Proposal Graduation work

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| Student Name | Floris Leysen |
| Major | GAME DEVELOPMENT |
| Minor |  |
| Presentation | November  January June |
| Supervisor | Steven Verborgh |
| Coach | Jorge Monterrubio Sanudo |
| Working days on site | Monday  Tuesday  Wednesday  Thursday  Friday |

Project title:

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| 2 vegetation generator |

Research Question:

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| Tentative:  How can the progression of plant life based on environmental factors be accurately simulated in [UNITY/UNREAL]? |

Project outline:

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| Project outline  This section contains a short description of the project. Please elaborate what the project is about, what the context is. We deliberately ask you to write this down in your own words, so we can detect possible mismatches early on.  Method and approach  This section contains the research parts. What are the key issues you need to solve and how are you going to do this? This could be fi comparing software, solving export/import challenges,... . Of course, these topics should be closely related to the deliverable and the Research question. Do some initial research in the first week, so you can see what questions should be solved before you can start. |

Method and approach:

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| Engine choice: Unity for ease of use versus Unreal for ease of visual fidelity.  Look into the major influencing factors of what causes plants to grow or die. Look past extreme scientific accuracy like where branches or leaves would appear on the plant and focus on the accuracy of actual growth progression and spreading.  Aim for good performance in having many similarly tasked plants.  Investigate how plants influence the environment around them, leading to changes in how other vegetation can or cannot grow.  Find out how plants are spread via airflow. |

Deliverables:

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| - Plugin/extension/tool for Unity/Unreal intended to approximate natural plant growth at runtime.  - Plugin has customizable plant parameters: survival factors and visual progression representation  - Plugin has customizable environmental factors: min/max temperature, humidity, shadows, fertility  - Plugin allows users to modify elements at runtime: adding/killing plants in any progression stage or updating environmental factors  - Weekly reports  - Approved proposal  - PowerPoint presentation  - Planning- and time tracking exports  - Project outline  - A paper with at least 5000 words  - A video with the final results  - All source material used |