**Missile Command**

Short Documentation

**1. Game goal.**

The goal of the game is to defend friendly buildings by destroying enemy missiles incoming from the sky. We can fire 10 missiles from each of three friendly missile launchers, by pressing buttons assigned to them. Destination of the friendly missile is set to the mouse pointer location at the moment of firing launcher. When friendly missile reaches its destinated position it explodes. Only explosions can destroy hostile missiles. Level ends when all enemy missiles are destroyed. With end each level:

* your destroyed missile launchers are activated again and refilled with missiles.
* enemy missiles becomes faster.
* number of spaceships per round increases.

Game ends when all of 6 friendly buildings are destroyed.

**2. Controls.**

Alpha 1 – use left missile launcher .

Alpha 2 – use middle missile launcher.

Alpha 3 – use right missile launcher.

**3. Game classes short explanation.**

**Scene manager** – manages displaying UI, starting and ending levels, ending game, calculating points and number of spaceships per round.

**Friendly missile launcher manager** – manages all Friendly missile launchers and refills them at the beginning of each round.

**Friendly missile launcher** – fires friendly missiles.

**Enemy missile launcher** – fires enemy missiles.

**Spaceship** – flies vertically from one side of the screen to the other and fires one missile per flight.

**Missile** – flies to its destination position, detects collisions, explodes, destroys other objects and sends events to Scene manager. Can be friendly or hostile. Friendly missile leaves marker on its destination point.

**Building** - detects collision and sends event to Scene manager about being destroyed.

**Mouse target** – gets mouse pointer world position

**Object pool** – pools objects, so they can be used multiple times.