**Functionals Specifications Rooms**

The aim of this document is to describe the project “Rooms”, and to precise the different modules which composes this project.

**Document revisions:**

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| **Date of the modification** | **Description of the modification** |
| 04/07/2018 | * Initial creation of the document * Project introduction * Project modules |
| 05/07/2018 | * Adding some content on Project modules / Room Generator * Adding entities * Moving parts from room generator to entities |
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**Project introduction:**

The project “Rooms” will be a simple video game, displayed in the terminal. The context of the game will be the second world war like universe, where the player will have to basically survive in the streets of a big city in an endless game. The player will start in a building and must loot enough stuff to go to the next building. He will move from room to room and handle the different encounters that will occur. Every rooms (and theirs content) will be randomly generated.

**Project modules:**

The project will be sub-divided in several modules:

**Entities:**

In the game, there is several entities:

**Items:**

*Weapon:*

A weapon is an item which can be dropped in loot crates. This item adds a certain quantity of attack to the character that handle it in an active weapon slot.

*Outfit:*

An outfit is an item which can be dropped in loot crates. This item adds a certain quantity of defense to the character that handle it in an active outfit slot.

**Character:**

*Player:*

*Neutral NPC:*

A neutral NPC, or civilian, is a character who doesn’t belong to a faction (Red or Blue). The character can be aggressive, neutral or friendly with the player, depending on some variables (Appearance score, faction belonging, the place where the encounter occurs, courage, etc.).

*Red NPC:*

A red NPC is a character who belong to the red faction. He will be automatically aggressive against anyone who is part of the blue faction (doesn’t mean that he will try to kill him / them, depending on some variables). He can be Friendly / aggressive / neutral (most probable), depending one some variables, with neutrals / civilians. He will be most of the time Friendly with another red, but in rare cases be neutral or in even rarer cases aggressive against him, depending on some variables.

*Blue NPC:*

A blue NPC is a character who belong to the blue faction. He will be automatically aggressive against anyone who is part of the red faction (doesn’t mean that he will try to kill him / them, depending on some variables). He can be Friendly / aggressive / neutral (most probable), depending one some variables with neutrals / civilians. He will be most of the time Friendly with another blue, but in rare cases be neutral or in even rarer cases aggressive against him, depending on some variables.

**Others:**

*Loot crate:*

A loot crate is a box which contain a random number of items. A loot crate can be guarded by someone or not. If a loot crate is guarded, the player cannot open it before he killed the guard. In the case of the player attacked someone in the room, this character, and the character on his side will be considered as guard of the loot crate.

The Items in the crate have some properties, based on the quality of the object, and the level of the player. The player can choose to “loot” the crate, and then see each item individually (Name and stats will be displayed, see Item section). When an item is displayed individually, the player can do 4 actions:

* **Take** the object (which transfer the item from the crate to the inventory of the player, if the space is available)
* See **next object** on the loot crate
* See **previous object** on the loot crate
* **Leave** the loot crate (which take back the player into the room)

If the player chooses to take every object, the player will automatically “leave” the crate.

*Inventory:*

The inventory is an abstract entity that is handled by any character. It can handle a certain number of items, depending on the size of the inventory and the place taken by the objects.

**Rooms-Generator:**

Excepted the first room, where the player will spawn, every room will be randomly generated.

Every room can be populated with the following entity:

* Loot crates
* Neutral NPC
* Red NPC
* Blue NPC

A room can be of the following types:

* Neutral room
* Neutral Shop
* Red camp
* Blue camp
* Battle room

**Neutral room:**

A neutral room is a room where the player has the highest probability to encounter neutral or civilians.

It is also possible to encounter some small factions forces (but only from one side).

There is a small probability to find at least one loot crate in this kind of room.

**Neutral shop:**

A neutral shop is a room where the player will find a civilian merchant, with who he will be able to trade (see economic & trade for more precision).

The player can also find some civilian in this kind room.

There is a very small probability to encounter some small factions forces (but only from one side).

There is a high probability to find at least one loot crate in this kind of room, but the civilian merchant will systematically be the guard of these boxes.

**Red camp:**

A red camp is a room belonging to the red faction.

The player has small probability to find some civilian in this kind of room.

The player will systematically encounter some varied red forces in this room.

There is high probability to find at least one crate in this room, but every red force present in the room will systematically be the guard of these boxes.

**Blue camp:**

A blue camp is a room belonging to the blue faction.

The player has small probability to find some civilian in this kind of room.

The player will systematically encounter some varied blue forces in this room.

There is high probability to find at least one crate in this room, but every blue force present in the room will systematically be the guard of these boxes.

**Battle room:**

A battle room is a room where opponents from the two factions are actively fighting when the player enter in it.

The player will systematically find some varied forces from red and blue faction.

The player has no chance to find any neutral / civilian.

There are very small possibilities to find at least one loot crate in this kind of room.