

Music 3SI: Introduction to Audio/Multimedia App. Programming

Week #7 - 5/19/2006
CCRMA, Department of Music
Stanford University

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Last Week...

- Stk GUI Programming with Qt
- A2 handed out

Today...

- GUI programming review
- Advanced GUI programming topics
 - Events
 - MVC
- Image
- OpenGL

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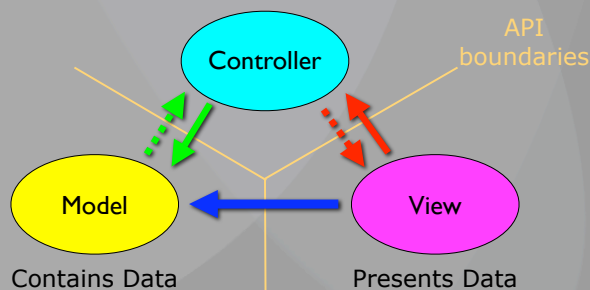
Model, View, & Controller

- Breaks an application into 3 main categories
 - model:
manages the app data and state,
not concerned with UI or presentation
 - view:
displays the model objects to the user
 - controller:
coordinates the model and the view,
keeps the view updated when model changes,
etc.
typically where app "logic" is.

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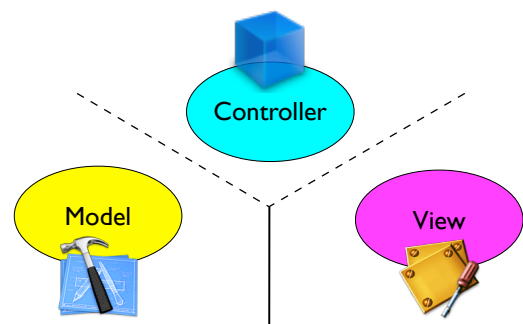
Model, View, & Controller

- Coordinates between Model & View



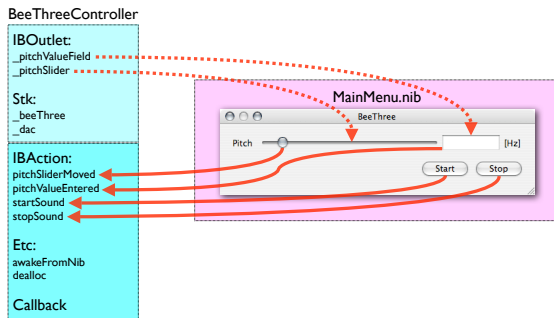
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Model, View, Controller



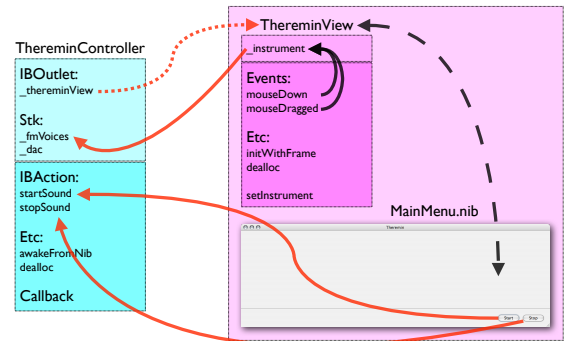
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Example: BeeThree



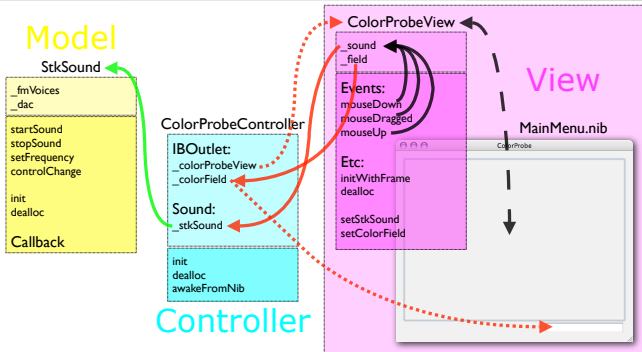
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Example: Theremin



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Example: ColorProbe



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Factoring Code

- Creating your own methods
- Don't copy/paste code
- If you have the same code in numerous places, it's time to factor!
- Break common chunks of code out into smaller units
 - ▶ Makes it more maintainable
 - ▶ If there is a bug, only exists in one place

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