RPG Modules Generation

Project Proposal

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# 1. Description

Tabletop roleplaying games is a vast field for content generation. Even in a single setting, there is many possible variations of the world, of the events in this world, and of the places where these events take place. Usually, campaigns for games are being created manually. In this project, we want to create a generator of bounded areas, like villages or small towns, where locations are interconnected by story lines.

# 2. Methods

There are two types of assets for generation. Each of them require its own approach. For maps of generated areas we intend to extend the idea of situational generation, where each new element on a map is being created based on its surroundings. Story generation would require additional research, at the moment of writing I am unable to provide information regarding methods we will use.

Probably the most similar generation algorithm would be the map generator for Heroes of Might and Magic. It creates connected and playable maps with a huge amount of items, although sometimes you can see that it is obviously an automatically generated map. We will have to do some research on this and on some other similar algorithms: Diablo, Civilization, Transport Tycoon, etc.

# 3. Taxonomy

## Online vs. Offline

**Offline.** This project is intended to help game masters create assets for games beforehand.

## Necessary vs. Optional

**Necessary.** A storyline and a map are the main things in a game. They determine where events take place, and what these events are.

## Degree and Dimensions of Control

The process of map generation will be determined by initial parameters. A user should be able to set size of a settlement, its alignment (good/evil/neutral), dominant races, etc. Storyline would be generated based on these details.

## Generic vs. Adaptive

**Generic.** Being an offline generator, this tool cannot adapt to players actions. However, if game master use it in mid-game, it could adapt. Still, this would be adaptation based on game masters intentions, not players actions.

## Stochastic vs. Deterministic

**Deterministic.** Same input parameters should produce similar output.

## Constructive vs. Generate and Test

**Generate and Test.** Whether a module is playable or not could be only decided by a human. This generator could help create many campaigns for game master to select from.

## Automatic vs. Mixed Construction

**Mixed Construction.** The module generator will create a base, and a game master would use it as a reference for his own ideas and improvisation.

# 4. Materials

The most basic materials that are needed for this project are materials on game setting. In case of Dungeons and Dragons they are:

* Player Handbook (3 volumes) – describes all items, races and classes.
* Dungeon Master’s Guide – provides extra info on items, like price, etc.
* Bestiary – describes possible types of monsters and NPC that can be generated.

These books are shared in the Internet for the free access.

Apart from the setting information, we will need data on maps and stories generation, i.e. Diablo maps generation, Heroes of Might and Magic maps generation, No Man’s Sky assets generation.

# 5. Evaluation

The main criterion for evaluation should be players’ satisfaction of the module. For a more concrete evaluation, we can choose:

* existence of a goal to achieve in the module,
* availability of a goal,
* number of “dead ends” for players – the less, the better,
* obstacles on players’ path – if there are none then the game is probably boring.

# 6. Timeline

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# 7. Risks

There are a few issues we have or could possibly encounter in the future. One is related to our team, and the others relate to our project itself. There are two general areas our project supposed to cover: story and map. Each of these can go wrong.

## Team risks

Firstly, the most obvious risks for our team is lack of skills. None of us was involved in game development previously, so we need to adapt to the new environment. However, we have solid experience in software development in general. Thus, we intend to overcome this particular issue.

## Story generation risks

Secondly, there is a probability that generated story lines would be monotonous in terms of diversity of events, or intensity of those. In case the result of quests generation would be similar to that of World of Warcraft, where a player has limitless tasks for killing 10 monsters or collecting 10 items, the gaming experience would be bad for players because all quests will be pretty much the same. There is also another risk of a bad story, where quests are more or less diverse, but simply not interesting. This is also a big issue that we could have. We have to make sure that our generated quests are intense and can make players feel something.

## Map generation risks

Thirdly, there is a chance that we would end up with a map generator that generates bad maps. The resulting settlement could be unrealistic. Out method of choice could reveal itself unsuitable for generation maps for tabletop roleplay games. We will try to see these issues on the early stages and change our strategy accordingly.

## Time risks

Finally, time risks. All of the issues listed above could be overcame if we are given enough time. However, we have our deadlines. Therefore, there is a chance that we simply will not have enough time to deal with all the issues we encounter if we plan poorly. Thus, our main goal is to plan our timeline properly.