

Deliverable #4 Documentation

Game Name:

Aftermath

Student Name:

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Brief System Summary:

The goal for the throwables system is to add a new weapon system to throw grenades and smoke bombs. These will explode after a time and either damage enemies/environment or create a smoke bubble to hide the player.

The goal for the heal/damage over time system is to expand functionality of the base damage system. This allows HOT-Pack items to heal the player over time and for certain damage instances to deal damage over time to the player/enemies.

What Went Well:

1. Applying the HOT was fairly easy. Adding a coroutine to repeatedly call GetHealed() after item pickup was straightforward and didn't cause too many issues.
2. Creating a new HOT item pack and new throwable weapons was easy due to all item packs sharing a scriptable object base as well as all weapons sharing a scriptable object base.
3. Adding functionality for the new throwables in ProjectileScripts was straightforward due to mostly using enums to determine how each projectile should behave. Adding new enums for each throwable allows the system to easily change behavior depending on the prefab-determined enum.

What Went Poorly:

1. Implementing the damage over time for player/enemies caused a bit of trouble due to how the DOT coroutine was being called. Initially the coroutine would stop once the object that called it was destroyed (explosives).
2. It was also tricky to implement the hiding mechanic for when the player is inside the smoke bomb radius. Initially there were issues using

OnTriggerEnter/OnTriggerExit as the sphere collider spawning and despawning weren't triggering the enter/exit functions.

Conclusion:

I am content with how expandable the systems were going into this deliverable, but some aspects such as certain params for methods could be set up more efficiently in the future. I will do my best to continue to design systems with expansion in mind for my future projects.