Subclassing

Windows programming

What is subclassing?

❑ Replace message handlers of a window with your own

❑ Two types of subclassing

- Instance
- Global

New technique

❑ **SetWindowSubclass**

❑ LRESULT CALLBACK **MyControlWndProc**(
    HWND hWnd, UINT msg,
    WPARAM wParam, LPARAM lParam,
    UINT_PTR uIdSubclass, DWORD_PTR dwRefData)

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Benefit

❑ Several subclasses can share the same subclass procedure and the ID can identify each call

❑ The important advantage is that each subclass instance has its own reference data

Old technique

OldWndProc = (WNDPROC) **SetWindowLongPtr** (hButton, GWLP_WNDPROC,

(LONG_PTR) NewWndProc);

Store old data

SetProp (hwnd, L"MyData"), (HANDLE)pMyData);

Disadvantage

❑ The window procedure can only be replaced **once**

❑ Difficult to remove a subclass after it is created

❑ Associating private data with a window is inefficient

❑ To call the next procedure in a subclass chain, you cannot cast the old window procedure and call it, you must call it by using the **CallWindowProc** function

Further reading

❑ Using Visual Styles with Custom and Owner-Drawn Controls

❑ https://msdn.microsoft.com/en-us/library/windows/desktop/dd373487(v=vs.85).aspx