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Thread: [Scan screen for specific pixel color, move mouse to it, and click it.](#)

Eloquence - February 24, 2014, 10:55 am

I am working on something where I need to find a specific pixel color and move the mouse to it. After the mouse is there I need to click it. And issue is there are numerous of the same pixel and I need to be able to have it click all of them. Any help with this would be greatly appreciated. Thanks!

derpin0n - February 24, 2014, 11:08 am

Try using a for each loop.

<http://msdn.microsoft.com/en-us/library/5ebk1751.aspx>

Eloquence - February 24, 2014, 11:09 am

(Feb 24, 2014 12:08 PM)derpin0n Wrote: [\[CITE\]](#) Try using a for each loop.

<http://msdn.microsoft.com/en-us/library/5ebk1751.aspx>

Okay, now how do I go about finding the pixel and moving the mouse to it?

derpin0n - February 24, 2014, 11:52 am

Well, as I understood from your thread, you're saying you already have that.

Anyway, you should take a look at the following APIs:

[http://msdn.microsoft.com/en-us/library/windows/desktop/dd144909\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/dd144909(v=vs.85).aspx)

[http://msdn.microsoft.com/en-us/library/windows/desktop/ms648394\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/ms648394(v=vs.85).aspx)

Eloquence - February 24, 2014, 12:21 pm

(Feb 24, 2014 12:52 PM)derpin0n Wrote: [\[CITE\]](#) Well, as I understood from your thread, you're saying you already have that.

Anyway, you should take a look at the following APIs:

[http://msdn.microsoft.com/en-us/library/windows/desktop/dd144909\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/dd144909(v=vs.85).aspx)

[http://msdn.microsoft.com/en-us/library/windows/desktop/ms648394\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/ms648394(v=vs.85).aspx)

Those are for C++. Could you find it for vb I have been looking since you posted this.

Menalix - February 24, 2014, 4:04 pm

(Feb 24, 2014 01:21 PM)Eur?ka Wrote: [\[CITE\]](#) Those are for C++. Could you find it for vb I have been looking since you posted this. Those are for all programming languages.

But the example syntax is written in c++

Hawk HF - February 24, 2014, 5:28 pm

I know that you can get the color of a pixel from a bitmap.

Look up a tutorial on how to get a screen capture, since I know there's a ton of them. Then use a loop to go through each pixel on the screen in search of your color.

Hope this helps.

marvinn - February 25, 2014, 12:04 am

Create a bitmap from the screen (A screenshot). Use the bitmap function GetPixel(x,y) ([http://msdn.microsoft.com/en-us/library/system.drawing.bitmap.getpixel\(v=vs.110\).aspx](http://msdn.microsoft.com/en-us/library/system.drawing.bitmap.getpixel(v=vs.110).aspx)) and make a for loop, for (int w = 0; w < bitmap.Width; w++) to scan the whole bitmap. Hope you understand it :)

BlackCap - February 25, 2014, 5:48 am

First of all you would need to get a picture of the area where your pixel are. The easiest way to do this would be to take a screenshot, but, it is also possible to make the exact windows / control that you are searching render itself on to a bitmap using either of the bitblt or printwindows api calls.

For the sake of simplicity I'm just going to take a screenshot in this example, but I would strongly urge you to use bitblt unless you're working with a fullscreen window.

PHP Code

```
<?php
```

```
Function TakeScreenshot() As Bitmap
```

```
    Dim B As New Bitmap(My.Computer.Screen.Bounds.Width, My.Computer.Screen.Bounds.Height)
```

```
    Dim G = Graphics.FromImage(B)
```

```
    G.CopyFromScreen(My.Computer.Screen.Bounds.X, My.Computer.Screen.Bounds.Y, 0, 0, My.Computer.Screen.Bounds.Size)
```

```
    G.Dispose()
```

```
    Return B
```

```
End Function
```

Then you have to figure out where in the picture the color you seek are. The easiest way to go about this would be the GetPixel function in the graphics class. However, each time you use that method it will load the entire image into the memory, hand you that one pixel you asked for, and then burn the rest of the image; this is really really slow, so unless you really only need one pixel, you should load the image into memory yourself. You can do so with the LockBits function.

