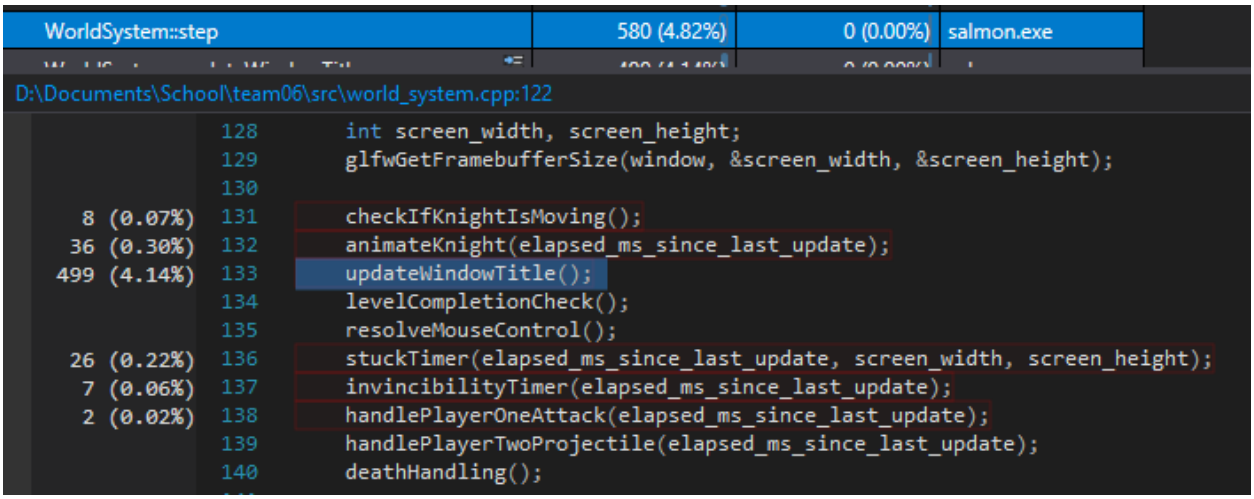
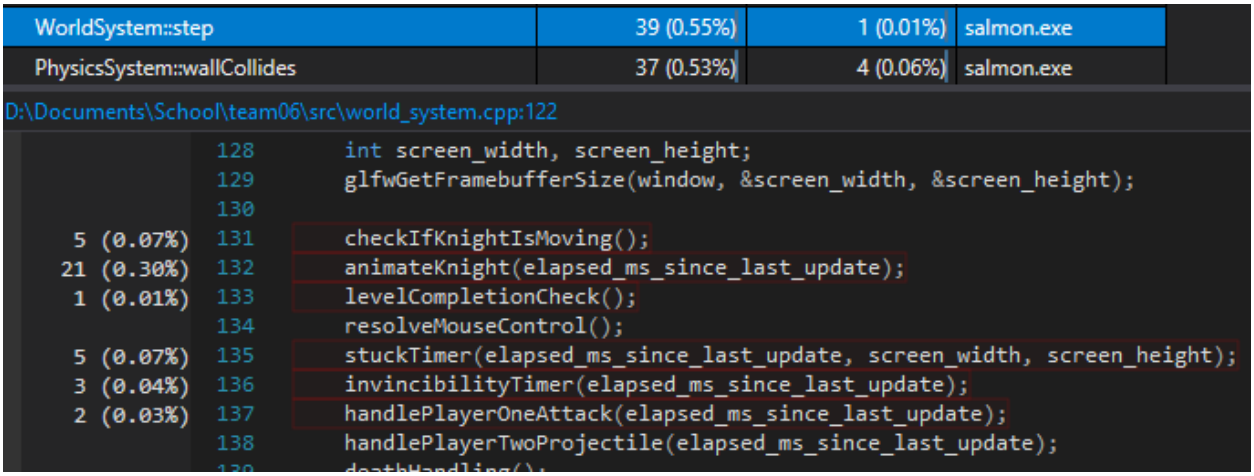
Performance Profiling Report

CPU

We noticed that the constant polling of our title led to some inefficiencies:



By only updating the title when necessary, we can improve performance:



Memory

There appeared to be a significant memory leak in our game:

Native Memory (salmon.exe)

Object Type	Count	Size (Bytes)
salmon.exe!Motion	17,390	486,920
salmon.exe!std::_Container_proxy	252	4,032
salmon.exe!std::_List_node<std::pair<unsigned int const ,unsigned int>,void *>	117	2,808
salmon.exe!std::pair<int,int>[]	65	1,040
char[]	34	2,112
salmon.exe!std::_List_unchecked_iterator<std::_List_val<std::_List_simple_types<std::pair...	33	33,933
salmon.exe!glm::vec<2,float,0>[]	22	560
salmon.exe!Entity[]	21	4,032
salmon.exe!ColoredVertex[]	11	5,976

The excessive memory usage in the heap appears to be caused primarily by a single line:

```
115    void AISystem::stepEnemyChase(float elapsed_ms) {
116        // update enemy chase so it chases the player
117        for (Entity entity : registry.enemyChase.entities) {
118            auto& enemyCom = registry.enemies.get(entity);
119            Motion& motion = registry.motions.get(entity);
120            Motion& motion_wz = *new Motion();
```