Course introduction

Windows Programming

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Lecturer information



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- What I like
 - Windows programming
 - Android & iOS
 - Full stack web development

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?Questions you may have

- Why should I attend this course?
- What do I want from this course?
- What is the best strategy in this course?

Let's have a plan!

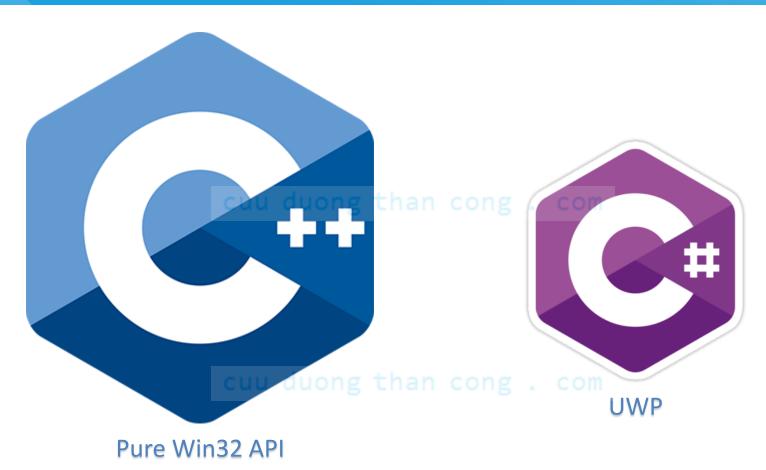


Course's objectives

- After finishing the course, the students can
- Understand characteristics of Windows applications
- Create simple Windows applications in OOP
 - Using common controls
 - Supporting multithread
- Use unique techniques in Windows
 - DLL
 - Hook
 - Subclassing



Weapon of choice





Schedule

- 1. 11.09: Course info, message loop, app structure
 - CallBack & Function pointer
 - Button, Label, Textbox, Image, MessageBox
 - Simple coding convention (Hungarian notation) => Activity
 - Lab01 Environment, basic operations
 - Lab02 Enough Git to be dangerous
 - Lab03 Label TextBox Button Image
- 2. 18.09: Windows styles, visual styles, String manipulation Reverse engineering
 - Lab04 Multiple windows & data passing
 - Lab05 OOP Doxygen than cong . com
- 3. Timer, CheckBox, RadioButton, Groupbox, Status
 - Resources: Icon, Menu, Dialog, String
- 4. 25.09: ComboBox, ListBox, TreeView, ListView
- 5. 02.10: File system, Ribbon, TotalCommander



Schedule 2

- 6. 09.10: Dialog & Common dialog Keyboard & Mouse, Clipboard
 - Ini, Registry, Text file
- 7. 16.10: GDI, GDIPlus Paint project
- 8. 23.10: DLL
- 9. 30.10: Hook, Subclass (menu)
- 10.?

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Schedule 2

- 11. 06.11: Multithread Sorting object?
- 12. 13.11: Memory, multimedia Audio file player
- 13. 27.11: Basic C#
- 14. 04.12: WPF, MVVM than cong . com
- 15. 11.12: LINQ, Entity, delegate & event
- 16. 18.12: 3 layer (plugin architecture)

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Grading

In-class activities: 10%

☐ Tutorial: 15%

☐ Projects: 75%

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Projects

- * Brainstorming projects
- * File system project
 - C++ Normal functions -> C++ Shell function
 - C# Universal^{uu} duong than cong.com
- * Paint project
 - C++ GDI -> C++ GDI+ -> C# UWP
- Quick note / Quick launch / Keylogger / Multiwindow
- Multithread



Deliverables

- source code (cleaned)
- Release (exe)
- Readme.md
- upoutube link duong than cong . com

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Materials for learning

- Windows programming, Charles Petzolt, 2002
- ☐ C++ Windows programming, 2016
- Visual C++ Windows Shell programming, 1998
- Windows API Index
 - https://msdn.microsoft.com/enus/library/windows/desktop/ff818516(v=vs.85).aspx



Policy

- Similar submission: 0 both
 - >=40% with JPlag
 This entropy may be higher
 Exception: Teacher samples code or popular solution on internet
 - Even if just rename variables or split funcs (let's see demo)
- Late submission:
 - 72h hour total throughout the course
 - All links accept late submission
- Core problem must be solved by yourself
 - <u>Can</u> used other's source code if it <u>does not</u> solve the core problem for you
 - Must put reference to the code you use in report

Facebook group

- Monitor: Find & add friend this user
 - https://www.facebook.com/profile.php?id=100007515497201



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Private group, only monitor can add members

Question?

