# Weekly Report

#### **Team Dec 15-12**

**Week 5:** Sep 21<sup>st</sup> - Sep. 27<sup>th</sup>

**Advisor** Dr. Rajan

Client Dr. Rajan

**Team Members** Dalton Mills Webmaster

David Johnston Team Lead

Trey Erenberger Key Concept Holder

Project @PaniniJ

# Weekly Summary

Our priority this week was to determine how the Static Check module would fit into the existing project such that it could be easily expanded when more complicated checks are desired. We converted an existing checker class as the entry point into this module which allowed us to easily integrate the new static check module into the project. From there we worked as a team over google hangouts to implement the new checking system as well as a mechanism for reporting errors in a robust way.

We also took this week to identify the specific static checks that we want to implement for the 0.1.0 release.

- 1. Capsule Template only implements valid signatures
- 2. Capsule Template does not extend anything
- 3. Capsule Template has a well-formed init() method
- 4. Capsule Template does not contain a constructor
- 5. All fields of Capsule type must have @local or @imports annotation
- 6. Capsule Template does not have a main()
- 7. Active Capsule contains valid run()
- 8. @Signature annotated interface has valid name
- 9. @Capsule annotated class has valid class name
- 10. All interfaces implemented by Capsule Template are Signature Templates
- 11. Active Capsule has zero procedures
- 12. Capsule Template has not variadic parameter procedures
- 13. Capsule Template does not contain inner class
- 14. Capsule procedures must be declared public

## **Technical Progress**

We utilized the collaborative meeting on Saturday to both design and implement the framework for adding static checks for the Panini programming model. We modified the CapsuleChecker class to serve as the apparatus for this module. A summary of the changes is mentioned in the preceding section. The progress in this week enables us to implement the remainder of the static check functionality that is a core component for the 0.1.0 release.

## Meetings

### **Bi-Weekly Advisor Meeting**

Members Present: All

Additional Participants: Dr. Rajan

Date & Location: Wednesday 22 of September; Atanasoff 216

Minutes:

Discussed the need to compile a final list of static checks for 0.1.0

 Reaffirmed the need to enhance the code base with example usages of the @panini annotations/programming model

## **Weekly Collaboration Meeting**

Date & Location: Saturday 26 of September; Google Hangouts

Members Present: All Additional Participants:

#### Minutes:

- Set up the framework for the Static Check module
- Refactored the current Capsule Checker class into the framework mentioned
- Collaboratively programmed on implemented the design for the static check module
- Implemented the Capsule Suffix static check successfully
- Assigned the remaining checks to individuals to work on in the coming week

## **Individual Contributions**

### **Trey Erenberger**

- Meetings Attended: All
- Topics Researched:
- Code Written:
- Misc:

#### **David Johnston**

- Meetings Attended: All
- Topics Researched:
- Code Written:
- Misc:

#### **Dalton Mills**

- Meetings Attended: All
- Topics Researched:
- Code Written:
- Misc:

# **Individual Hourly Contributions**

**Trey Erenberger** 5 Hours

**David Johnston** 7 Hours

**Dalton Mills** 5 Hours

## Tentative Plans for Week 6

Our plans are to implement the static checks that we have posted on github issues. These have been assigned to specific members of the group.