

## ***DMD Discovery™ 1100 Visual Basic 6.0 Two DMDs***

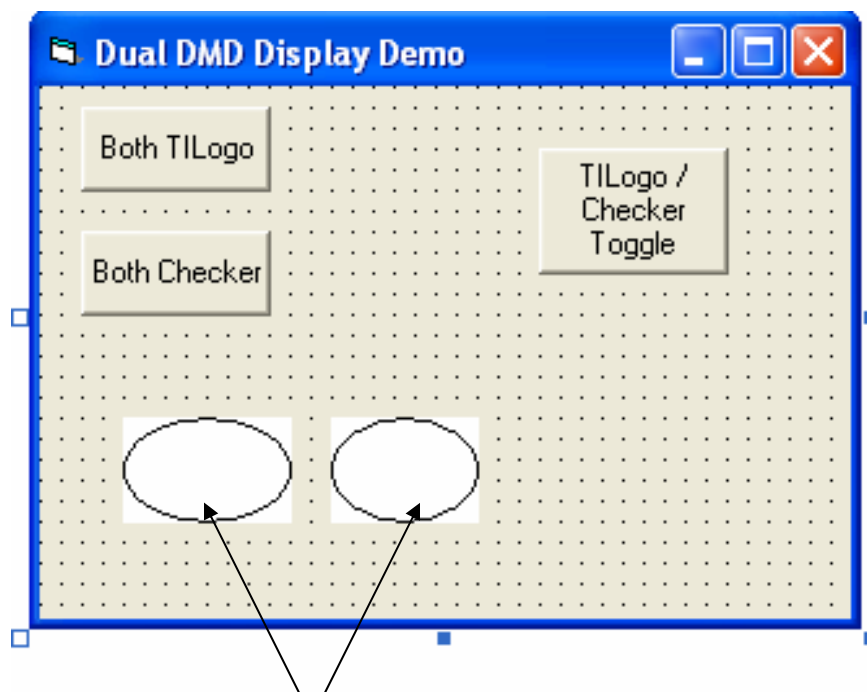
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### **ABSTRACT**

Programming sample for control of the DMD Discovery 1100 (D1100) using two DMDs is provided written in Microsoft Visual Basic 6.0. The sample demonstrates the use of the Discovery ActiveX control in performing common control functions.

### **1.1 2 DMD Visual Basic ActiveX Sample Code**

This sample demonstrates the use of multiple instances of the D1100 ActiveX control by controlling two D1100 boards. Source code is available in the “2 D1100 VB ActiveX Sample Code” folder in the D1100Sample.zip file. The sample opens communication to the DMD boards and displays images as selected by three control buttons. Note the use of two instances of the control on the form, additional devices could be controlled by adding more control instance.



Two D1100 Controls

Refer to Form1.bas function init\_USB() for an example of initializing the D1100 USB for both devices. The GetDeviceMulti call attaches a device and the EnableParallel call configures the device for USB control. Note the two controls are differentiated by the use of names DDC1100Ctrl1 and DDC1100Ctrl2.

```
Private Sub Init_USB()  
Dim ret As Integer  
  
' attach two D1100s using two instances of the ActiveX control  
  
ret = DDC1100Ctrl1.GetDeviceMulti(1) 'Attach device 1  
DDC1100Ctrl1.EnableParallel 0 'Select USB mode  
  
ret = DDC1100Ctrl2.GetDeviceMulti(2) 'Attach device 2  
DDC1100Ctrl2.EnableParallel 0 'Select USB mode  
  
End Sub
```

When the “Both TI Logo” or “Both Checker” control button is clicked the image is displayed by the button event handling subroutine.

```
Private Sub CommandTI_Click()  
Dim buffer(SIZE_OF_IMAGE) As Byte  
Dim varbuffer As Variant  
Dim filename As String  
Dim path As String  
Dim mirror As Integer  
  
path = App.path 'set path to point to image file path (same as application path)  
filename = "TILOGO.bmp" 'set filename to TI logo image file  
varbuffer = buffer 'init image storage  
Show_Image 1, path, filename, varbuffer 'load and display image on device 1  
Show_Image 2, path, filename, varbuffer 'load and display image on device 2  
  
End Sub
```

Subroutine Show\_Image is called to display the selected image. The device number is passed as the first argument.

```
Private Sub Show_Image(DMD As Integer, path As String, filename As String, varbuffer  
As Variant)  
Dim ret As Integer  
  
If DMD = 1 Then 'use device 1  
  
DDC1100Ctrl1.AppPath = path 'set control AppPath attribute to image path  
ret = DDC1100Ctrl1.LoadImageFileToBuffer(filename, varbuffer, 0) 'convert image file  
to varbuffer  
ret = DDC1100Ctrl1.LoadFrameBuffer(varbuffer) 'load varbuffer image to ActiveX  
control buffer  
ret = DDC1100Ctrl1.LoadResetFrame 'load image to DMD and reset DMD  
Else 'use device 2
```

```

DDC1100Ctrl2.AppPath = path 'set control AppPath attribute to image path
ret = DDC1100Ctrl2.LoadImageFileToBuffer(filename, varbuffer, 0) 'convert image file
to varbuffer
ret = DDC1100Ctrl2.LoadFrameBuffer(varbuffer) 'load varbuffer image to ActiveX
control buffer
ret = DDC1100Ctrl2.LoadResetFrame 'load image to DMD and reset DMD
End If

End Sub

```

When the “TI Logo/Checker Toggle” control button is clicked the image is displayed by the button event handling subroutine. The image displayed on each device is toggled.

```

Private Sub CommandToggle_Click()

    Dim buffer(SIZE_OF_IMAGE) As Byte
    Dim varbuffer As Variant
    Dim filename As String
    Dim path As String
    Dim mirror As Integer

    path = App.path 'set path to point to image file path (same as application path)
    filename = "TILOGO.bmp" 'set filename to TI logo image file
    varbuffer = buffer 'init image storage
    Show_Image toggle Mod 2 + 1, path, filename, varbuffer 'load and display image on
device

    toggle = toggle + 1 'inc device number

    path = App.path 'set path to point to image file path (same as application path)
    filename = "checker1.bmp" 'set filename to checker logo image file
    varbuffer = buffer 'init image storage
    Show_Image toggle Mod 2 + 1, path, filename, varbuffer ' load and display image on
device

End Sub

```