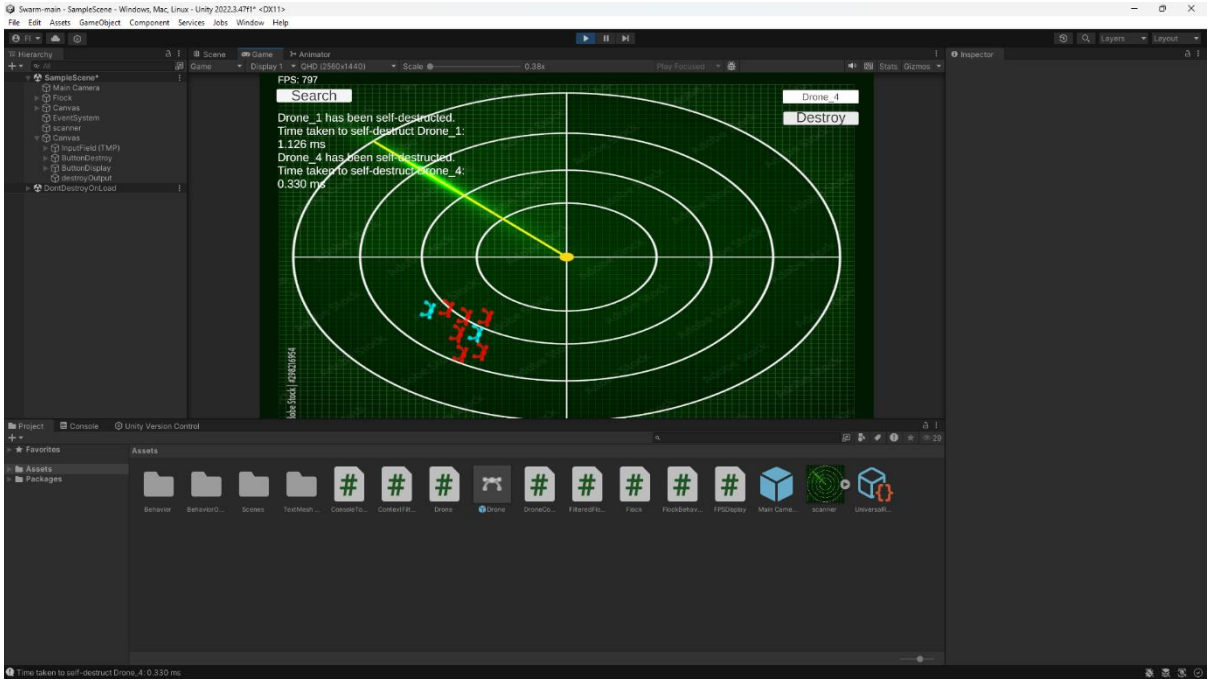
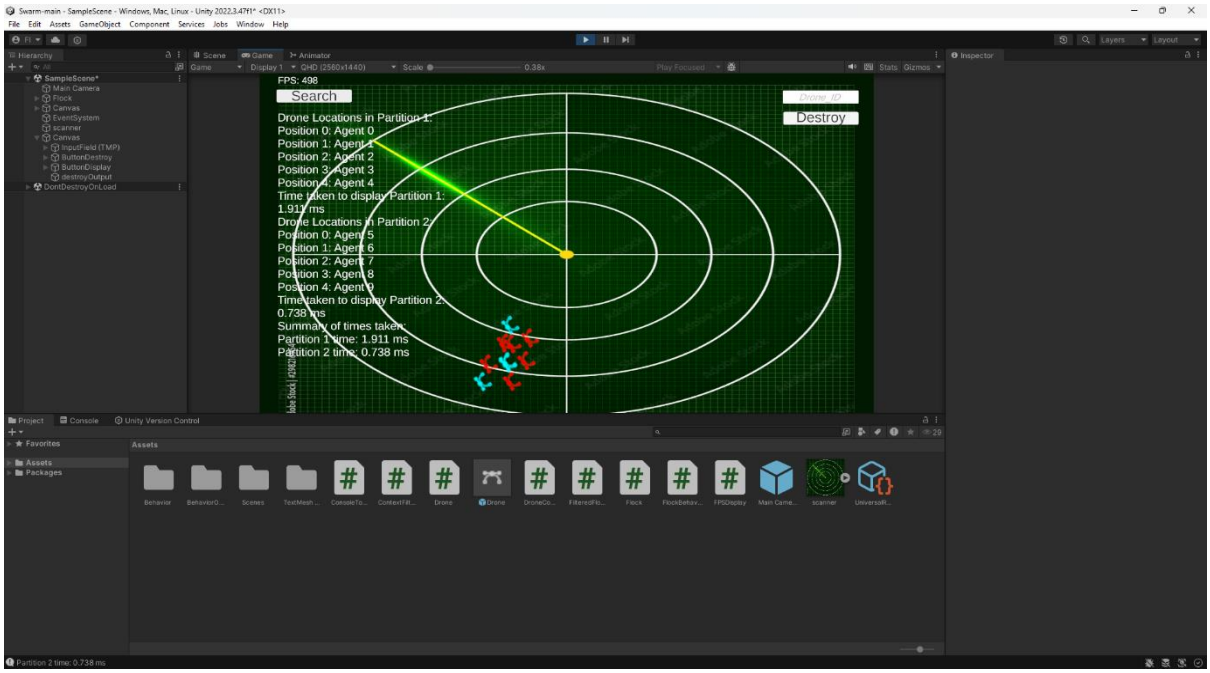
10 Drones

