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1 #include<windows.h>
2 #include<stdio.h>      // for sprintf()
3 #include<process.h>    // for _beginthread()
4
5 LRESULT CALLBACK WndProc(HWND, UINT, WPARAM, LPARAM);
6
7 // ThreadProc() functions
8 void __cdecl MyThreadProcOne(void *);
9 void __cdecl MyThreadProcTwo(void *);
10
11 int WINAPI WinMain(HINSTANCE hInstance, HINSTANCE hPrevInstance,
12                   LPSTR lpCmdLine, int nCmdShow)
13 {
14     WNDCLASSEX wndclass;
15     HWND hwnd;
16     MSG msg;
17     char AppName[] = "MULTITHREADING";
18
19     wndclass.cbSize = sizeof(wndclass);
20     wndclass.style = CS_HREDRAW | CS_VREDRAW;
21     wndclass.cbClsExtra = 0;
22     wndclass.cbWndExtra = 0;
23     wndclass.lpfnWndProc = WndProc;
24     wndclass.hIcon = LoadIcon(NULL, IDI_APPLICATION);
25     wndclass.hCursor = LoadCursor(NULL, IDC_ARROW);
26     wndclass.hIconSm = LoadIcon(NULL, IDI_APPLICATION);
27     wndclass.hbrBackground = (HBRUSH) GetStockObject(WHITE_BRUSH);
28     wndclass.hInstance = hInstance;
29     wndclass.lpszClassName = AppName;
30     wndclass.lpszMenuName = NULL;
31
32     RegisterClassEx(&wndclass);
33
34     hwnd=CreateWindow(AppName,
35                      "Example Of Multithreading",
36                      WS_OVERLAPPEDWINDOW,
37                      CW_USEDEFAULT,
38                      CW_USEDEFAULT,
39                      CW_USEDEFAULT,
40                      CW_USEDEFAULT,
41                      NULL,
42                      NULL,
43                      hInstance,
44                      NULL);
45
46     ShowWindow(hwnd, nCmdShow);
47     UpdateWindow(hwnd);
48
49     while (GetMessage(&msg, NULL, 0, 0)) {
50         TranslateMessage(&msg);
51         DispatchMessage(&msg);
52     }
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53
54     //Previously for Visual Studio6
55     // return (msg.wParam);
56     return ((int)msg.wParam);
57 }
58
59 // Window Procedure
60 LRESULT CALLBACK WndProc(HWND hwnd, UINT iMsg, WPARAM wParam, LPARAM lParam)
61 {
62     unsigned long ulThread1,ulThread2;
63
64     switch (iMsg) {
65         case WM_CREATE:
66             //Previously for Visual Studio6
67             //ulThread1=_beginthread(MyThreadProcOne,0,(void *)hwnd);
68             ulThread1=(unsigned long )_beginthread(MyThreadProcOne,0,(void *)  ➤
                hwnd);
69
70             //Previously for Visual Studio6
71             //ulThread2=_beginthread(MyThreadProcTwo,0,(void *)hwnd);
72             ulThread2=(unsigned long )_beginthread(MyThreadProcTwo,0,(void *)  ➤
                hwnd);
73             break;
74
75         case WM_DESTROY:
76             PostQuitMessage(0);
77             break;
78     }
79     return (DefWindowProc(hwnd, iMsg, wParam, lParam));
80 }
81
82 void __cdecl MyThreadProcOne(void *param)
83 {
84     HDC hdc;
85     int i;
86     char str[255];
87
88     hdc = GetDC((HWND)param);
89     for(i = 0; i <=32767; i++) {
90         //Previously for Visual Studio6
91         //sprintf(str, "Thread 1 -> Increasing Order Output = %d", i);
92         sprintf_s(str,255,"Thread 1 -> Increasing Order Output = %d", i);
93         //Previously for Visual Studio6
94         //TextOut(hdc, 5, 5, str, strlen(str));
95         TextOut(hdc, 5, 5, str, (int)strlen(str));
96     }
97     ReleaseDC((HWND)param, hdc);
98 }
99
100 void __cdecl MyThreadProcTwo(void *param)
101 {
102     HDC hdc;

```

```
103     int i;
104     char str[255];
105
106     hdc = GetDC((HWND)param);
107     for(i = 32767; i >= 0; i--) {
108         //Previously for Visual Studio6
109         //sprintf(str, "Thread 2 -> Decreasing Order Output = %d", i);
110         sprintf_s(str,255,"Thread 2 -> Increasing Order Output = %d", i);
111         //Previously for Visual Studio6
112         //TextOut(hdc, 5, 25, str, strlen(str));
113         TextOut(hdc, 5, 25, str, (int)strlen(str));
114     }
115     ReleaseDC((HWND)param,hdc);
116 }
117
```