
This is Demo 3 to Accompany [Drawing a Tiled Background with CreateCompatibleBitmap](#)

' Demo3: Using CreateCompatibleBitmap and BitBlt to Append a Large Graphic

```
Nomainwin
WindowWidth = 600
WindowHeight = 400

Graphicbox #w.g1, 10, 10, 102, 102
Statictext #w.st1a, "Image Source", 8, 120, 110, 32
Graphicbox #w.g2, 140, 10, 440, 119
Statictext #w.st2a,
"Image transferred from memory using the gdi32 DLL calls", 138, 140, 440, 16
Statictext #w.st2b,
"CreateCompatibleBitmap and BitBlt", 138, 156, 440, 16

' Open the Window
Open "Demo" For Window as #w
#w "Trapclose EndProgram"
#w.g2 "Horizscrollbar On 0 760"

' Display Solid Backgrounds
Call hueBackground "#w.g2", "Darkgreen"

' Get handles and dc of second graphicbox with GetDC
' Place handle numbers in array to make global
hWG1 = hWnd(#w.g1)
hDC1 = GetDC(hWG1)
hWG2 = hWnd(#w.g2)
hDC2 = GetDC(hWG2)

' Create two compatible memory DC with CreateCompatibleDC
dcMem1 = CreateCompatibleDC(hDC1) ' Compatible with #w.g1 'memDC
MemDC(1) = dcMem1
dcMem2 = CreateCompatibleDC(hDC2) ' Compatible with #w.g2
MemDC(2) = dcMem2

' Get a simple bitmap for appending
#w.g1 "Getbmp MemBitmap 0 0 1200 100"
hMemBitmap = hBmp("MemBitmap")

' Create a large bitmap with CreateCompatibleBmp
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```
' Use ScreenDC and not MemoryDC
  hCompBitmap = CreateCompatibleBitmap(hDC2, 1200, 100)

' Select the large bitmap into the second memory device context
  hMemBitmap = SelectObject(dcMem2, hMemBitmap)

' Draw the first bitmap and get its handle
  Call SimpleHouse "#w.g1", 0, 0
  #w.g1 "Getbmp SimpleHouse 0 0 100 100"
  #w.g1 "Flush"
  hSimpleHouse = hBmp("SimpleHouse")

' Draw the second bitmap and get its handle
  Call hueBackground "#w.g1", "Darkblue"
  Call SimpleTrees "#w.g1", 0, 0
  #w.g1 "Getbmp SimpleTrees 0 0 100 100"
  #w.g1 "Flush"
  hSimpleTrees = hBmp("SimpleTrees")

' Draw the third bitmap and get its handle
  Call hueBackground "#w.g1", "Darkblue"
  Call SimpleFence "#w.g1", 0, 0
  #w.g1 "Getbmp SimpleFence 0 0 100 100"
  #w.g1 "Flush"
  hSimpleFence = hBmp("SimpleFence")

For i = 0 to 11
  ' Select the bitmap into the first memory device context
  randomPic = Int(Rnd(1) * 3) + 1
  Select Case randomPic
    Case 1
      hPic = SelectObject(dcMem1, hSimpleHouse)
    Case 2
      hPic = SelectObject(dcMem1, hSimpleTrees)
    Case 3
      hPic = SelectObject(dcMem1, hSimpleFence)
  End Select

' BitBlt the 1st memory device context to the 2nd memory device context
t
  null = BitBlt(dcMem2, i * 100, 0, 100, 100, dcMem1, 0, 0
, _SRCCOPY)
  Next i

' Deselect the bitmap from memory
  hMemBitmap = SelectObject(dcMem2, hMemBitmap)
```

```
' Store handle of bitmap in memory in array to make Global
' Or declare hMemBitmap Global in beginning of program
    hMemBitmap(0) = hMemBitmap

' ReleaseDC on Screen DC
    null = ReleaseDC(hWG1, hDC1)
    null = ReleaseDC(hWG2, hDC2)

' DeleteDC on both memory DC's
    null = DeleteDC(dcMem1)
    null = DeleteDC(dcMem2)

' Loadbmp from handle
    Loadbmp "SimpleScene", hMemBitmap
    #w.g2 "Drawbmp SimpleScene 0 0"
    #w.g2 "Flush"

' Unload the small bmp's as they are no longer needed
    Unloadbmp "SimpleHouse"
    Unloadbmp "SimpleTrees"
    Unloadbmp "SimpleFence"

    Wait

Sub EndProgram handle$
' API Bitmaps cannot be unloaded with Unloadbmp
' DeleteObject instead
    null = DeleteObject(hMemBitmap(0))
' Unload the appended bmp and sprite bmps
    Unloadbmp "SimpleScene"
    Close #w
End
End Sub

Function GetDC(handle)
    CallDLL #user32, "GetDC", _
        handle As Ulong, _
        GetDC as Ulong
End Function

Function ReleaseDC(handle, hDC)
    CallDLL #user32, "ReleaseDC", _
        handle As Ulong, _
        hDC As Ulong, _
        ReleaseDC As Long
End Function
```

```