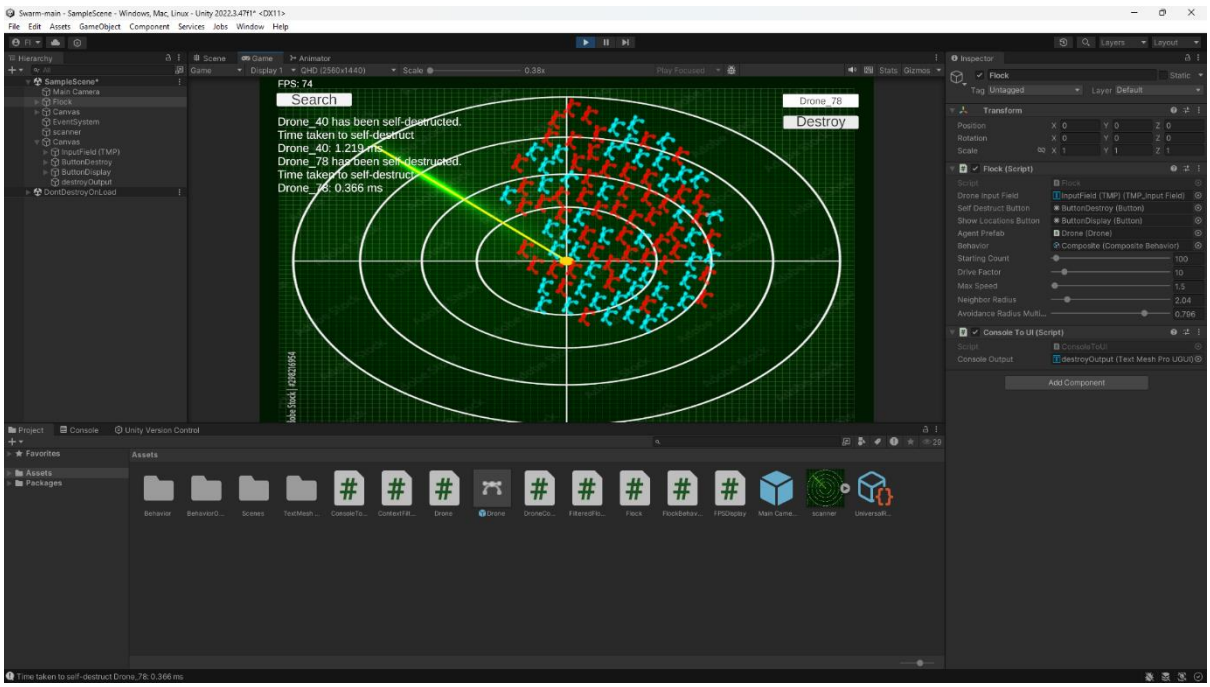


The simulation's remarkable frame rate of 797 shows that it functions fluidly and can manage real-time changes with little lag. This high frame rate, combined with swift self-destruct response times such as 1.126 ms for Drone_1 and 0.330 ms for Drone_4, shows that the system is highly optimized for fast processing, making it ideal for scenarios demanding rapid drone management and immediate feedback.The simulation's remarkable frame rate of 797 shows that it functions fluidly and can manage real-time changes with little lag. This high frame rate, combined with swift self-destruct response times such as 1.126 ms for Drone_1 