**CSFV**

**University of Washington**

**Monthly Technical Report for June 2013**

Reporting period: 1 June 2013 – 30 June 2013

Date of Report: 15 July 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

**Unclassified - For Official Use Only**

# Verigames - Project Progress

**1. Expected Progress This Month**

* Integration/deployment:
  + Fix bugs around sign-in and mini-site integration if necessary.
  + Create documentation for integrator.
* Game client:
  + Refine visual design of boxes and lines to make rules intuitive to players.
  + Optimize rendering in game client to support larger boards.
  + Begin limited playtesting.
* PL/Verification:
  + Get large boards generated from code.
  + Integration of the dataflow framework into the Game Solver.
  + Finish Lock type system and move on to other type systems.

**2. Accomplishments This Month**

* Integration/deployment:
  + Worked through issues with login with TopCoder.
  + Collected of information for documentation RunBook. We have draft information for running the game and are working on installation instructions.
* Game client:
  + Integrate artwork depicting audio-style “plugs” which we feel will be more intuitive for players.
  + Optimized rendering in game client and attempted to integrate support for rounded rectangles.
  + Iteration and polish of game UI including menus and scoreboard and emphasized clashes with a particle effect than can be seen even when zoomed out.
  + Updated tutorial with notes from first-time players (from an internal-only informal playtest), such as adding a third tutorial level to instruct players about bonus points for satisfying narrow outgoing edges and wide incoming edges, and a fourth tutorial level about optimizing between bonus points and conflicts.
  + Added sound and music.
  + Added Flash preloader (a loading bar when launching the game) for bnetter user experience.
* PL/Verification:
  + Processed a program of ~8,000 lines of code and converted it to a game level.
  + Lock type system completed (but not yet visualized in game form).

**3. Deliverables Submitted**

* The Pipe Jam game is now integrated with the Verigames site login and the RA, is launchable from the Verigames project site, and includes a set of tutorial levels.

**4. Publications Made**

* N/A

.

**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:**

* Integration/deployment:
  + Working with TopCoder, address all bugs around sign-in and cookies.
  + Create “not signed in / RA is down” flow. This will consist of the tutorial levels and some yet-to-be determined number of pre-baked levels built into the game.
  + Finish RunBook documentation for integrator.
* Game client:
  + Begin regular playtesting with real players.
  + Visual polish on graph representation and UI.
  + Work needed to maintain the “classic” pipes view, with the idea of testing “classic” vs. “Grid world” representations.
  + Begin integration with mini-site social features.
  + Output an annotated XML file from game results.
* PL/Verification:
  + Get larger (> 8,000 line) boards generated from code.
  + Convert annotated XML files into .jaif files
  + Insert .jaif results into original source code (this requires some bug fixing and enhancements to the Annotation File Utilities)
  + Verify that the annotated source code type-checks.
  + Generate game constraints for all generics-related type constraints.
  + Integrate the improved dataflow processing.
* For both Game and PL teams, we need to design and implement handling of "non-defaultable locations" for which writing no annotation is different than any annotation one might write (class and type parameter declarations, and type argument uses).
* Prepare for PI Meeting.

**8. Financial Summary**

June: Projected expenditures for the month were originally estimated at $106k. Actual expenditures are $93k. Note that numbers are not yet official as UW is currently closing a biennium. Grant & Contract Accounting will not have an invoice available until final closing in August.

Staff and student funding remains the same. Invoice for Julia Srl in the amount of $33,847 has cleared. This completes their Purchase Order/Subcontract for Phase 1 of the project. We are in the process of setting up a new PO/Subcontract for Phase 2.