Amanzi Requirements Tracker

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
CCS-2: Computational Physics and Methods

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Progress Report
Object Model
Python Code

GitHub
Completed
Next Up
Big Picture

GitHub Repo

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Completed

- Object Model - Basic
- Python object: Book()
- Writing to XLSX
- Forensics

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Next Up

- Book attribute and methods
- Python object: chapter
- Python object: section
- Python module: simulate parsing

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Primary Actions

1. Harvest (first parse of *.rst)

2. Process (full parse, load myBook)

3. Publish (write XLSX)

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Primary Actions: Details

1. Harvest (first parse of *.rst)
   1.1 Specify *.rst
   1.2 read().splitlines()
2. Process (full parse, load myBook)
3. Publish (write XLSX)

Components

- Book
- Book has chapters
- Chapter has sections
- Section has requirements
- Do Chapters have requirements?

Foundation: Book

1. chapter: Initial Conditions
   1.1 section: Assigned Regions
   1.2 section: Liquid Phase
       1.2.1 required: liquid_component
       1.2.2 optional: geochemistry_component
   1.3 section: Solid Phase
       1.3.1 required: geochemistry
       1.3.2 optional: mineral, geochemistry
2. chapter: Boundary Conditions
   2.1 section: Assigned Regions
   2.2 section: Liquid Phase
   2.3 section: Solid Phase

Object: Book

```python
# # classes
class Book:
    """parsed, structured contents of #.rst file"""
    def __init__( self, file_name, file_path, number_lines,
number_sections ):
        self.file_name       = file_name
        self.file_path       = file_path
        self.file_source     = file_path + file_name
        self.number_lines    = number_lines
        self.number_sections = number_sections
```