Function DeleteDC(hDC)
    CallDLL #gdi32, "DeleteDC", _
        hDC as Ulong, _
        result as long
End Function
```

```
Function CreateCompatibleDC(hDC)
    CallDLL #gdi32, "CreateCompatibleDC", _
        hDC as Ulong, _
        CreateCompatibleDC as Ulong
End Function
```

```
Function CreateCompatibleBitmap(hDC, wMem, hMem)
    CallDLL #gdi32, "CreateCompatibleBitmap", _
        hDC as Ulong, _
        wMem as Long, _
        hMem as Long, _
        CreateCompatibleBitmap as Ulong
End Function
```

```
Function SelectObject(hDC, hPic)
    CallDLL #gdi32, "SelectObject", _
        hDC as Ulong, _
        hPic as Ulong, _
        SelectObject as Ulong
End Function
```

```
Function DeleteObject(handleObject)
    CallDLL #gdi32, "DeleteObject", _
        hObject as Ulong, _
        result as long
End Function
```

```
Function BitBlt(
hdcDest, xDest, yDest, wDest, hDest, hdcSource, xSource, ySource, ROP)
    CallDLL #gdi32, "BitBlt", _
        hdcDest as Ulong, _
        xDest as Long, _
        yDest as Long, _
        wDest as Long, _
        hDest as Long, _
        hdcSource as Ulong, _
        xSource as Long, _
        ySource as Long, _
        ROP as Ulong, _
```

```
        result as long
End Function

Sub hueBackground handle$, hue$
    #handle$ "Down; Fill ";hue$
    #handle$ "Flush; Discard"
End Sub

Sub SimpleHouse handle$, xLoc, yLoc
    Call hueBackground handle$, "Darkblue"
    #handle$ "Color 128 64 0; Backcolor Brown"
    #handle$ "Place ";xLoc + 5;" ";yLoc + 50
    #handle$ "Boxfilled ";xLoc + 95;" ";yLoc + 90
    For x = xLoc to xLoc + 100
        #handle$ "Line ";xLoc + 50;" ";y + 10;" ";x;" ";y + 50
    Next x
    #handle$ "Backcolor 128 64 0"
    #handle$ "Place ";xLoc + 10;" ";yLoc + 60
    #handle$ "Boxfilled ";xLoc + 30;" ";yLoc + 80
    #handle$ "Place ";xLoc + 65;" ";yLoc + 60
    #handle$ "Boxfilled ";xLoc + 85;" ";yLoc + 80
    #handle$ "Place ";xLoc + 35;" ";yLoc + 70
    #handle$ "Boxfilled ";xLoc + 60;" ";yLoc + 90
    #handle$ "Color 16 16 16; Backcolor 16 16 16"
    #handle$ "Place ";xLoc;" ";yLoc + 90
    #handle$ "Boxfilled ";xLoc + 100;" ";yLoc + 100
    Call SimpleGrass handle$, xLoc, yLoc
End Sub

Sub SimpleTrees handle$, xLoc, yLoc
    #handle$ "Color 128 64 0; Backcolor Brown"
    #handle$ "Place ";xLoc + 30;" ";yLoc + 60
    #handle$ "Boxfilled ";xLoc + 50;" ";yLoc + 90
    #handle$ "Place ";xLoc + 65;" ";yLoc + 40
    #handle$ "Boxfilled ";xLoc + 75;" ";yLoc + 90
    #handle$ "Color 0 64 0; Backcolor 0 128 64"
    #handle$ "Place ";xLoc + 40;" ";yLoc + 40
    #handle$ "Circlefilled 30"
    #handle$ "Place ";xLoc + 70;" ";yLoc + 50
    #handle$ "Circlefilled 20"
    Call SimpleGrass handle$, xLoc, yLoc
End Sub

Sub SimpleFence handle$, xLoc, yLoc
    #handle$ "Color 64 64 64; Backcolor 192 192 192"
    #handle$ "Place ";xLoc + 10;" ";yLoc + 60
```

```
#handle$ "Boxfilled ";xLoc + 95;" ";yLoc + 70
#handle$ "Place ";xLoc + 10;" ";yLoc + 80
#handle$ "Boxfilled ";xLoc + 95;" ";yLoc + 90
#handle$ "Place ";xLoc + 10;" ";yLoc + 40
#handle$ "Boxfilled ";xLoc + 15;" ";yLoc + 90
#handle$ "Place ";xLoc + 30;" ";yLoc + 40
#handle$ "Boxfilled ";xLoc + 35;" ";yLoc + 90
#handle$ "Place ";xLoc + 50;" ";40
#handle$ "Boxfilled ";xLoc + 55;" ";yLoc + 90
#handle$ "Place ";xLoc + 70;" ";yLoc + 40
#handle$ "Boxfilled ";xLoc + 75;" ";yLoc + 90
#handle$ "Place ";xLoc + 90;" ";yLoc + 40
#handle$ "Boxfilled ";xLoc + 95;" ";yLoc + 90
Call SimpleGrass handle$, xLoc, yLoc
End Sub

Sub SimpleGrass handle$, xLoc, yLoc
  For x = xLoc to xLoc + 100
    greenHue = Int(Rnd(1) * 128) + 16
    #handle$ "Color 0 ";greenHue;" 0"
    y = Int(Rnd(1) * 10) + 85
    #handle$ "Line ";x;" ";y;" ";x;" 100"
  Next x
End Sub
```

- Return to [Drawing a Tiled Background with CreateCompatibleBitmap](#)