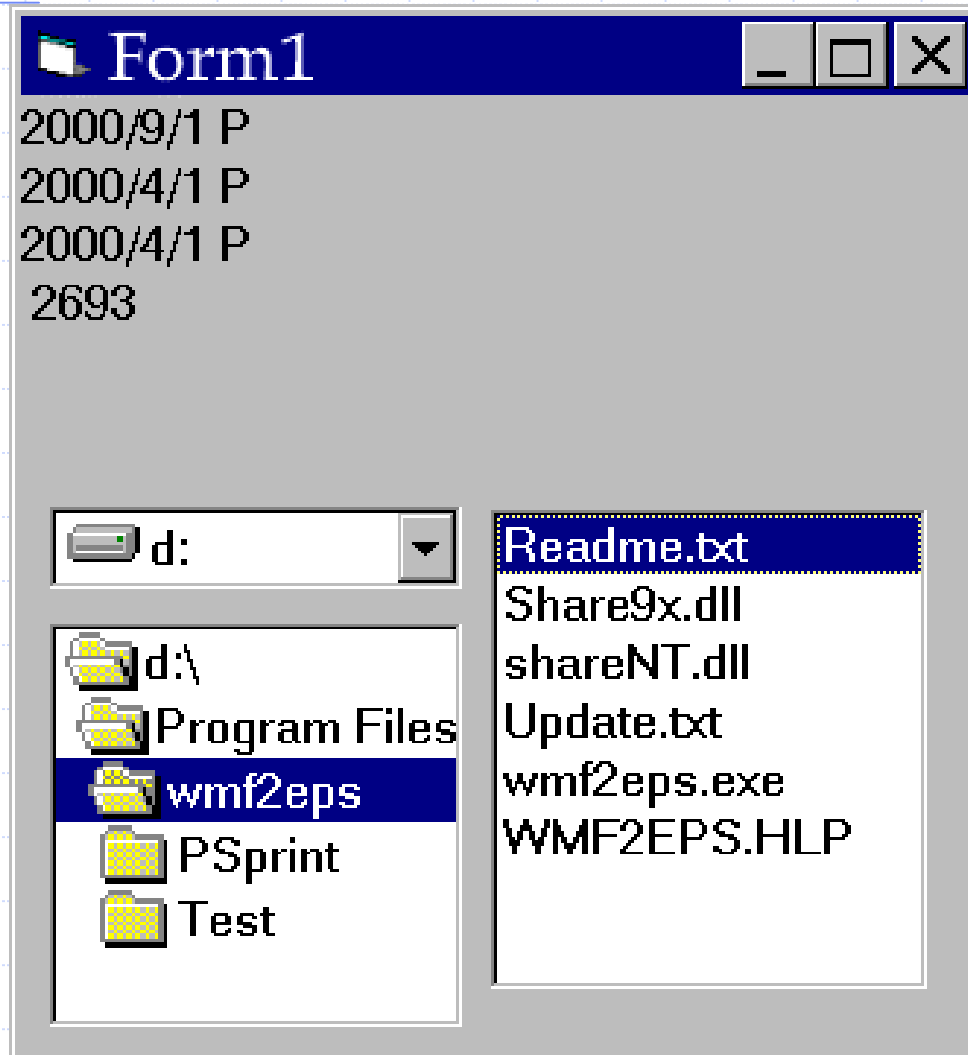
|                  |            |
|------------------|------------|
| DateCreate       | 檔案產生日期     |
| DateLastAccessed | 最近被讀取/更改日期 |
| DateLastModified | 最近被更改日期    |
| Drive            | 所在磁碟機      |
| Size             | 檔案大小       |
| Path             | 路徑名        |
| Name             | 檔名         |

|                  |      |
|------------------|------|
| 方法               |      |
| OpenAsTextStream | 開啟檔案 |

# Folder

|                  |            |
|------------------|------------|
| DateCreate       | 檔案產生日期     |
| DateLastAccessed | 最近被讀取/更改日期 |
| DateLastModified | 最近被更改日期    |
| Drive            | 所在磁碟機      |
| Size             | 檔案大小       |
| Path             | 路徑名        |
| Name             | 檔名         |

# File and Folder



# File and Folder (cont.)

```
Dim fs As New FileSystemObject
Private Sub Drive1_Change()
    Dim drv As Drive
    Set drv = fs.GetDrive(Drive1.Drive)
    If (Not drv.IsReady) Then
        MsgBox "Drive is not ready!"
        Dir1.Enabled = False
        File1.Enabled = False
        Exit Sub
    End If
    Dir1.Enabled = True
    File1.Enabled = True
    Dir1.Path = Drive1.Drive
End Sub
```



程式還沒完

# File and Folder (cont.)

```
Private Sub dir1_change()  
    Dim dir As Folder  
    File1.Path = Dir1.Path  
    Cls  
    Set dir = fs.GetFolder(Dir1.Path)  
    Print dir.DateCreated  
    Print dir.DateLastAccessed  
    Print dir.DateLastModified  
    Print dir.Size  
End Sub  
Private Sub file1_click()  
    Dim fl As file  
    Cls  
    Set fl = fs.GetFile(File1.Path + "\" + _  
                        File1.FileName)  
  
    Print fl.DateCreated  
    Print fl.DateLastAccessed  
    Print fl.DateLastModified  
    Print fl.Size  
End Sub
```

# TextStream (循序檔)

## ◆ 產生方法

- [File].OpenAsTextStream
- [FileSystemObject].OpenTextFile

| 屬性            |           |
|---------------|-----------|
| AtEndOfLine   | 傳回是否在最後一行 |
| AtEndOfStream | 傳回是否在檔尾   |
| Column        | 目前位置      |
| Line          | 目前在第幾行    |



