

by Grahame King - April, 2006

The following code (released to public domain) illustrates the use of ATL controls with Liberty Basic 4.03 running under Windows. More advanced uses may require event trapping and 3rd party DLLs.

```
' ATL Viewer - thanks to Doyle Whisenant for the concept and the basic
atl dll code
' - and to Alyce Watson for the technique of remembering the filedialo
g directory
' - and a little code borrowed from Eddie
' - and all the good stuff in the LB4 Companion and past support
' - and to the LB community (Sean Brown, Dan, ElEdwards, Stefan Pendl,
Janet Terra...)
' - and, of course, Carl Gundel.
global hWndViewer, hATL, curstyle, styleIndex, typemax, cw, ch,
FileOpen, true, false
false = 0
true = not(false)
FileOpen = false
global CurDir$, curFileType$
CurDir$ = DefaultDir$
nomainwin
WindowWidth=DisplayWidth
WindowHeight=DisplayHeight
UpperLeftX=0:UpperLeftY=0
menu #main, "File",_
    "Open",ViewFile,_
    "Type",SelectFileType,_
    "Close" ,CloseViewerFromMenu
listbox #main.type, filetype$( ),FileType,0,0,60,130
filetype$(1) = "txt" : style(1) = _WS_CHILD or
_WS_VISIBLE or _WS_VSCROLL
filetype$(2) = "rtf" : style(2) = _WS_CHILD or
_WS_VISIBLE or _WS_VSCROLL      :ed(2)=true
filetype$(3) = "doc" : style(3) = _WS_CHILD or
_WS_VISIBLE      :ed(3)=true
filetype$(4) = "pdf" : style(4) = _WS_CHILD or
_WS_VISIBLE      :ed(4)=true
filetype$(5) = "htm" : style(5) = _WS_CHILD or
_WS_VISIBLE or _WS_VSCROLL
filetype$(6) = "jpg" : style(6) = _WS_CHILD or
_WS_VISIBLE or _WS_VSCROLL
filetype$(7) = "gif" : style(7) = _WS_CHILD or _WS_VISIBLE
filetype$(8) = "png" : style(8) = _WS_CHILD or _WS_VISIBLE
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filetype$(9) = "xls" : style(9) = _WS_CHILD or
_WS_VISIBLE :ed(9) = true
curFileType$ = "txt"
curstyle = style(1)
typemax = 9
Open "Liberty Basic ATL Viewer" For Window_nf As #main
#main "TrapClose CloseViewer"
#main.type "hide"
Open "atl" For DLL As #atl
CallDLL #atl, "AtlAxWinInit", Ret As long
hWndViewer = hWnd(#main)
STRUCT Rect,_ 'struct for storing client area rectangle
    leftX as long,_ 'upper left x
    upperY as long,_ 'upper left y
    rightX as long,_ 'lower right x
    lowerY as long 'lower right y
calldll #user32,"GetClientRect",_
    hWndViewer as ulong,_ 'window handle
    Rect as struct,_ 'name of struct
    r as long 'return
cw = Rect.rightX.struct
ch = Rect.lowerY.struct
' for later calls to CreateWindowExA which creates a child window
'WindowWidth=cw
'WindowHeight=ch
'UpperLeftX=0:UpperLeftY=0 top left corner of client area of main wind
ow
wait
sub SelectFileType
    call CloseMainView
    #main.type "show"
    #main.type "setfocus"
end sub
sub FileType handle$
    #handle$, "selectionindex? styleIndex"
    curFileType$ = filetype$(styleIndex)
    curstyle = style(styleIndex)
    call editmode
    #handle$ "hide"
    call ViewFile
end sub
sub editmode
    if ed(styleIndex) then
        msg$ =
"
When
editing features are enabled, right click for popup menu."+chr$(13)+_

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"Ctrl S will save changes overwriting the file! Okay to view in edit mode?"

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    confirm msg$; resp$
    if resp$="no" then curstyle = curstyle + _WS_DISABLED
end if
end sub
function indextype()
    i = 1
    indextype = 0
    while indextype=0 and i<=typemax
        if filetype$(i)=curFileType$ then
            indextype = i
        end if
        i = i+1
    wend
end function
sub ViewFile
    filedialog "Open file", CurDir$+"\*."+curFileType$, fileName$
    if fileName$ = "" then exit sub
    CurDir$ = FilePath$(fileName$)
    fileExt$ = FileExtension$(fileName$)
    if fileExt$<>curFileType$ then
        ' get filetype index and make changes
        curFileType$ = fileExt$
        styleIndex = indextype()
        if styleIndex = 0 then
            notice "Cannot view this file type!"
            exit sub
        else
            call editmode
        end if
    end if
    if FileOpen then call CloseMainView
    on error goto [error]
    CallDLL #user32, "GetWindowLongA", _
        hWndViewer As ulong, _
        _GWL_HINSTANCE As long, _
        hInst As long
    CallDLL #user32, "CreateWindowExA", _
        _WS_EX_STATICEDGE As long, _
        "AtIAxWin" As ptr, _
        fileName$ As ptr, _
        curstyle As long, _
        0 As long, _
        0 As long, _
```

```
        cw As long, _
        ch As long, _
        hWndViewer As ulong, _
        100 As long, _
        hInst As long, _
        0 As long, _
        hATL As ulong
    FileOpen = true
    exit sub
[error]
    notice "There is a problem reading this file"
end sub
sub CloseMainView
' destroy the atl child
    CallDLL #user32, "DestroyWindow", _
        hATL As ulong, _
        r as long
    FileOpen = false
end sub
sub CloseViewer handle$
    call CloseViewerFromMenu
end sub
sub CloseViewerFromMenu
    if FileOpen then call CloseMainView
    Close #atl
    Close #main
end
end sub
function FilePath$(f$)
    fileindex=len(f$)
    filelength=len(f$)
    while mid$(f$, fileindex,1)<>"\"
        fileindex=fileindex-1
    wend
    FilePath$=left$(f$,fileindex)
end function
function FileExtension$(f$)
    fileindex=len(f$)
    filelength=len(f$)
    while mid$(f$, fileindex,1)<>"."
        fileindex=fileindex-1
    wend
    FileExtension$=mid$(f$,fileindex+1,filelength-fileindex)
end function
' end of code '
```

You might like to try adding the bmp file type to see what you get!

The following relevant article was referred to me by Alyce Watson.

<http://www.pluralsight.com/articlecontent/cpprep0799.htm>