and 0.330 ms for Drone_4, shows that the system is highly optimized for fast processing, making it ideal for scenarios demanding rapid drone management and immediate feedback.

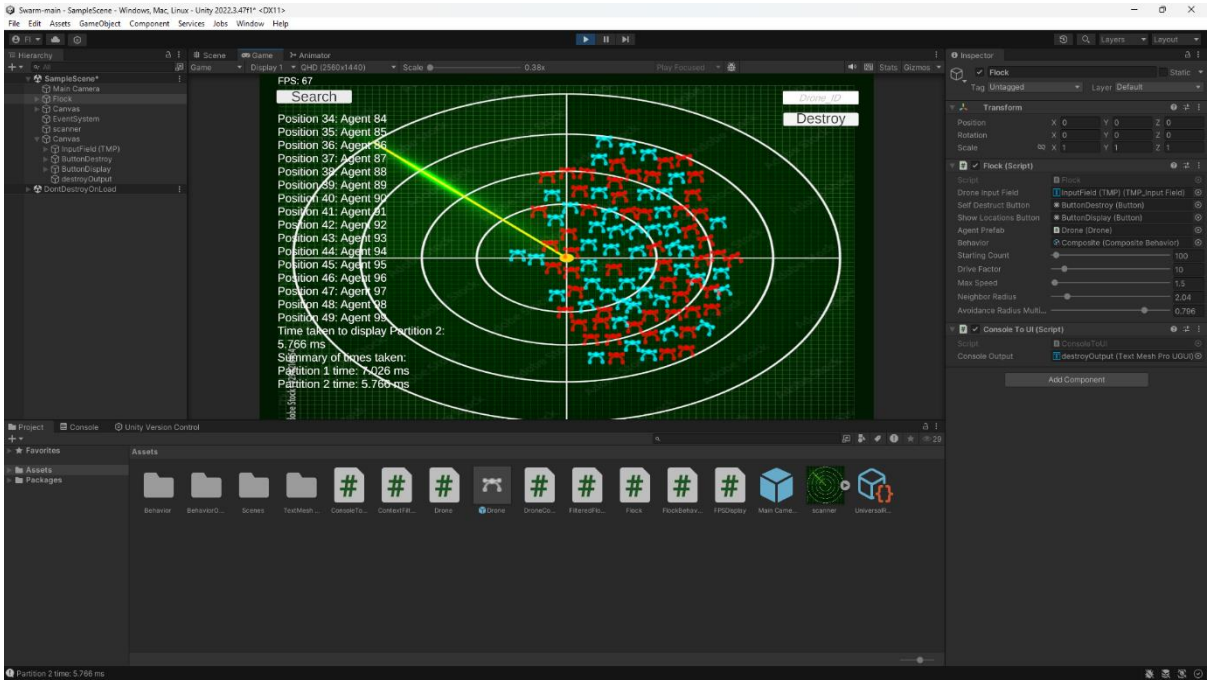


The simulation indicates an FPS of 498, which remains a high frame rate, enabling for smooth real-time tracking of drone positions over many partitions. The partitions' display times of 1.911 ms and 0.738 ms demonstrate effective data processing and prompt drone location updates. This performance illustrates that the system can manage several agents while providing timely feedback, which is critical for high-speed applications in a military simulation.

