Object REXX for Windows News

Windows Scripting and GUI Extensions

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OLE/COM/ActiveX Class (I)

- **Access scriptable applications from REXX:**
  - **MS Office products**
  - **Internet Explorer**
  - **Lotus Smartsuite products**
  - **Lotus Notes, etc.**
- **Automate activities in these applications:**
  - **Create and print customized letters**
  - **Update spreadsheets with statistics**
  - **Demo mode for Internet Explorer**

OLE/COM/ActiveX Class (2)

- OLE objects can be created by their CLSID or ProgId
- All parameter types supported that can be converted to strings
- OLE arrays are converted into REXX .Array class objects in both directions
- Do..Over support for OLE collection types

OLE/COM/ActiveX Samples (1)

- **Requires MS Common Dialogs Control**

  (ships with MS development tools, such as Visual Studio, Visual C++, Visual Basic)

- **Show File Open Dialog:**

```
ComDlg = .OLEObject~New("MSComDlg.CommonDialog")
ComDlg~MaxFileSize = 256
ComDlg~InitDir = Directory()
ComDlg~Filter = "REXX Files|*.REX|REXX Class Definitions|*.CLS|Resource Scripts|*.RC"
ComDlg~ShowOpen
Say "Selected Filename:" ComDlg~FileName
::REQUIRES OREXXOLE.CLS
```

- **Show Font Selection Dialog:**

```
ComDlg = .OLEObject~New("MSComDlg.CommonDialog")
ComDlg~Flags = 1 /* cdlCFScreenFonts */
ComDlg~ShowFont
Say "Selected Font:" ComDlg~FontName || "." || ComDlg~FontSize
::REQUIRES OREXXOLE.CLS
```

OLE/COM/ActiveX Samples (2)

- **Show Color Selection Dialog:**

```
/* COLORDLG.REX - Use Common Dialogs */
ComDlg = .OLEObject~New("MSComDlg.CommonDialog")
ComDlg~Filter = 1 /* cdlCCRGBInit */
ComDlg~ShowColor
RGB = ComDlg~Color~D2X~Right(6, "0")
Red = RGB~SubStr(5, 2)~X2D
Green = RGB~SubStr(3, 2)~X2D
Blue = RGB~SubStr(1, 2)~X2D
Say "Selected Color: Red =" Red "Green =" Green "Blue =" Blue

::REQUIRES OREXXOLE.CLS
```

OLE/COM/ActiveX Samples (3)

- **Display a list of URLs in sequence:**

```
/* set the list of URLs to display */
URLs = .List~Of("http://www.software.ibm.com/ad/obj-rexx/", "http://www2.hursley.ibm.com/rexx")

/* create an object for Internet Explorer and tailor its appearance */
Explorer = .OLEObject~New("InternetExplorer.Application")
Explorer~TheaterMode = .True          /* show document area only */
Explorer~ToolBar = .False             /* don't show tool bar     */
Explorer~Visible = .True              /* show Internet Explorer  */

/* now loop through the URLs and display them */
Do Forever
  Do URL Over URLs
    Explorer~Navigate(URL)
    Call SysSleep 20
  End
End

::REQUIRES OREXXOLE.CLS
```

OLE/COM/ActiveX Samples (4)

- **Open Word with a document:**

```
/* Create a new Word document and insert some text */
WordApp = .OLEObject~New("Word.Application")
WordDocs = WordApp~Documents
NewDocument = WordDocs~Add

/* Enter some text into first paragraph */
myRange = NewDocument~Paragraphs(1)~Range
myRange~Font~Name = "Brush Script"
myRange~Font~Size = "24"
myRange~InsertAfter("Hello from REXX!")
myRange~Words(3)~Bold = .True /* set the last word to bold */

/* Add a second paragraph with different attributes */
NewDocument~Paragraphs~Add
myRange = NewDocument~Paragraphs(2)~Range
myRange~Font~Name = "Arial"
myRange~Font~Size = "12"
myRange~Bold = .False
myRange~Italic = .False
myRange~InsertAfter("Greetings from the SHARE Technical Conference in SFO. ")
myRange~InsertAfter("This document was created on: ")
myRange~Collapse(0) /* unselect range, go to end (wdCollapseEnd=0) */
myRange~InsertDateTime("MMMM dd, yyyy at HH:mm:ss")
```

OLE/COM/ActiveX Samples (5)

