Hook

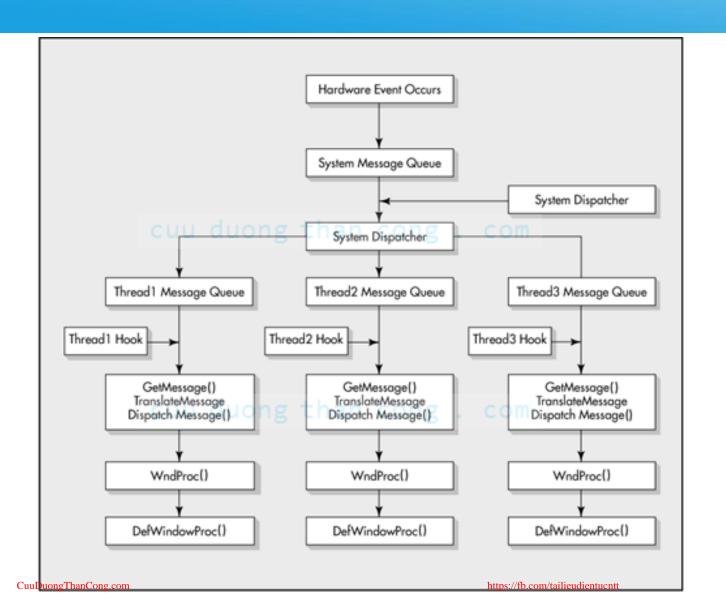## Windows programming

What is hook?

2

Definition

❑ Monitor events

❑ Before it happens – Do something

❑ Allow the event to happen or not

❑ After it happens – Do something

Two types of hook

❑ **Thread hook**: monitor all message in a thread or an application

❑ **Global hook**: monitor system message queue (needs to be stored in a DLL)

Objectives

❑ Keyboard: Vietnamese typing, log, macro (games), remote control (recording)...

❑ Mouse: Click'n See

❑ CBT – Computer based training

5

Message

- ❑ WH_KEYBOARD: WM_KEYDOWN, WM_KEYUP
- ❑ WH_MOUSE
- ❑ WH_GETMESSAGE: Common message
- ❑ WH_CBT: create, acive, destroy, maximize, minimize, move, size... of window
- ❑ WH_JOURNALPLAYBACK: System message queue
- ❑ WH_JOURNALRECORD: Global hook

HookProc

- ❑ **LRESULT CALLBACK** *HookProc***(**
  int *nCode***,**
  WPARAM *wParam***,**
  LPARAM *lParam);*

- ❑ **SetWindowsHookEx**
- ❑ **UnhookWindowsHookEx**

Hook chain

❑ Last hook function will be activated first!