100 Drones

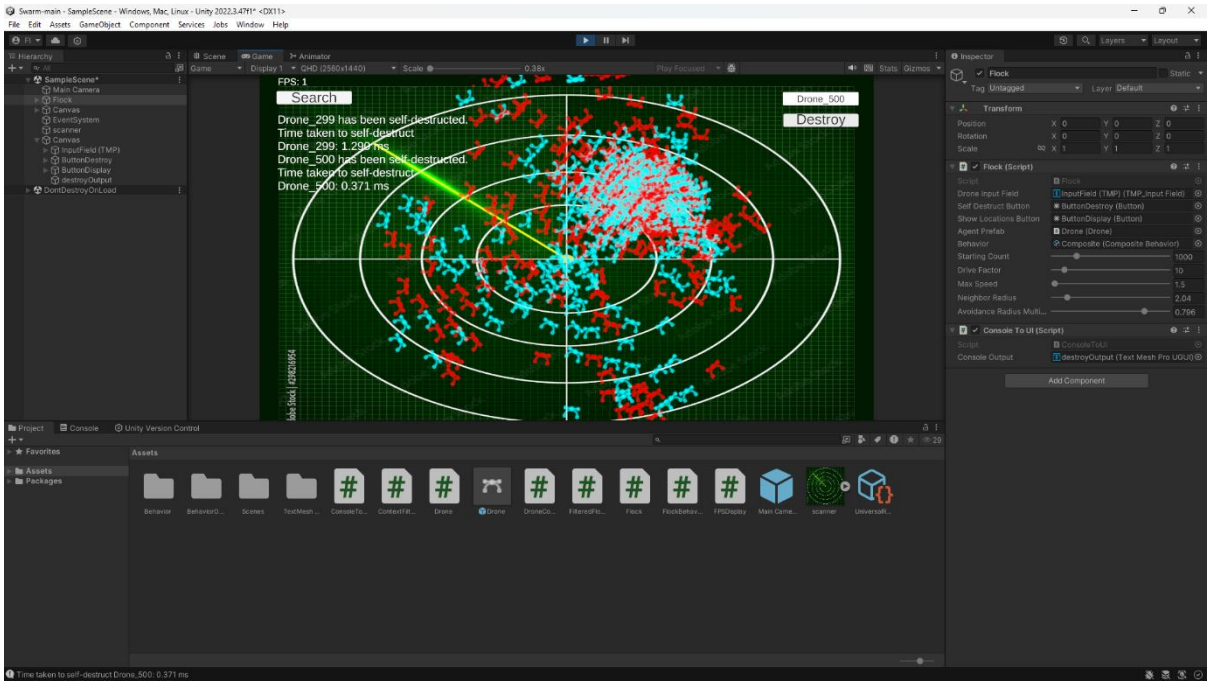


The simulation runs at 74 FPS, which, while lower than earlier examples, is still a consistent frame rate given the huge number of drones tracked and maintained in the radar display. Despite the increased agent count, the system handles self-destruct commands efficiently, as seen by Drone_40's 1.219 ms reaction time and Drone_78's 0.366 ms. This equilibrium between a large number of agents and an appropriate frame rate suggests good optimization for broader swarm management.

