

Game developers are searching for new ways of writing high performance code in order to adapt to trends in hardware development. Unity's relatively new DOTS system has introduced a new way, how to write code in order to fully exploit all aspects of modern processors, e.g. multithreading or SIMD instructions. The thesis focuses on creation of a generally-usable performance testing suite in order to benchmark the performance of various features of Unity DOTS system. Based on the results of the benchmarks a list of recommendations for writing high-performance solutions in Unity is compiled. The recommendations are evaluated in a real-time boids simulation.