

## LECTURE-5 PREDEFINED WINDOWS

For creating any window, WinMain() function must process following steps.

- Defining Window
- Registering Window
- Creating Window
- Showing Window
- Message loop.

In case of predefined windows first two steps are skipped as windows are predefined in operating system. Some of the predefined windows are:

- BUTTONS
- LISTBOX
- EDIT
- COMBOX
- SCROLLBAR
- STATIC.

### 5.1 BUTTON

Following program creates a predefined window -BUTTON  
/\* Lesson 5 – Predefined window-BUTTON  
\*/

```
#include <windows.h>
```

```
// Main function
```

```
int WINAPI
```

```
WinMain(HINSTANCE hInstance, HINSTANCE hPrevInstance, LPSTR lp, INT  
nShow)
```

```
{
```

```
    MSG msg; // MSG structure to store messages  
    HWND hWnd; // Handle to WINDOW
```

```
        // Create the window
```

```
    hWnd = CreateWindow("BUTTON", "My Button",  
        BS_PUSHBUTTON,  
        100, 100, 100, 100,  
        NULL, //Extended window style  
        NULL, // Handle to menu  
        hInstance, // Handle to application instance  
        NULL); // Pointer to window creation data
```

```
        // Make the window visible
```

```
    ShowWindow(hWnd, nShow);
```

```

// Process messages coming to this window
while (GetMessage(&msg,hWnd,NULL,NULL))
{
    TranslateMessage(&msg);//Translate virtual key message
    DispatchMessage(&msg); //Dispatch message to window
    if(msg.message==WM_LBUTTONDOWN)
        break;
}
// return value to the system
return 0;
}

```

### 5.1.1 : Button Style

Various forms of BUTTON STYLE (beginning with BS\_) are:

BS\_3STATE, BS\_AUTOCHECKBOX, BS\_AUTORADIOBUTTON,  
 BS\_CHECKBOX, BS\_GROUPBOX, BS\_LEFTTEXT, BS\_RADIOBUTTON,  
 BS\_BITMAP, BS\_BOTTOM, BS\_CENTER, BS\_TOP, BS\_VCENTER

### 5.1.2 List Box Win SDK (Software development kit) style

Various forms of LISTBOX STYLE (beginning with LBS\_) are:

LBS\_EXTENDEDSEL, LBS\_MULTICOLUMN, LBS\_NODATA,  
 LBS\_NOREDRAW and so on

### 5.13 Edit box Win SDK style

Various forms of EDIT STYLE (beginning with ES\_) are:

ES\_AUTOSCROLL, ES\_AUTOVSCROLL, ES\_CENTER, ES\_LEFT, and so on.

### 5.14 COMBO BAR STYLE (beginning with CBS\_) are:

CBS\_AUTOSCROLL, CBS\_DROPDOWN, CBS\_DROPDOWNLIST,  
 CBS\_SIMPLE, CBS\_SORT,

### 5.15 Scroll Bar style

Various forms of SCROLLBAR STYLE (beginning with SBS\_) are:

SBS\_BOTTOMALIGN, SBS\_HORZ, SBS\_LEFTALIGN, SBS\_RIGHTALIGN,