NOT LIKE THIS:

PHP Code

```
<?php
```

```
Dim s = TakeScreenshot()
```

```
For y = 0 To s.Height - 1
```

```
    For x = 0 To s.Width - 1
```

```
        Dim pixel = s.GetPixel(x, y)
```

```
        ' ...
```

```
    Next
```

```
Next
```

But like this:

PHP Code

```
<?php
```

```
Iterator Function FindPixels(b As Bitmap, c As Color) As IEnumerable(Of Point)
```

```
    Dim d = b.LockBits(New Rectangle(0, 0, b.Width, b.Height), Imaging.ImageLockMode.ReadOnly, b.PixelFormat)
```

```
    Dim buf(d.Height * d.Stride - 1) As Byte
```

```
    ' Copy the bytes to memory (buf)
```

```
    Runtime.InteropServices.Marshal.Copy(d.Scan0, buf, 0, buf.Count)
```

```

' Loop through all the bits in the image
For i = 0 To buf.Length - 1 Step 4 ' Each pixel contains four bytes (A, R, G, B)
    If c.A <> buf(i + 3) Then Continue For ' You can remove this as your picture doesn
't contain opacity
    If c.R <> buf(i + 2) Then Continue For
    If c.G <> buf(i + 1) Then Continue For
    If c.B <> buf(i + 0) Then Continue For

    Dim ya = i / d.Stride
    Dim y = Math.Floor(ya)
    Dim x = (ya - y) * d.Width

    Yield New Point(CInt(x), Math.Floor(y))
Next

' Finally unlock the image
b.UnlockBits(d)
End Function

```

So at this point you have a list of points which needs to be clicked, and you just need a way to click them. The easiest thing to do here is to just "click"; however, it is also possible to just send a click message with API calls. The `bitblt` method can screenshot windows even if they are not visible on the screen, and nor does the thing that you click have to be visible on the screen for you to send it a click message.

However, if you're working with an application that are visible on the screen at all times, actually moving the cursor to a location and clicking should do just fine.

PHP Code

```

<?php
Private Declare Sub mouse_event Lib "user32" (dwFlags%, dX%, dY%, cButtons%, dwExtraInfo As
IntPtr)

```

Public Enum MouseEventFlags

```

Move = 1 << 0
LeftDown = 1 << 1
LeftUp = 1 << 2
RightDown = 1 << 3
RightUp = 1 << 4
MiddleDown = 1 << 5
MiddleUp = 1 << 6
ABSOLUTE = 1 << 15 ' Is it just me who think it's wierd that they didn
't put this at 2^7 so that it would fit on a byte?
End Enum

```

Sub LeftClick()

```

    mouse_event(MouseEventFlags.LEFTDOWN Or MouseEventFlags.LEFTUP, 0, 0, 0, 0)
End Sub

```

And then, finally, to loop through all the pixels on the screen and click a specific color:

PHP Code

```

<?php
For Each p In FindPixels(TakeScreenshot, Color.Green)
    Cursor.Position = p

```

LeftClick()
Next

Onin42 - February 25, 2014, 8:01 am

Hi if you need a source i have the perfect source for you, i created an roulette auto click. Arcade game betfair.

here is the code:

```
Code Public Function ObserveColor(ByVal Pos As Point, ByVal C As Color, Optional Trys As Integer = 5) As Boolean
    Cursor.Position = Pos
    For i As Integer = 0 To Trys
        G.CopyFromScreen(Cursor.Position, Point.Empty, Bmp.Size)
        If Bmp.GetPixel(0, 0).Equals(C) Then
            Return True
        End If
        System.Threading.Thread.Sleep(150)
    Next
    Return False
End Function
Code Public Declare Auto Function SetCursorPos Lib "User32.dll" (ByVal X As Integer, ByVal Y As Integer) As Long
Public Declare Auto Function GetCursorPos Lib "User32.dll" (ByRef lpPoint As Point) As Long
Public Declare Sub Mouse_Event Lib "user32" Alias "mouse_event" (ByVal dwFlags As Integer, ByVal dx As Integer, ByVal dy As Integer, ByVal cButtons As Integer, ByVal dwExtraInfo As Integer)
Public Const MOUSEEVENTF_LEFTDOWN = &H2
Public Const MOUSEEVENTF_LEFTUP = &H4
Public Const MOUSEEVENTF_MIDDLEDOWN = &H20
Public Const MOUSEEVENTF_MIDDLEUP = &H40
Public Const MOUSEEVENTF_RIGHTDOWN = &H8
Public Const MOUSEEVENTF_RIGHTUP = &H10
Public Const MOUSEEVENTF_MOVE = &H1

Public Sub MouseClick(ByVal MouseButton As MouseButton, ByVal MousePos As Point)
    Cursor.Position = MousePos

    Select Case MouseButton

    Case MouseButton.Left
        Mouse_Event(MOUSEEVENTF_LEFTDOWN, 0, 0, 0, 0)
        Mouse_Event(MOUSEEVENTF_LEFTUP, 0, 0, 0, 0)

    Case MouseButton.Right
        Mouse_Event(MOUSEEVENTF_RIGHTDOWN, 0, 0, 0, 0)
        Mouse_Event(MOUSEEVENTF_RIGHTUP, 0, 0, 0, 0)

    End Select
End Sub
```