

BlastDroidz! Gameplay and System Analysis

Dashboard Team: Cole Astaire, Ramzi Mourtada, Uddipon Das

Data Team: Ryan Booth, Ilio Benvenuti

CS399-F19 Project 7

Project 6

A. Concept

B. Data

C. Dashboard

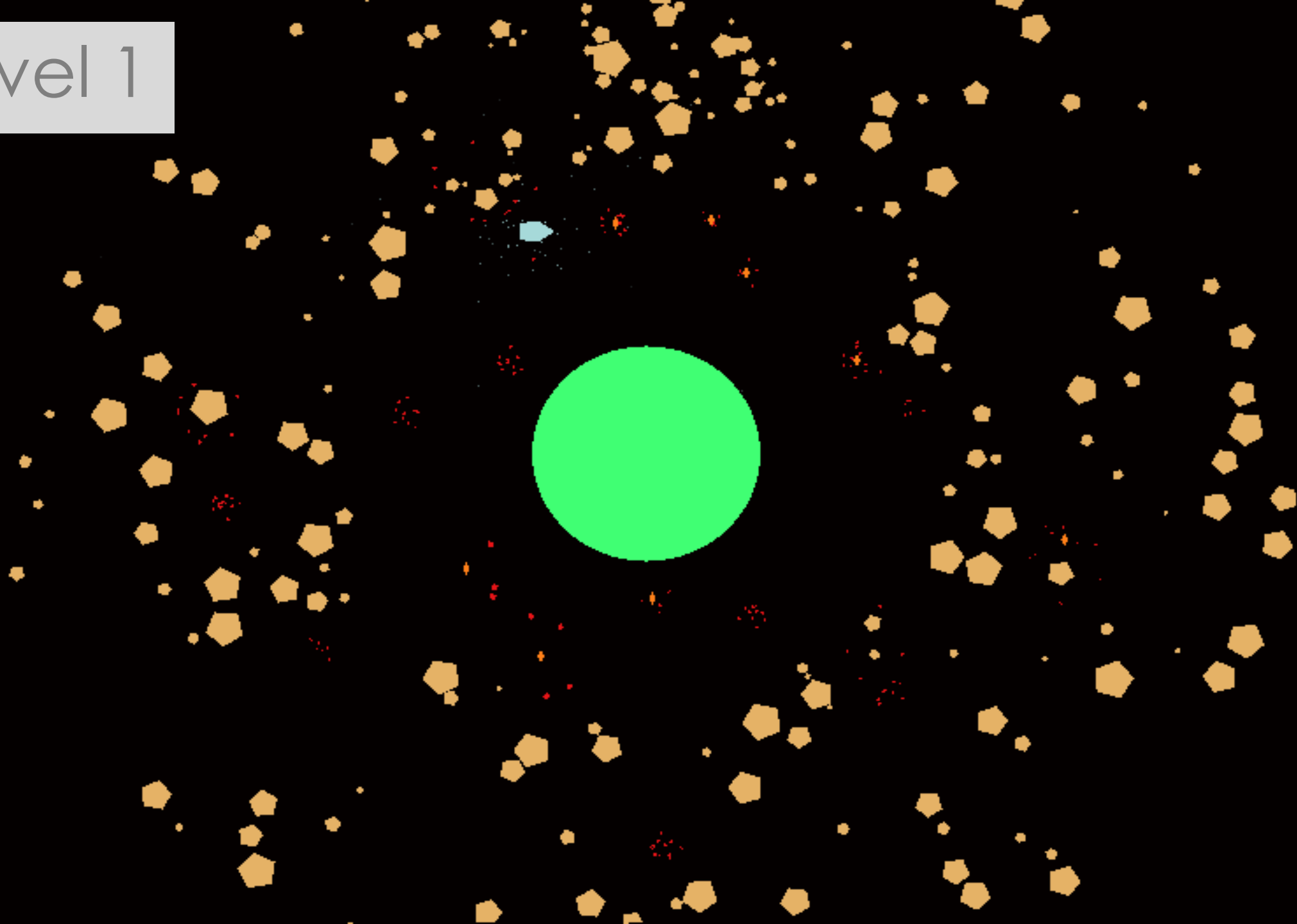
System Performance Analysis

- Explore the difference in performance over game progression.
 - Dynamic

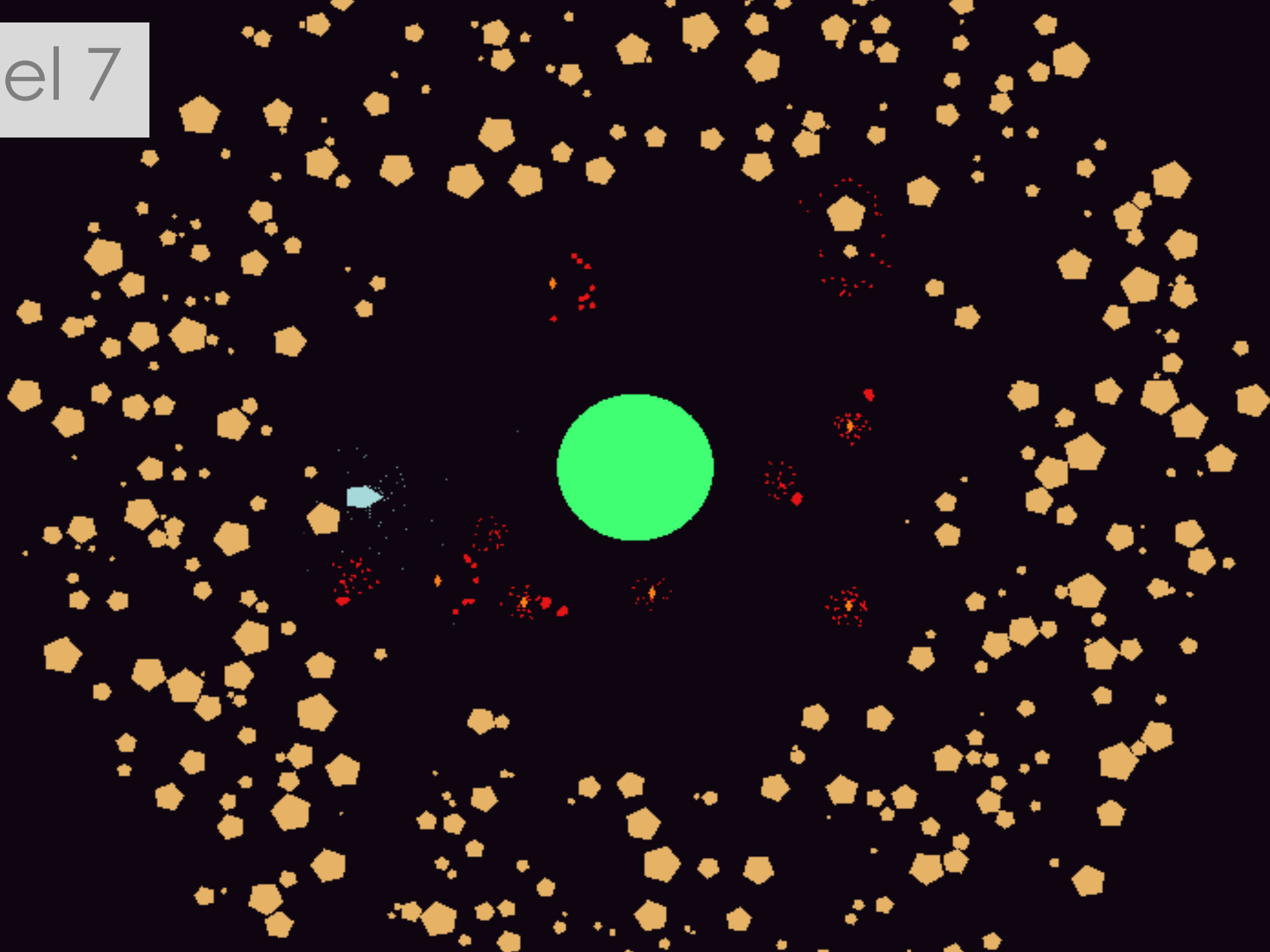
System Performance Analysis

- Graphics
- Physics
- Entities
- AI
- Input
- Sound

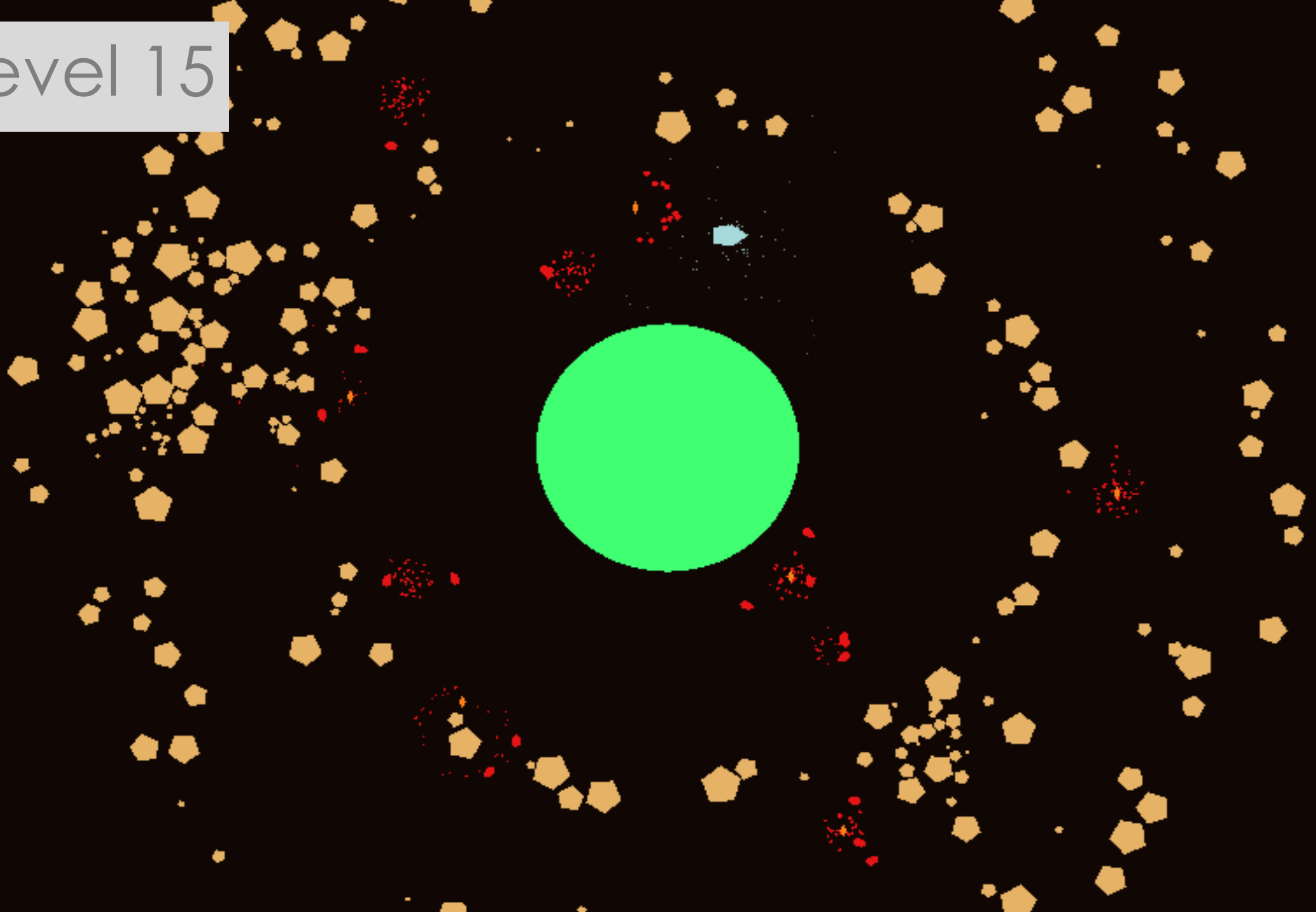
Level 1



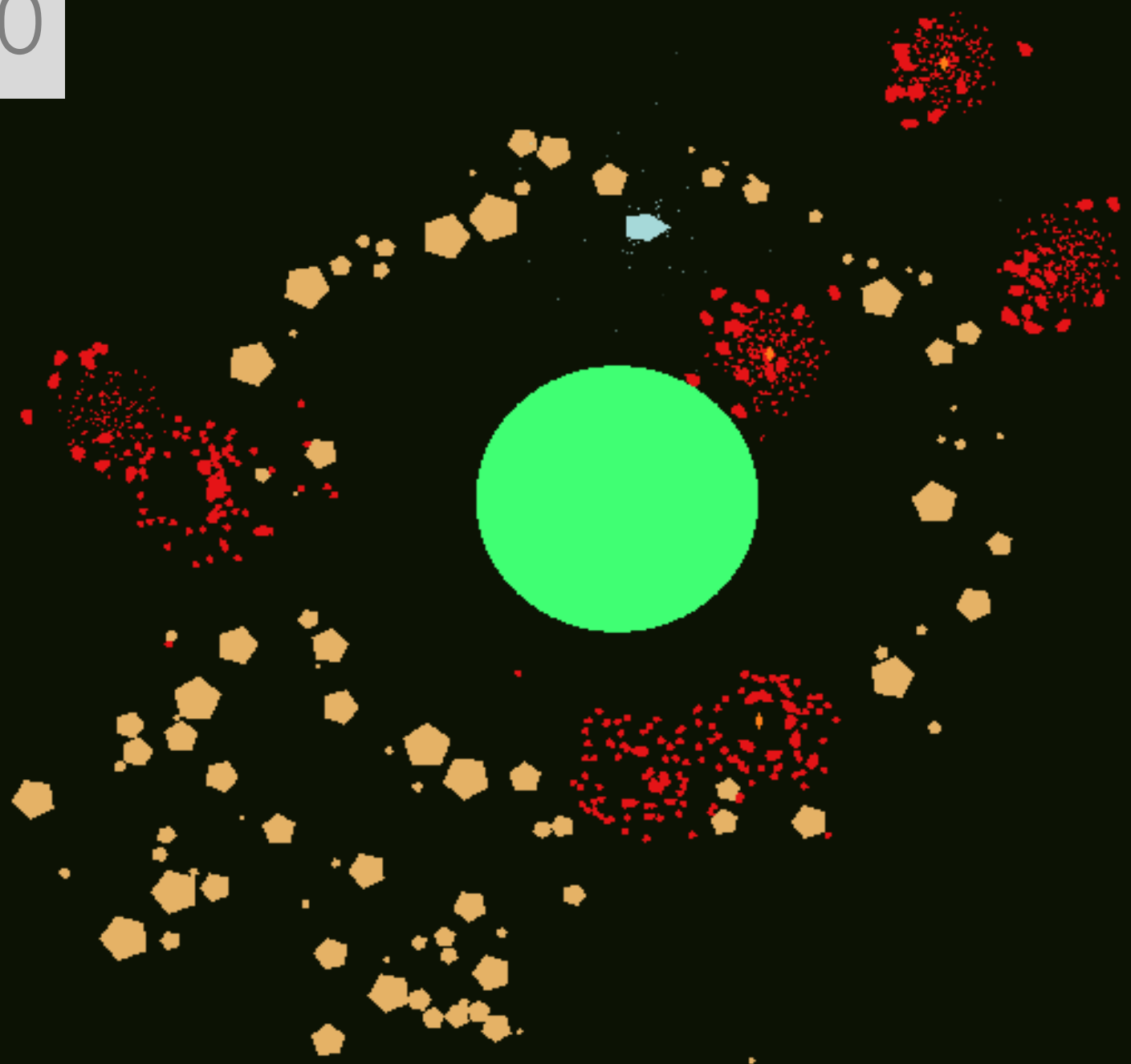
Level 7



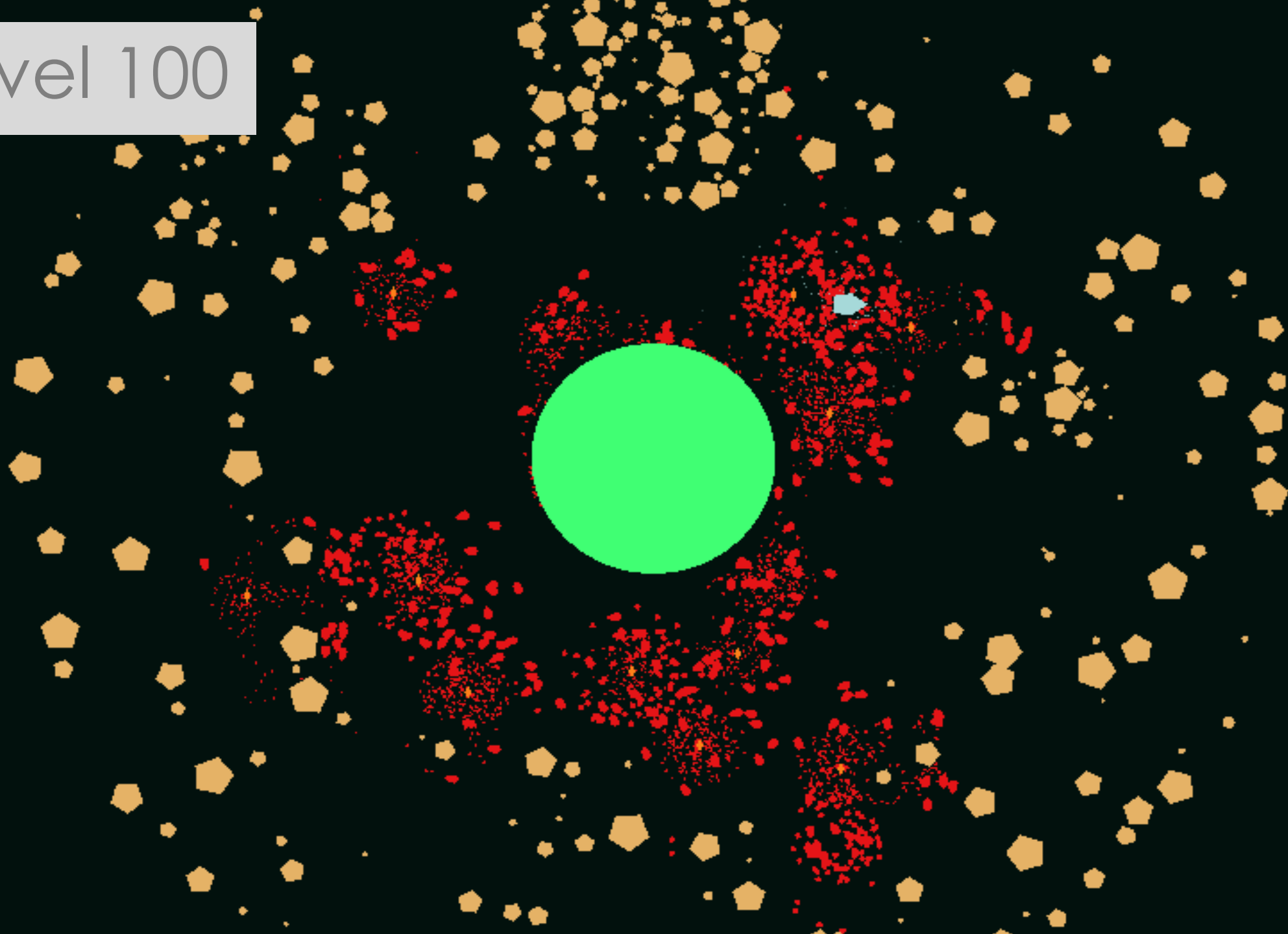
