

# A Tactical RPG Engine

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October 3, 2011

## 1 Introduction

A Tactical RPG is a grid based game (like chess) where each player has a number of units(pieces). The players taken turns to moves their units. Each unit has attributes associated with it such as strength, and hit points that affect all the actions in the game. Like chess there are different kinds of units which affects how the unit moves and what action they can perform. A unit can attack other player's units, the goal of the game is usually to defeat all the opponents units.

The aim of this project is to create a engine which will take resources such as graphics, sound and rules of the game to create a runnable Tactical RPG.

## 2 Objectives

### 2.1 Primary

- A engine which take
  - The definition of character attributes and a magic/combat system.
  - The definition of a world broken up into the smaller environments.
  - The definition of simple story as a wrapper for the whole game and to manage the movement between environments from the start to the conclusion of the game

and create a playable tactic RPG.

- The engine will support:
  - **units** with associated attributes including.
    - \* Hit-points (which represent the health of the unit).
    - \* Strength.
    - \* Defence.
    - \* Move (The number of tiles the unit can move each turn).
  - **battles** which take place on grid and include:
    - \* A set number of **units** for each player.
    - \* **combat** between adjacent units.

- When the unit hit-points are reduced to zero they are **defeated** and are removed from the map.
- \* A Winning **condition** such as defeat all of the other players units.
- \* Battles are **turn based** meaning that each player moves all their units (once) before the next player turn.
- A set of behaviours for how the non-player characters should behave.
  - \* Including pathfinding
- A graphical representation of the game.

## 2.2 Secondary

- Tile **height**, where units can only move to tiles of a similar height.
- Tiles that are not passable such as sea, lava, etc.
- Tiles have different movement costs associated with them.
- Isometric graphics view of the game.
- Long distance weapons/magic for player.
- Direction and height of the character's tile affects attack.
- Sound effects.
- Music.
- Saving and loading games.

## 2.3 Tertiary

- Scripting support e.g to allow the user to define winning conditions.
- AI support for Long distance weapons/magic.
- **classes** of units which the AI supports.
- A graphical editor for making custom maps and events.
- Animations for units, combat and movement.
- Creation of custom units and shops.

## 2.4 Ethical Considerations

- form by 28th October
- Collection of data from questionnaire.
  - Just result of questionnaire, no personal data
- Asking user to play the created game.