



Visual C++

Linking Explicitly

With explicit linking, applications must make a function call to explicitly load the DLL at run time. To explicitly link to a DLL, an application must:

- Call **LoadLibrary** (or a similar function) to load the DLL and obtain a module handle.
- Call **GetProcAddress** to obtain a function pointer to each exported function that the application wants to call. Because applications are calling the DLL's functions through a pointer, the compiler does not generate external references, so there is no need to link with an import library.
- Call **FreeLibrary** when done with the DLL.

For example:

```
typedef UINT (CALLBACK* LPFNDLLFUNC1)(DWORD,UINT);
...

HINSTANCE hDLL;           // Handle to DLL
LPFNDLLFUNC1 lpfnDllFunc1; // Function pointer
DWORD dwParam1;
UINT uParam2, uReturnVal;

hDLL = LoadLibrary("MyDLL");
if (hDLL != NULL)
{
    lpfnDllFunc1 = (LPFNDLLFUNC1)GetProcAddress(hDLL,
                                                "DllFunc1");

    if (!lpfnDllFunc1)
    {
        // handle the error
        FreeLibrary(hDLL);
        return SOME_ERROR_CODE;
    }
    else
    {
        // call the function
        uReturnVal = lpfnDllFunc1(dwParam1, uParam2);
    }
}
```

What do you want to do?

- [Link implicitly](http://msdn.microsoft.com/en-us/library/d14wsce5.aspx) [<http://msdn.microsoft.com/en-us/library/d14wsce5.aspx>]
- [Determine which linking method to use](http://msdn.microsoft.com/en-us/library/253b8k2c.aspx) [<http://msdn.microsoft.com/en-us/library/253b8k2c.aspx>]

What do you want to know more about?

- [LoadLibrary and AfxLoadLibrary](http://msdn.microsoft.com/en-us/library/zzk20sxw.aspx) [<http://msdn.microsoft.com/en-us/library/zzk20sxw.aspx>]
- [GetProcAddress](http://msdn.microsoft.com/en-us/library/64tkc9y5.aspx) [<http://msdn.microsoft.com/en-us/library/64tkc9y5.aspx>]
- [FreeLibrary and AfxFreeLibrary](http://msdn.microsoft.com/en-us/library/h4ff11tc.aspx) [<http://msdn.microsoft.com/en-us/library/h4ff11tc.aspx>]
- [The search path used by Windows to locate a DLL](http://msdn.microsoft.com/en-us/library/7d83bc18.aspx) [<http://msdn.microsoft.com/en-us/library/7d83bc18.aspx>]

**See Also
Concepts**

[Linking an Executable to a DLL](http://msdn.microsoft.com/en-us/library/9yd93633.aspx) [<http://msdn.microsoft.com/en-us/library/9yd93633.aspx>]

Tags:**Community Content**