

Strategy war games are a genre of computer games with the key element being control and navigation of units on the map. Despite having different approach to unit management, even the best-selling titles usually feature troubles during unit collisions solving with the collisions occurring either among units or between a unit and a natural obstacle. The library being developed in this thesis unifies all the types of approach to unit management being used nowadays and offers generic formation system, prediction, avoidance and/or solving of unit collisions on all levels and furthermore unit pathfinding on the map with both the nature and height profile of the path taken into account.