

CS383 - Initial Unity Test Plan

Boundary Test #1:

The first boundary test I will be executing is on unit projectile damage against enemy units. When a unit fires a projectile, I want to test that it has the correct amount of damage set to it. With all 5 levels, if a projectile has the damage values of 1, 2, 4, 7, or 10 the test will pass, if the projectile has any other value it has varied from the boundary and will be considered invalid.

Boundary Test #2:

The second boundary test I will be executing is on unit health. When a unit takes damage, its health should remain within the boundaries of 0 to max health, or the unit should be destroyed if its health is taken to zero or less. Whenever a unit collides with a projectile, this test will pass if the unit's health is greater than 0 and less than max health. It will fail if the health is still maximum health, greater than maximum health, or less than or equal to zero if the unit is still alive past 0 hit points.

Stress Test:

The stress test I will be executing is on projectile generation. Since each actor will be able to fire projectiles, it is important to know how many we can generate without issue. I will be testing how many projectiles I can generate before I time out the Unity tester. Since each projectile should be destroyed on collision, I will be testing projectile firing quicker and quicker until the tester times out to see how fast I can generate projectiles.