

# SBML Test Suite Development

April 7 2008

SBML Hackathon, Stellenbosh,  
Kimberly Begley

# Overview

- Application back end logic
- Web Test Suite Application
- Stand Alone Test Suite Application

# Test Case Selection

- SBML test case model file:
  - Synopsis
  - ComponentTags
  - TestTags
  - Levels
  - TestType

# Tag Dependencies

- Different tags are supported by different SBML versions
- If “reaction” tag is selected
  - Species must be selected
  - Meaning compartment must be selected

# Upload Results

- Upload zipped file of csv files
- Csv file names must end in nnnnn.csv where nnnnn is the test case
- Zipped file is extracted into a temporary directory and each file is iterated through and processed and deleted

# Processing of Test Results

- Error checking of user result file
- Differences between control test case result and user results are calculated
- Absolute and relative allowable differences are read from settings file and compared to the calculated difference

# Calculation

If the calculated difference is greater than the absolute allowable difference

$$|A - B| > 0.00001$$

OR

If the calculated difference is greater than the relative allowable difference

$$|A - B| / |A| > 0.00001$$

**The Test Fails**



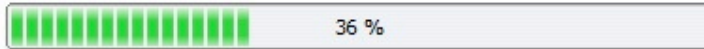
Configuration

Test/run

Test case catalog



Run



36 %



Stop



Reset

Passed: 734 (96.7%)

Failed: 21 (2.8%)

Skipped: 4 (0.5%)

List view

Map view

Listing:  Passed  Failed  Skipped

- 0001
- 0002
- 0003
- 0004
- 0005
- 0006
- 0007
- 0008
- 0009
- 0010
- 0011
- 0012
- 0013

Details

Case 0123: variable volume combined with rate rules ([click for detailed description](#))

Result:

Difference plot ([click to enlarge](#)):

