

Music 120: Introduction to Audio/Multimedia App. Programming

Week #6 - 10/30/2006
CCRMA, Department of Music
Stanford University

Last Week...

- HW1 review
- VST SDK: Xcode projects
- GUI programming with Cocoa
- Objective-C
- Demo: GUI-based Stk app.
 - Xcode / Interface Builder / StkX
- Assignment #2

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Today...

- HW1 review
- Cocoa BeeThree review
- GUI programming with Qt
- Demo: GUI-based Stk app.
 - Qt Designer / Stk

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HW1...

- Modified codes posted
 - check "assignment 1" page
 - don't miss s06 & s07!
- Plagiarism isn't necessarily bad... ;-)
- Share your code with others!

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Cocoa BeeThree Review

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GUI Programming With Qt

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What Is Qt?

- A set of C++ class library and tools
 - Qt Class library
 - Qt Designer
- **Cross-platform** development!
 - Windows
 - Mac
 - X11 (Linux, Solaris, etc.)
 - Qtopia Core (embedded Linux port)

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What Is Qt? (cont'd)

- Open source, too!
 - not always free, though...
- <http://www.trolltech.com>
- Current version: 4 (4.2.1)
- Current **CCRMA** version: 3 (3.3.4)
 - V3 to be active by 07/2007

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Basic Tools

- Qt Designer
 - user-interface design
 - basic connections between objects
 - coding
- (Some) IDE...?
 - building
 - debugging

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Qt Designer

- Lays out and connects user-interface elements
 - widgets
 - signals / slots
 - connections
- Edits *ui* files
 - XML files containing UI info

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More Qt Info...?

- Qt 3.3 reference doc
 - <http://doc.trolltech.com/3.3/>
- Qt Designer manual
 - <http://doc.trolltech.com/3.3/designer-manual.html>

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Week 7 & 8

- Week 7: GUI programming & MVC
 - MVC (model, view, & controller)
 - examples: BeeThree and Theremin
- Week 8: Image and graphics with sound
 - Image & OpenGL with Cocoa
 - NSView class
 - examples: ColorProbe and StkOpenGLTeapot

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