- **Save and print a Word document:**

```
/* continued from previous page */

/* Save and print document */
NewDocument~SaveAs("D:\Test.doc")
NewDocument~PrintOut
WordApp~Quit /* quit word */

::REQUIRES OREXXOLE.CLS
```

New OODIALOG Features

- New Win32 Controls supported:
    - List View (list, report, icon, small icon view)
    - Tree View
    - Tab View (notebook)
    - Progress Bar
    - Slider
- Resource Workshop & Template Generator extended for new controls
    - Workshop shows only outlines for new controls - still 16 bit application :-(

OODIALOG - List View (1)

- Four different views available:
  - List view (small icon and item name)
  - Report view (small icon and full item details)
  - Icon view (large icon and item name)
  - Small icon view (small icon and item name)
  - Views can be switched on the fly
- Set icons for items in list (small & large)
- Insert/delete items in list
- Query all items in list

OODIALOG - List View (2)

- Insert/modify columns
- Get notifications for:
  - direct edit
  - activation (double click)
  - drag & drop
  - column click
  - key pressed

OODIALOG List View - Code Samples (1)

- **Activate notifications:**

```
/* connect notifications in INIT method */
self~ConnectListNotify("IDC_LIST","Activate","OnActivate_IDC_LIST")

/* Method OnActivate_IDC_LIST handles notification 'Activate' for item IDC_LIST */
::METHOD OnActivate_IDC_LIST
  Expose curList
  info. = curList~ItemInfo(curList~Selected)
  If info.!Image = 0 Then Do
    /* change to the selected directory */
    curDir = self~GetValue("IDC_DIRECTORY")
    If curDir~Right(1) = "\" Then curDir = curDir~Left(curDir~Length - 1)

    If info.!Text = ".." Then
      newDir = curDir~Left(curDir~LastPos("\") - 1) || "\"   /* remove one directory from current path */
    Else
      newDir = curDir || "\" || info.!Text || "\"

    self~SetValue("IDC_DIRECTORY", newDir)
    self~IDC_REFRESH
  End
```

OODIALOG List View - Code Samples (2)

- **Setup report view and associated icons:**

```
::METHOD InitDialog
  Expose curList
  InitDlgRet = self~InitDialog:super

  /* Set image list for List control IDC_LIST */
  curList = self~GetListControl("IDC_LIST")
  curList~SetSmallImages("ListSml.bmp",17,17)
  curList~SetImages("ListIco.bmp",34,34)

  /* Add items (and columns) to the list control here using Add or AddRow (and InsertColumn) */
  curList~InsertColumn(0, "Filename", 50)
  curList~InsertColumn(1, "Size", 25, "RIGHT")
  curList~InsertColumn(2, "Date", 35)
  curList~InsertColumn(3, "Time", 30)
  curList~InsertColumn(4, "Attribs", 25)

  /* Initialization Code (e.g. fill list and combo boxes) */
  Return InitDlgRet
```

OODIALOG List View - Code Samples (3)

