Core Project Document

Group 7

## Theme

The central theme of the game is: An unconventional weapon, friendship.

The game is all about working together to solve puzzles and defeat enemies. If you don’t work together you won’t be able to solve the puzzles. Furthermore the objective of the game is to deliver packets of supplies/information to help out your friends.

## Game Idea

The idea of group 7 is to make a 2.5D platform game. The special thing about this game is that there is no single player mode, it has to be played by two people. These people can sit next to each other, thus using the same keyboard, or via the internet.

The main idea of the game is that the two main characters are elves and live in trees. Their world is torn apart in a (civil) war. The task of the two main characters is to deliver packages and messages across the front. This will make it an adventure / stealth game.

The game will have different levels with increasing complexity and different types of challenges. The emphasis of the game will be working together, and levels can only be solved if the two players work together.

## Key components

We have chosen a list of different components we want to put in the game. We have put more points in the graphics portion and the programming portion of the components. This is because of the experience of the team members and because we want to make a game that has online multiplayer. In total the components we want to add come together to 47 stars. Below is a detailed list with descriptions of how we want to implement these components.

* Computer Graphics (CG) 15 ★
  + 3Dmodels:
    - 3D models ★★ – Martijn

creer meshes die wel documented zijn of statisch

* + - 3D animated models ★★ – Martijn

Alle acties animeren als er meer tijd is ook achtergronddingn die het spel leuk maken

* + Textures:
    - Texture as input ★★ – Martijn

Maak textures door ze te tekenen en ze dan in gimp in te kleuren

* + - Animated Textures ★ – Martijn

Water dat stroomt of bladeren in bomen die heen en weer gaan

* + Special effects & Juiciness
    - Camera shakes ★- Rick

The camera will shake whenever there is an explosion or when a rock falls down.

* + - Particle Systems ★ - Rick:

When a level is complete there will be confetti at the delivery place. There will also be smoke around torches.

* + Rendering
    - Play with lights and shadows ★– Martijn

Belangrijk in de stealth mechanics van de game dit maakt kenbaar wat vijanden kunnen zien bijvoorbeeld.

* + User Interface
    - Start,pause,end screen ★-Rick

Start screen with main menu which has buttons to start a game, choose a level, go to options, go to high scores, quit the game etc.

Pause screen which shows current score and has buttons to restart, return to previous checkpoint and return to the main menu.

End screen which shows the final score and high scores and has buttons to restart the level, go to the next level and go to the main menu.

* + - High scores ★- Rick

Shows high scores.

* + - Options ★-Rick

Gives the opportunity to change the controls and set the volume of background music and effects.

* + - Credits ★-Rick

Shows credits.

* + - UI animations ★–Martijn

Gebruik de 3d meshes om het menu te maken en maak animaties voor knoppen

* Artificial Intelligence (AI) 9 ★ - Misha
  + Dumb enemy ★  
    Our main characters have to pass some simple guards.
  + Huge amount of differently dumb enemies ★★★  
    We want some variance in our enemies in appearance and behaviour.
  + Some “consciousness” in enemies or the level ★★  
    Enemies should react on changes in environment, sounds.
  + Balanced enemy AI ★★★  
    Behaviour of enemies should be realistic, when they sense you. But game shouldn’t be frustratingly to play.
* Web & Databases (WD), Game Analysis - 8 ★
  + Send playthrough data to a free online tool ★ – Geert

We want to use the SDK and tools of gameanalytics that are available for unity. These tools will be used to gather information about the players behaviour and analyse and present this information so that it can be used to improve the game.

* + Collect and show highscores from web server ★★ – Geert

We want to create a database where players can make an account, in this database information about what levels the player finished and how fast they did it will be stored. In the game the user can compare this to his friends and the best overall times.

* + Save and share gamestates with others through social media ★★ – Geert

Players can share their highscores on social media and invite their friends to play

* + Online gamer accounts with avatars ★★★ – Geert

Players can create an account on the server and customize it. With this account they will be able to add friends, see if they are online and play with them.

* Programming (PR) 15 ★
  + Game mechanics
    - Local multiplayer ★ – Misha

Two players play together on the same screen. They can or have to share the same keyboard.

* + - Split-screen local multiplayer ★★ – Misha

Both players have their own view around the character they control. Optionally we make a dynamic split screen. If they are close together, they share the same big image. Far away and the screen is split.

* + - Online multiplayer ★★★★ – Misha

The two players can play via a LAN or internet. In the latter case they should be able to communicate via text or sound in order to cooperate well.

* + - Moving platforms ★ – Joris

Ofcourse, platforms can move. Either in a predictable way, or dependant on the input of the player

* + - Race against the clock ★ – Joris

some challenges can only be solved within a specified amount of time, and some of the mini games too of course. To beat the clock, working together is essential.

* + - Minigames ★ – Joris

These will be an essential part of the game. When a mini game is completed successfully, the players can proceed with the level. For instance, keys to advance in the level can be earned in a mini game. AI will also be added to the minigames, to increase the difficulty over time.

* + Gameloop
    - Checkpoints ★ – Joris

if one dies of fails in another way the players will be reset to the checkpoint.

* + - Gamespeed can be changed by player ★ – Joris

the players can choose to increase the game speed if one has to wait for a long time. Example: if a guard has to pass while the players are hidden.

* + Physics
    - Use Unity’s triggers to trigger certain actions ★ – Rick

Doors will open when a lever is pulled or when a player stands on a button. Game is over if the player falls of the platforms or the package falls of.

* + - Use Unity’s full physics engine ★★ – Rick

All the jumping and running will be done with the physics engine. Enemies will die when they collides with a bullet. You have to collide with a package to be able to pick it up or catch it. Players can’t collide with each other or with enemies.

## Student names, e-mails and role assignment

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## Rough schedule

Zie excel document

## Github page

<https://github.com/mishastassen/g7>