

Real-time strategy (RTS) is a very popular genre of computer games. However, commercial RTS games are closed and not extendable, which prevents the community from investigating RTS games on the source-code level and from tailoring them to their needs.

In the thesis, we present an illustrative, extendable open-source 2D RTS computer game for the .NET framework with an object-oriented architecture. It supports both single-player and multiplayer sessions with the possibility to play against computer players run by artificial intelligence. The system of AI is extendable with plug-ins.

The project contains entities (buildings and units) with their own artificial intelligence, which enables them to behave as (partially) autonomous agents. New entities and artificial intelligence for them can be added easily through a programmer-friendly interface as compiled DLL files.

The project also comprises a developed concept of resource management providing for easy design-extendability of resource gathering, transport and transformation.