- **Delete and insert items:**

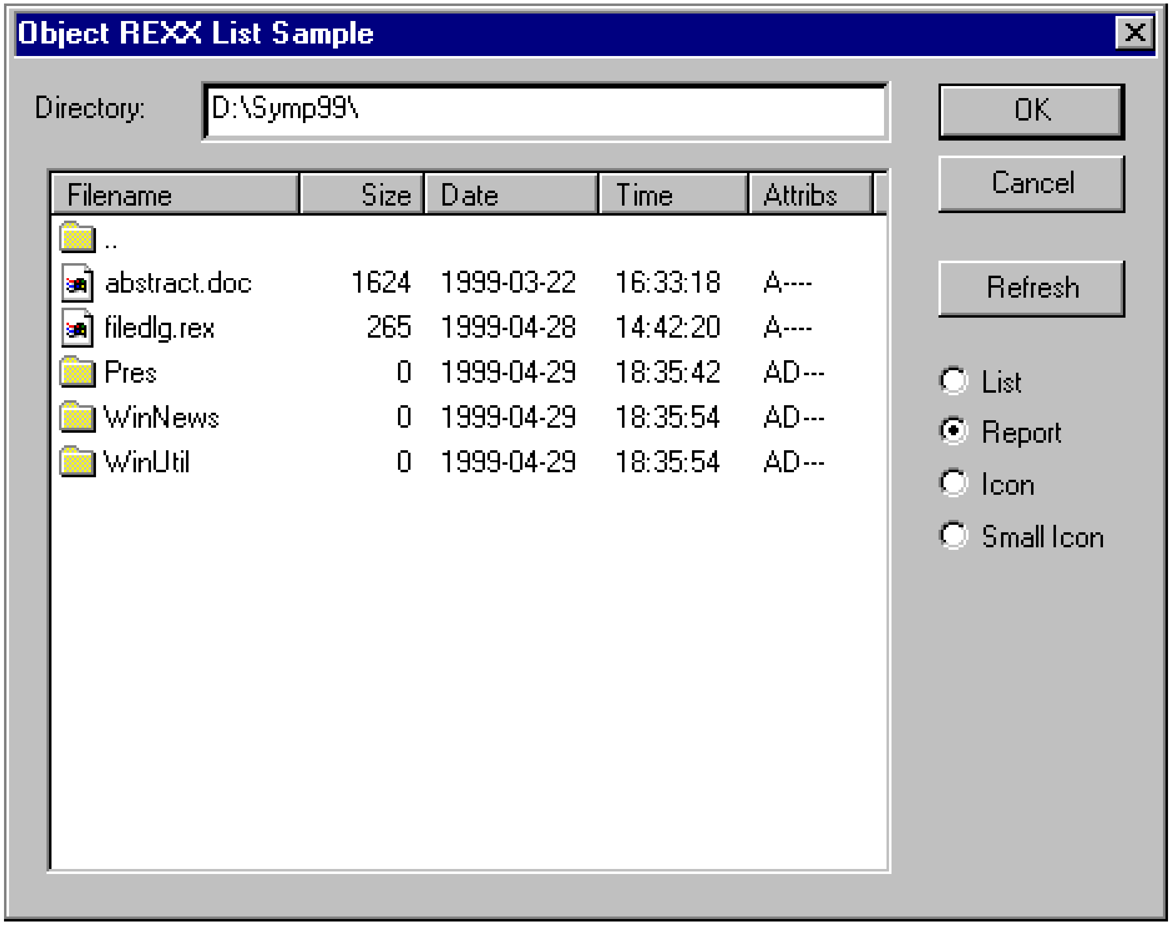
```
::METHOD IDC_REFRESH /* Method IDC_REFRESH is connected to item IDC_REFRESH */
  Expose curList
  curList~DeleteAll
  /* get a list of all files in specified directory */
  curDir = self~GetValue("IDC_DIRECTORY")
  If curDir~Right(1) \= "\" Then curDir = curDir || "\"
  If curDir~Length > 3 Then curList~AddRow(,0, "..")
  pattern = curDir || "*"
  Call SysFileTree pattern, "Files.", "BL"
  Do i = 1 To Files.0
    FileName = Files.i~SubStr(Files.i~WordIndex(5))
    FileName = FileSpec("NAME", FileName)
    FileSize = Files.i~Word(3)
    FileDate = Files.i~Word(1)
    FileTime = Files.i~Word(2)
    FileAttribs = Files.i~Word(4)
    If FileAttribs~Pos("D") \= 0 Then FileIcon = 0
    Else FileIcon = 1
    curList~AddRow(,FileIcon, FileName, FileSize, FileDate, FileTime, FileAttribs)
  End
```

OODIALOG List View - Code Samples (4)

- **Switch between views:**

```
::METHOD ShowList  /* Method ShowList is connected to item IDC_RADIOLIST */
  Expose curList curStyle
  curList~ReplaceStyle(curStyle, "LIST")
  curStyle = "LIST"

::METHOD ShowReport  /* Method ShowReport is connected to item IDC_RADIOREPORT */
  Expose curList curStyle
  curList~ReplaceStyle(curStyle, "REPORT")
  curStyle = "REPORT"

::METHOD ShowIcon  /* Method ShowIcon is connected to item IDC_RADIOICON */
  Expose curList curStyle
  curList~ReplaceStyle(curStyle, "ICON")
  curStyle = "ICON"

::METHOD ShowSmallIcon  /* Method ShowSmallIcon is connected to item IDC_RADIOSMLICON */
  Expose curList curStyle
  curList~ReplaceStyle(curStyle, "SMALLICON")
  curStyle = "SMALLICON"
```

OODIALOG List View - Sample Dialog



Directory: D:\Symp99\

Filename	Size	Date	Time	Attribs
..				
abstract.doc	1624	1999-03-22	16:33:18	A----
filedlg.rex	265	1999-04-28	14:42:20	A----
Pres	0	1999-04-29	18:35:42	AD---
WinNews	0	1999-04-29	18:35:54	AD---
WinUtil	0	1999-04-29	18:35:54	AD---

