

iPhone Programming

CMSC 498i – Spring 2010




Mini Feature Survey

Lecture #10.2 – Chuck Pisula

iPhone OS Survey

- Fast overview, details later in the semester...
- Understand where everything lives

Technology Layering



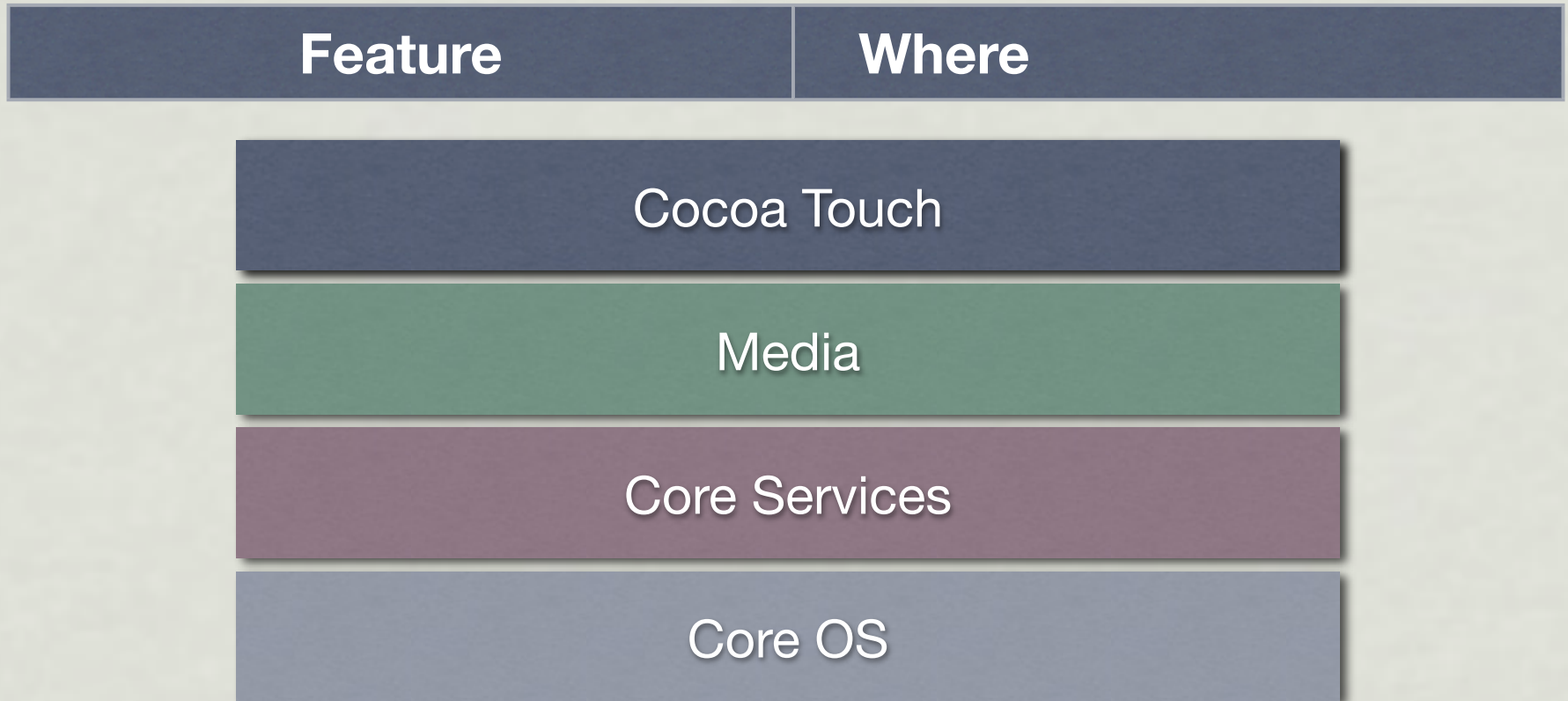
Cocoa Touch

Media

Core Services

Core OS

Technology Layering



Cocoa Touch



| Feature | Where |
|--|--|
| User Interface Classes | UIKit framework |
| People Pickers and Address Card UI | AddressBookUI / AddressBook frameworks |
| Email Composition UI | MessageUI framework |
| iPod media picker | MediaPlayer framework |
| Camera / Video access and picker | UIKit - UIImagePickerController |
| Embeddable maps | MapKit framework |
| Device Accelerometer | UIAccelerometer |
| Device Info identifier, orientation battery, proximity | UIDevice... |

Media



| Feature | Where |
|-------------------------------|---|
| iPod Library Access / Queries | MediaPlayer framework |
| Audio and Video | Various Places |
| Simple video player UI | MediaPlayer framework |
| iPod content playback | MediaPlayer framework |
| System sound APIs | AudioServices framework |
| Queue based player | AVFoundation - AVAudioPlayer |
| Microphone | AVFoundation - AVAudioRecorder |
| More complex stuff | ... |
| Graphics 2D / 3D | UIKit, CoreGraphics, OpenGL ES frameworks |

CoreServices



| Feature | Where |
|---------------------------------|--------------------------------|
| Address Book database access | AddressBook framework |
| Location / GPS Information | CoreLocation, MapKit framework |
| Compass / Heading Info | CoreLocation |
| In-App Purchases | StoreKit framework |
| Apple Push Notification Service | ... |
| Network Reachability | ... |

Core OS



| Feature | Where |
|---------------------------------|--------------------------------------|
| Networking | Various Places |
| General high level abstractions | Foundation or CFNetwork frameworks |
| | NSSocket, NSURLRequest/Response, ... |
| Service discovery | NSNetServices, CFNetServices |
| Blue-tooth p2p connectivity | GameKit |
| Security / Keychain | Security framework |
| External Accessories | ExternalAccessory framework |
| Network Reachability | ... |
| | |

Reading

- iPhoneOSTechOverview.pdf
 - About iPhone OS Development – Chapter 1
 - iPhone OS Technologies – Chapter 2, p.17 - 24