# TextStream (cont.)

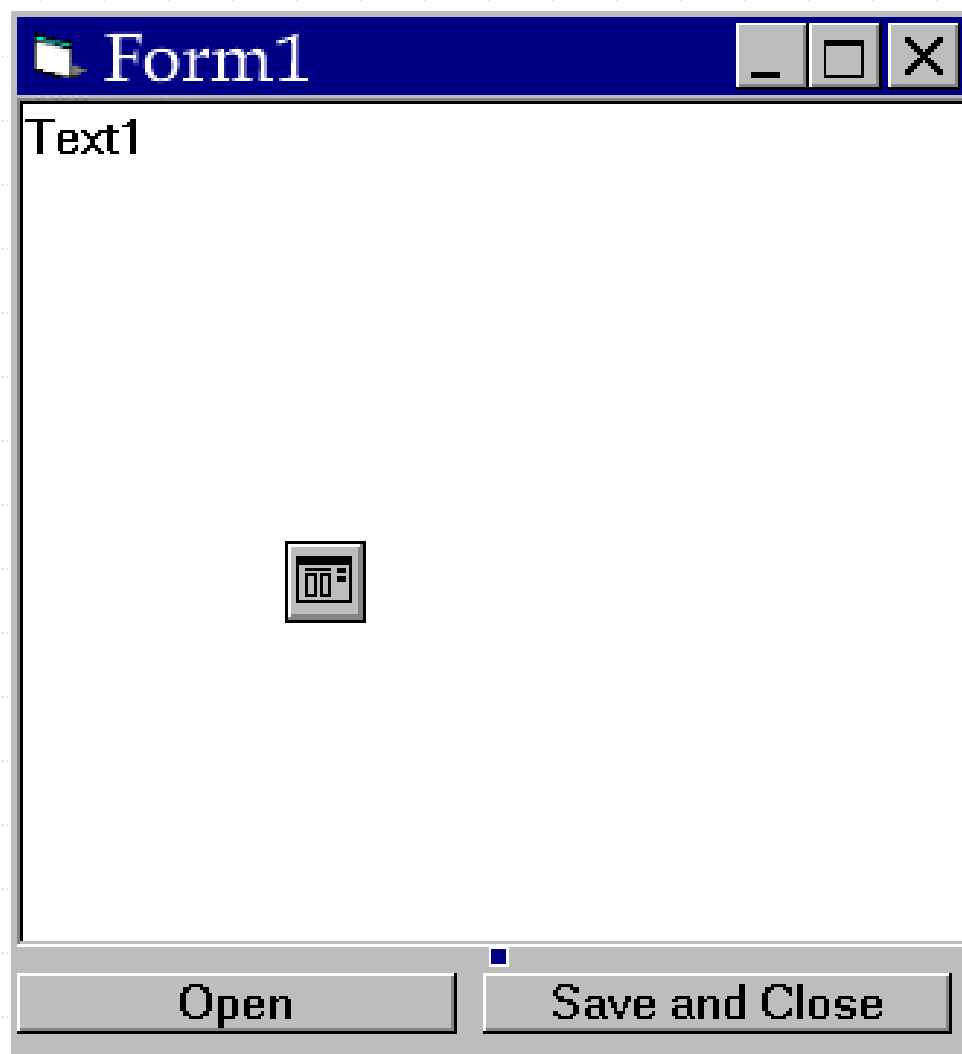
| 方法              |                    |
|-----------------|--------------------|
| Close           | 關閉檔案               |
| Read            | 讀取某數量的字元(傳回String) |
| ReadAll         | 讀取全部內容(傳回String)   |
| ReadLine        | 讀一行                |
| Skip            | 跳過某數量的字元           |
| SkipLine        | 跳過幾行               |
| Write           | 寫入一個String         |
| WriteBlankLines | 寫入幾個空白行            |
| WriteLine       | 寫入一行               |

# TextStream (cont.)



```
Private Sub Command1_Click()  
    Dim fs As New FileSystemObject  
    Dim st As TextStream  
    If (Not fs.FileExists(Text1.Text)) Then  
        MsgBox "File does not exist!!"  
        Exit Sub  
    End If  
    Set st = fs.OpenTextFile(Text1.Text, _  
        ForReading)  
    MsgBox st.Read(2), , "Read"  
    MsgBox st.ReadLine, , "ReadLine"  
    MsgBox st.ReadAll, , "ReadAll"  
End Sub
```

# 小小編輯器



# 小小編輯器 (cont.)

```
Dim fileName As String
Dim fs As New FileSystemObject
Private Sub readfile()
    Dim st As TextStream
    Set st = fs.OpenTextFile(fileName, ForReading)
    Text1.Text = st.ReadAll()
End Sub
Private Sub writeFile()
    Dim st As TextStream
    fs.DeleteFile (fileName)
    Set st = fs.OpenTextFile(fileName, _
        ForAppending, True)
    st.WriteLine (Text1.Text)
End Sub
```



程式還沒完

# 小小編輯器 (cont.)

```
Private Sub Command1_Click()  
    CommonDialog1.Filter = "文字檔 (*.txt) | *.txt"  
    CommonDialog1.ShowOpen  
    fileName = CommonDialog1.fileName  
    If (fileName = "") Then  
        Exit Sub  
    End If  
    readfile  
    Text1.Enabled = True  
    Command1.Enabled = False  
    Command2.Enabled = True  
End Sub  
Private Sub Command2_Click()  
    writefile  
    Text1.Text = ""  
    tetx1.Enabled = False  
    Command1.Enabled = True  
    Command2.Enabled = False  
End Sub
```