Level 15



Level 50



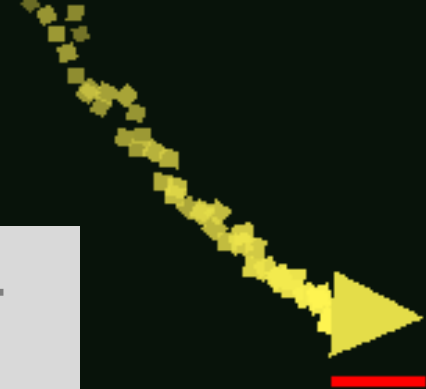
Level 100



Gameplay Analysis

- Visualize basic unit test data for evaluating gameplay balance.
 - Dynamic

Unit Test



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The LOGR

- Event-based local log pipeline.

```
static LogTypeData logTable[LOG_TYPE_MAX] =
{
    {"L_string", &LogString},
    {"L_contact", &LogContact},
    {"L_shot", &LogShot},
    {"L_spawn", &LogSpawn},
    {"L_death", &LogDeath},
    {"L_damage", &LogDamage},
    {"L_transform", &LogTransform},
    {"L_time", &LogTime},
    {"L_StatePush", &LogStatePush},
    {"L_StatePop", &LogStatePop},
    {"L_system_time", &LogSystemTime}
};
```

The LOGR

- Manages file stream.

```
void Log_LogData(LOG_TYPE logType, LogDataGeneric genericLogData, void *excessData)
{
    if (logFile != NULL)
    {
        fprintf_s(logFile, "%f,", Time_Get()->sinceStateStart);
        fprintf_s(logFile, "%s,", genericLogData.sourceFile);
        fprintf_s(logFile, "%s,", logTable[logType].name);
        (*logTable[logType].function)(excessData);

        fprintf_s(logFile, "\n");
    }
}
```

Data Format – System Performance

```
