RA Doc In General

- Be brief.
  - >30 pages probably means you did something wrong
  - Don’t include everything (shotgun approach)
  - “Crispness” and conciseness are important
- Be careful
  - Spelling counts
  - Clarity counts
    * use pictures and diagrams as needed

RA Doc Overview

- 2. Overview
  - High level description of requirements
    * Suitable for someone who wants a “executive view”
    * Hit important points, and main features
    * Leave out detailed scenarios.

RA Doc Requirements

- 3. Requirements
  - Subdivide into sections covering major portions of requirements
    * Make logical divisions
      * by function, or by case, or by something that makes sense
  - Provide prose detail of system requirements
  - This is where the detailed scenarios are placed

RA Doc UML Analysis

- 4. UML Analysis
  - 4.1 Use Cases
    * Provide Use Cases for important requirements paths
    * Make sure they are interally consistent
    * And consistent with class diagrams
**UML Analysis - Class Model**

- 4.2 Class Model (Object Model)
  - Class diagram itself.
    - should be relatively complete, without implementation detail classes
    - should include a description of the model
  - Perhaps an object diagram to show common instantiations
  - Data dictionary to define terms, attributes, methods, relationships

**RA Doc Dynamic Model**

- 4.3 Dynamic Model
- Dynamic model contains state diagrams and sequence diagrams
- One state diagram per important class
  - Composite states can be exploded on separate pages
  - Some classes don’t require dynamic models
- Include sequence diagrams
  - Typical scenarios
  - Particularly difficult scenarios

**RA Doc - SPIN Analysis**

- 5.0 Promela Models
- 6.0 SPIN Analysis
- Contains verification of part of the dynamic model
- Selected set of scenarios
- More when we get to model checking