Domain Track Presentation Status Update 1

Began to research how software quality means in Mobile App Development:

* Quality is defined by being able to load on the user’s device and run reliably
* Fast response times, especially if loading from the Internet
* Interruption Testing: Reponses to Phone call, text message and other forms of I/O while the app is running.
* App performs on the device the same way as it did inside the simulator.

Important Quality Attributes:

* Cross platform compatibility
* Compatible with submission guidelines of the target platform’s app store
* Be sure to make sure app is written in a firmware API that is widely used

Processes to guarantee quality:

* Functional testing
* Install testing
* Mobile Protocol Stack Testing
* Performance Testing
* Stress Testing
* Usability Testing

Metrics used:

* Memory usage
* Network usage
* Number of test cases executed
* Number of defects and classification
* Test coverage (# of test cases executed/# planned)

Suggested processes:

* Outline a testing plan
* System testing
* User Interface testing
* Security testing
* Follow and track testing metrics

Suggested Metrics:

* Test cases failed vs. Passed
* No Release Blockers test case failures
* Total number of test cases
* Key user scenarios are tested thoroughly
* Sensitive information is secure

Successes and failures:

* Success of the iOS platform
* Mostly Successful Android platform
* So-so Success of Win Phone platform
* Failure of webOS
* Somewhat failure of Symbian

Standards and regulations:

* iOS: Apple’s guidelines and app approval process
* Android: Google’s Android Market process
* Win Phone: Microsoft’s App approval process

Problems with Mobile App Development:

* Hardware Fragmentation
* Different versions of firmware
* Limitations of APIs
* Vendor imposed restrictions