

Tutorial 0: Win32 Basics

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Summary

In this preliminary tutorial, we will go through the steps necessary to create a Win32 application. We will be setting up an empty window to prepare for Direct3D 10.

Source

(SDK root)\Samples\C++\Direct3D10\Tutorials\Tutorial00

Setting Up The Window

Every Windows application requires at least one window object. Before even getting to the Direct3D 10 specifics, our application must have a working window object. Three things are involved:

1. Register a window class.

```
//
// Register class
//
WNDCLASSEX wcex;
wcex.cbSize = sizeof(WNDCLASSEX);
wcex.style      = CS_HREDRAW | CS_VREDRAW;
wcex.lpfnWndProc = WndProc;
wcex.cbClsExtra = 0;
wcex.cbWndExtra = 0;
wcex.hInstance  = hInstance;
wcex.hIcon      = LoadIcon(hInstance, (LPCTSTR)IDI_TUTORIAL1);
wcex.hCursor    = LoadCursor(NULL, IDC_ARROW);
wcex.hbrBackground = (HBRUSH)(COLOR_WINDOW+1);
wcex.lpszMenuName = NULL;
wcex.lpszClassName = szWindowClass;
wcex.hIconSm    = LoadIcon(wcex.hInstance, (LPCTSTR)IDI_TUTORIAL1);
if( !RegisterClassEx(&wcex) )
    return FALSE;
```

2. Create a window object.

```
//
// Create window
//
g_hInst = hInstance; // Store instance handle in our global variable
RECT rc = { 0, 0, 640, 480 };
AdjustWindowRect( &rc, WS_OVERLAPPEDWINDOW, FALSE );
g_hWnd = CreateWindow( szWindowClass, L"Direct3D 10 Tutorial 0: Setting Up Window", WS_OVERLAPPEDWINDOW,
    CW_USEDEFAULT, CW_USEDEFAULT, rc.right - rc.left, rc.bottom - rc.top, NULL, NULL,
    hInstance, NULL);

if( !g_hWnd )
    return FALSE;

ShowWindow( g_hWnd, nCmdShow );
```

3. Retrieve and dispatch messages for this window.

```
//
// Main message loop
//
MSG msg = {0};
while( GetMessage( &msg, NULL, 0, 0 ) )
{
    TranslateMessage( &msg );
    DispatchMessage( &msg );
}

LRESULT CALLBACK WndProc( HWND hWnd, UINT message, WPARAM wParam, LPARAM lParam )
{
    PAINTSTRUCT ps;
    HDC hdc;

    switch (message)
```

```
    {  
        case WM_PAINT:  
            hdc = BeginPaint(hWnd, &ps);  
            EndPaint(hWnd, &ps);  
            break;  
  
        case WM_DESTROY:  
            PostQuitMessage(0);  
            break;  
  
        default:  
            return DefWindowProc(hWnd, message, wParam, lParam);  
    }  
  
    return 0;  
}
```

These are the minimum steps required to set up a the window object which is required by every Windows application. If we compile and run this code, we will see a window with a blank white background.

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