○ List
● Report
○ Icon
○ Small Icon

OODIALOG - Tree View

- Set icons for items in tree
- Expand/collapse full tree or parts of it
- Insert/delete/move/sort items
- Query all items in tree
- Get notifications for:
    - direct edit
    - drag & drop
    - selection
    - key pressed

OODIALOG Tree View - Code Samples (1)

- **Activate notifications:**

```
/* connect notifications in INIT method */
self~ConnectTreeNotify("IDC_TREE","SelChanged","OnSelChanged_IDC_TREE")
self~ConnectTreeNotify("IDC_TREE","KeyDown","OnKeyDown_IDC_TREE")

/* Method OnSelChanged_IDC_TREE handles notification 'SelChanged' for item IDC_TREE */
::METHOD OnSelChanged_IDC_TREE
  Expose curTree selItem
  curTree~Modify(selItem,,,,"NOTBOLD")
  selItem = curTree~Selected
  curTree~Modify(selItem,,,,"BOLD")

/* Method OnKeyDown_IDC_TREE handles notification 'KeyDown' for item IDC_TREE */
::METHOD OnKeyDown_IDC_TREE
  Expose curTree selItem
  Use Arg treeId, Key

  /* if DELETE key is pressed delete the selected item */
  If self~KeyName(Key) = "DELETE" Then
    self~IDC_DELETE
```

OODIALOG Tree View - Code Samples (2)

- **Insert new items (a folder in this sample):**

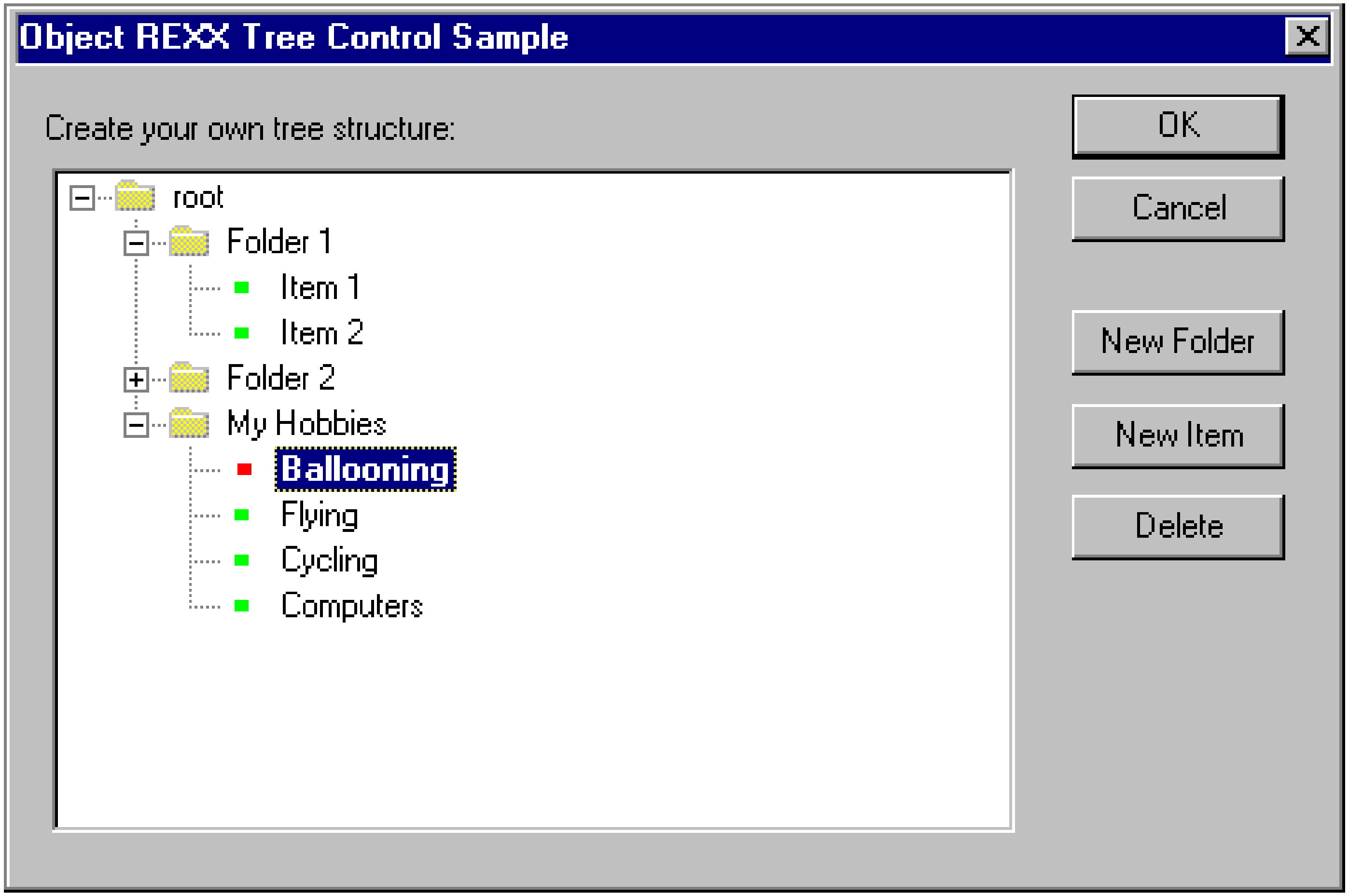
```
/* Method IDC_NEWFOLDER is connected to item IDC_NEWFOLDER */
::METHOD IDC_NEWFOLDER
 Expose curTree selItem

 /* get new folder name */
 Input = .InputBox~New("Enter new folder name:", "Folder Name")
 newFldr = Input~Execute
 If newFldr \= "" Then Do
  /* look at selected item */
  info. = curTree~ItemInfo(selItem)
  If info.!Image = 0 Then
   /* this is a folder, create new folder as a child */
   newPos = selItem
  Else
   /* this is an itme, create new folder as a sibling */
   newPos = curTree~Parent(selItem)
  curTree~Insert(newPos, "LAST", newFldr, 0, 1)
  curTree~Expand(newPos)
 End
```

