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

10/30/06, Music 120, CCRMA, Stanford

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

10/30/06, Music 120, CCRMA, Stanford

HW1...
- Modified codes posted
  ‣ check “assignment 1” page
  ‣ don’t miss s06 & s07!
- Plagiarism isn’t necessarily bad... ;-
- Share your code with others!

10/30/06, Music 120, CCRMA, Stanford

Cocoa BeeThree Review

GUI Programming With Qt

10/30/06, Music 120, CCRMA, Stanford
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)

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

Basic Tools

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

Qt Designer

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

More Qt Info...?

- Qt 3.3 reference doc
  - http://doc.trolltech.com/3.3/
- Qt Designer manual

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