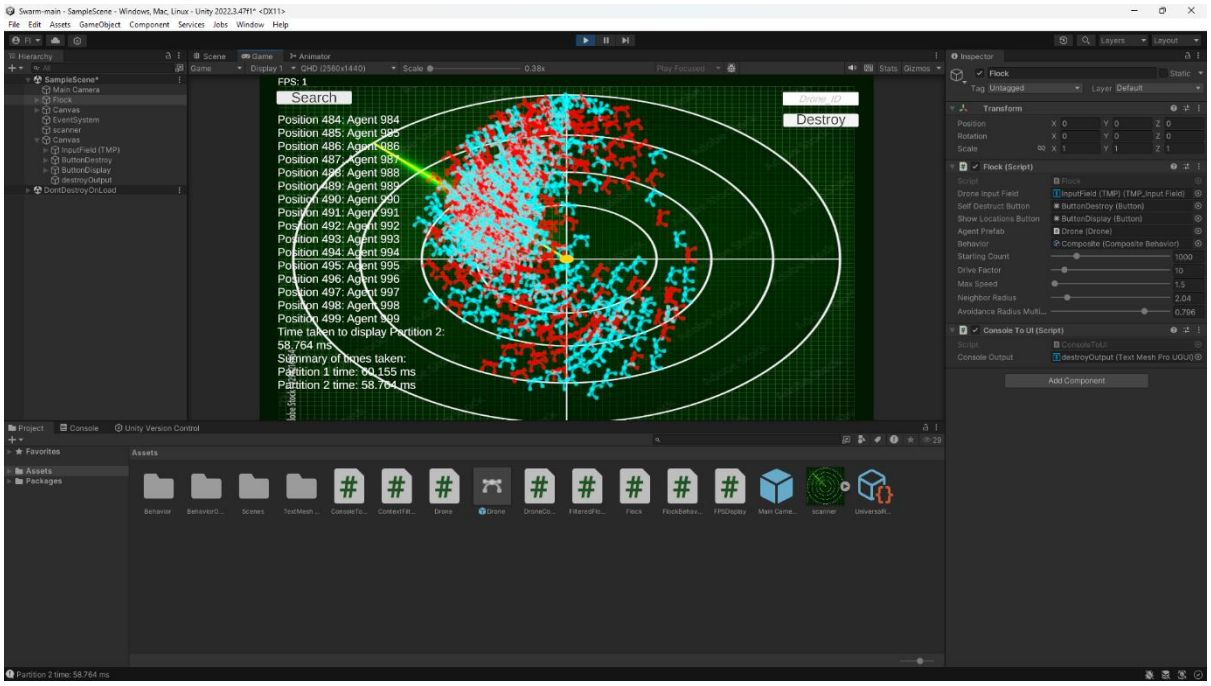


The simulation is operating at 67 frames per second, which is little slower than in earlier tests but still manages to operate reasonably well given the sheer volume of drones on display. The partition display times, such as 5.766 ms for Partition 2, show that even with more drones and agents being tracked, the system can handle the load adequately. Effective partition processing speeds guarantee timely drone location updates, which makes this setup appropriate for managing a large drone swarm while preserving fluid visual performance.

1000 Drones



The system is having trouble managing the current workload, probably because of the extremely high number of drones visible, as the simulation is operating at a remarkably low frame rate of 1. Despite the low frame rate, the system effectively processes commands, as Drone_299 and Drone_500 self-destruct in 1.290 ms and 0.371 ms, respectively. The performance decline indicates that, while the simulation can handle many agents functionally, visual performance is severely degraded, and tuning may be necessary for smoother operation at higher agent counts.



The high number of drones being tracked and controlled on the radar is causing serious performance concerns, as evidenced by the simulation's 1 FPS. The system's partition display times, such as 58.764 ms for Partition 2, indicate the high computational burden necessary to manage the enormous number of agents. The incredibly low frame rate indicates that the system cannot sustain fluid visual performance with such a big volume of drones, and additional optimization is required to manage this scale, even though the self-destruct command durations are still efficient.