Integration and Regression Testing Log
Software Engineering Project (SEPR)

Team "EEP"

Richard Cosgrove, Yindi Dong, Alfio E. Fresta, Andy Grierson, Peter Lippitt, Stefan Kokov
Department of Computer Science
University of York

Development work was split into two areas:
1. Replay Mode
2. Connection Modifications

Each area had its own branch using Git. Before a branch could be merged back into the master branch, the following conditions had to be met:

1. All required new features for this branch are implemented.
2. All new unit tests had been written that were required.
3. The master branch has been merged **into** this branch.
4. **Regression Testing -** All tests passed - we configured Git such that it would not allow a branch to be merged into master until all previous unit tests passed..

Once these conditions had been met, we can be satisfied that integrating the new functionality should not break the game. Once they have been integrated this can be verified by means of black-box system testing.

Integration Log

Branch	Implemented	New unit tests written	All of system's unit tests passed	Test Status
Replay Mode	Done	3.1, 3.2	True	Passed - branch merged
Connection Modifications	Done	1.1, 1.2, 1.3, 2.1	True	Passed - branch merged

Evidence of testing branches via Travis (https://travis-ci.org/SEPR-EEP/taxe-game-3)

The Extension report discusses how we used Travis as one of our development tools.

A branch with a red cross to the left of it would not be allowed by Git to be merged.

Regression Testing Evidence

Travis ensured that branches with failing unit tests could not be merged back into the master branch. However, before we even attempted to merge branches, we would run old unit tests using our IDE to ensure new features and changes had not broken existing units. The IDE can produce a report, to be used as evidence. For instance:

Package test

all > test

20	0	0	0.476s
tests	failures	ignored	duration

100%
successful

Classes

Class	Tests	Failures	Ignored	Duration	Success rate
GameTest	1	0	0	0.111s	100%
GdxFileTest	1	0	0	0.010s	100%
GoalManagerTest	1	0	0	0.218s	100%
MapTest	4	0	0	0.015s	100%
ObstacleTest	4	0	0	0.001s	100%
PlayerManagerTest	2	0	0	0.001s	100%
ResourceManagerTest	2	0	0	0.004s	100%
SnapshotTest	2	0	0	0.110s	100%
StationHelperTest	1	0	0	0.003s	100%
StationTest	1	0	0	0.003s	100%
TrainTest	1	0	0	0s	100%