OODIALOG Tree View - Code Samples (3)

- **List all items in tree**

```
/* list items in tree, then terminate */
Say "The following items are in the tree:"
Call ListItems curTree, curTree~Root, 0

::ROUTINE ListItems
 Use Arg treeCtrl, Item, Indent

 Do While Item \= 0
  info. = treeCtrl~ItemInfo(Item)
  Say Copies(" ", Indent) || info.!Text

  Child = treeCtrl~Child(Item)
  If Child \= 0 Then
   Call ListItems treeCtrl, Child, Indent + 2

  Item = treeCtrl~Next(Item)
 End
```

OODIALOG Tree View - Sample Dialog



Object REXX Tree Control Sample

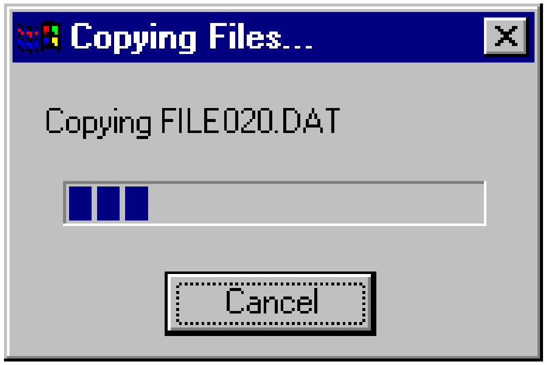
Create your own tree structure:

OODIALOG - Progress Bar/Slider

- Customizable progress indicator
  - horizontal/vertical
  - smooth/discrete progress
  - minimum and maximum values
- Customizable slider input control
  - horizontal/vertical
  - tick mark locations/intervals
  - notifications for user changes

OODIALOG - Progress Bar & Slider Samples

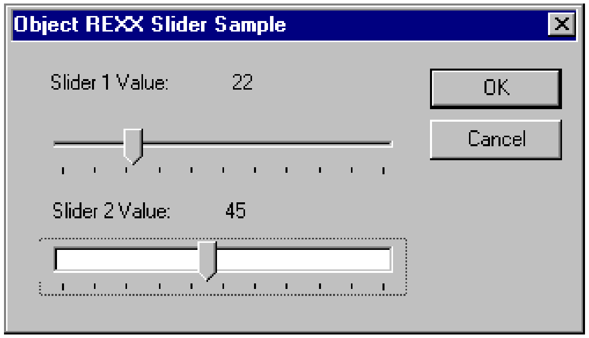
- File copy progress dialog:



Copying Files...

Copying FILE020.DAT

- Slider sample:



Object REXX Slider Sample

Slider 1 Value: 22

Slider 2 Value: 45

Further Information

Object REXX Homepage:

http://www.software.ibm.com/ad/obj-rexx/

Object REXX Service & Support Page:

http://service.software.ibm.com/dl/rexx/orexx-d