0.216317, Engine.c, L_time, 18.224918, 0.216317, 0.016729, 1.000000
0.216317, Engine.c, L_system_time, AI, 0.001834
0.216317, Engine.c, L_system_time, Input, 0.000151
0.216317, Engine.c, L_system_time, Sound, 0.000005
0.216317, Engine.c, L_system_time, Physics, 0.001874
0.216317, Engine.c, L_system_time, Entities, 0.001849
0.216317, Engine.c, L_system_time, AE_Graphics, 0.009570
0.232983, Engine.c, L_time, 18.241585, 0.232983, 0.016665, 1.000000
0.232983, Engine.c, L_system_time, AI, 0.001793
0.232983, Engine.c, L_system_time, Input, 0.000146
0.232983, Engine.c, L_system_time, Sound, 0.000005
0.232983, Engine.c, L_system_time, Physics, 0.001803
0.232983, Engine.c, L_system_time, Entities, 0.001791
0.232983, Engine.c, L_system_time, AE_Graphics, 0.009918
```

Data Format – Gameplay

```
26.125044,HealthComponent.c,L_death,EnemySimple,55,L_TeamEnemy,1553.33,4621.42,,,,
26.125044,ShotLogData.c,L_damage,(null),0,L_TeamEnemy,0,2.470875,EnemySimple,103,1970.400391,4545.592773
26.125044,HealthComponent.c,L_death,EnemySimple,103,L_TeamEnemy,1970.4,4545.59,,,,
26.125044,ShotLogData.c,L_damage,(null),0,L_TeamEnemy,0,3.536487,EnemySimple,61,1747.28064,4586.897461
26.125044,HealthComponent.c,L_death,EnemySimple,61,L_TeamEnemy,1747.28,4586.9,,,,
26.125044,ShotLogData.c,L_damage,(null),0,L_TeamEnemy,0,3.707935,EnemySimple,95,1923.926147,4664.442383
26.125044,ShotLogData.c,L_damage,(null),0,L_TeamEnemy,0,2.934891,EnemySimple,81,2042.730103,4728.420898
26.125044,HealthComponent.c,L_death,EnemySimple,81,L_TeamEnemy,2042.73,4728.42,,,,
26.125044,ShotLogData.c,L_damage,(null),0,L_TeamEnemy,0,1.891892,EnemySimple,179,2232.238037,4809.823242
26.125044,ShotLogData.c,L_damage,(null),0,L_TeamEnemy,0,2.435628,EnemySimple,189,1789.046997,5209.350098
```


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Demo

Questions/Comments