

Title: Evolutionary Algorithm-Based Procedural Level Generator for a
Rogue-like Game

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Abstract:

Rogue-like games are genre with long tradition in game industry. One significant factor commonly associated with this genre is procedural level generation. The goal of this thesis is to design and implement a level generator for one concrete rogue-like game using evolutionary algorithms as main means of generation. Methods and results are then compared to non-evolutionary alternative algorithms, attempting to generate comparable solutions. The results seem to indicate that while evolutionary algorithms can be used to generate dungeons, practicality of this approach is for the most part limited.

Keywords: evolutionary algorithms, procedural generation, constrained
optimization, rogue-like