**CSFV**

**University of Washington**

**Monthly Technical Report for March 2013**

Reporting period: 1 March 2013 – 31 March 2013

Date of Report: 15 April 2013

Project Title: Verigames

Contract Number: FA8750-12-C-0174

Program Manager: Dr. Drew Dean, DARPA I2O

Submitted by:

Michael Ernst / Zoran Popović

Computer Science & Engineering

University of Washington

AC101 Paul G. Allen Center, Box 352350

185 Stevens Way

Seattle WA 98195-2350

Fax: (206) 543-2969

E-mail: {mernst, zoran}@cs.washington.edu

**Distribution List**

DARPA/I2O

ATTN: Drew Dean

team-dean@darpa.mil

3701 North Fairfax Drive

Arlington VA 22203-1714

AFRL/RITA

ATTN: Dilia Rodriguez

Dilia.Rodriguez@rl.af.mil

525 Brooks Road

Rome NY 13441-4505

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# Verigames - Project Progress

**1. Expected Progress This Month**

* Complete work on annotations in qualified types.
* Complete integration of the dataflow framework.
* Determine how AST paths will be stored in the XML.
* Continue creation of type systems.
* Continue iteration on new representation of game levels.
* Decide on representation of map.get in new representation.
* Pick finalists in TopCoder mini-site competitions.
* Continue hiring process.

**2. Accomplishments This Month**

* Annotations in qualified types is finished, barring some bugs.
* Continued, but did not complete, integration of the dataflow framework.
  + Commenced system testing on plume-lib and daikon subject programs.
  + The integration will be finished as soon as those programs type-check using the new dataflow framework.
* Continued creation of type systems:
  + Continued units type system and began formatter type system.
  + 12 of 25 type systems are now done from the PL side, though they still need to be tied into the Games Solver so that each can be used to generate a game level.
  + Additionally, certain type systems, such as Lock, may require new game mechanics in order for them to be correctly represented. We are working on how those new systems might be represented.
* Continued iteration on new representation of game levels.
  + Particular focus on finding and refining the right method to lay out elements, such that complex interrelationships can be easily understood by players.
  + Because optimal level layout can be an extremely difficult problem as the complexity of the program increases, we are considering letting players themselves modify the layout as they please, and potentially share layouts with each other. We believe that optimizing paths to minimize overlaps can be a fun activity– as shown in games like Flow Free Bridges, which is widely popular and has been cloned several times. Additionally, such a mode could encourage teamwork and cooperation to solve levels.
* We have begun integrating game levels with the Resource Allocator.
* We have looked at TopCoder’s user authentication systems and are going to start integrating with that in the next month.
* Picked finalists in TopCoder mini-site competitions.
* Continued hiring, with five candidates interviewed and one offer made.

**3. Deliverables Submitted**

N/A

**4. Publications Made**

N/A

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**5. Meetings**

* Weekly UW Verigames full team meeting
* Weekly UW CGS design meeting
* Weekly integration conference call

**6. Issues or Concerns**

N/A

**7. Plans for Next Month:**

* Continue integration of the game with the Resource Allocator.
* Integration of the dataflow framework into the Game Solver.
* Determine how AST paths will be stored in the XML.
* Continue creation of type systems.
* Continue iteration on new representation of game levels.
  + Explore possibility of letting players alter level layouts themselves.
  + Decide on design of map.get in new representation.

**8. Financial Summary**

Projected expenditures for the month were originally estimated at $124k. Actual expenditures were $125k, however, indirect costs were over charged on the subcontract and the budget should be credited for $12k in April.

CSE Fifth Year Masters student Forrest Coward was added to the project for Spring. All other staff and student funding remains the same.

Two invoices for Julia Srl cleared this month, in the amounts of $8,180 and $21,836. Plans are progressing to increase the budget for Julia Srl for their increased input on the project.