# Odd Space

Production Plan

#### Chaotic Evil

# Índex

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#### General Calendar of Work

A general calendar that shows every important event in the development process. It includes deadlines, meetings and any major occurrence along the making of the project.

- Sprint: weekly meetings that show what has been done in that week, report bugs and problems inside the team, and define what has to be done for the following week.
- QA sessions: quality assurance sessions in which team members and external testers will play the game and make a report on which aspects of it don't work and what changes should be done.

#### **February**

| Date  | Mon | Tue                             | Wed    | Thu | Fr<br>i | Sat | Sun    |
|-------|-----|---------------------------------|--------|-----|---------|-----|--------|
| 01-07 | -   | ·                               | -      | -   | 1       | ı   |        |
| 08-14 | -   | -                               | -      | -   | -       | -   | ,      |
| 15-21 | -   | Start Preproduction /<br>Sprint | -      | -   | ı       | ,   | -      |
| 22-28 | -   | -                               | Sprint | -   | -       | -   | Sprint |

#### March

| Date  | Mon | Tue  | Wed                 | Thu | Fri    | Sat                         | Sun                                  |
|-------|-----|--|---------------------|-----|--------|-----------------------------|--------------------------------------|
| 01-07 | 1   | Sprint                                     | ,                   | -   | 1      | 1                           | -                                    |
| 08-14 | 1   | •  | -                   | -   | Sprint | END:<br>Prod. Plan<br>/ TDD | Sprint / Concept Discover y Deadline |
| 15-21 | -   | Pitch Presentation / Finish Preproducti on | Start<br>Production | -   | -      | Sprint                      | •                                    |
| 22-28 | -   | -  | -                   | -   | -      | Sprint                      | -                                    |
| 29-31 | -   | -  | -                   |     |        |                             |                                      |

# April

| Date  | Mon | Tue | We<br>d | Thu | Fri           | Sat                    | Sun                        |
|-------|-----|-----|---------|-----|---------------|------------------------|----------------------------|
| 01-04 |     |     |         | 1   | ı             | Sprint                 | ı                          |
| 05-11 | 1   | 1   | •       | 1   | QA<br>session | QA session<br>/ Sprint | •                          |
| 12-18 | -   | -   | -       | -   | -             | Sprint                 | Vertical Slice<br>Deadline |
| 19-25 | 1   | 1   | 1       | 1   | ,             | Sprint                 | -                          |
| 26-30 | ı   | 1   | 1       | 1   | •             |                        |                            |

# May

| Date  | Mon | Tu<br>e | We<br>d | Thu | Fri           | Sat                    | Sun               |
|-------|-----|---------|---------|-----|---------------|------------------------|-------------------|
| 01-02 |     |         |         |     |               | Sprint                 | -                 |
| 03-09 | 1   | 1       | 1       | 1   | QA<br>session | QA session /<br>Sprint | -                 |
| 10-16 |     | -       | -       | -   | -             | Sprint                 | Alpha<br>Deadline |
| 17-23 | -   | -       | -       | -   | -             | Sprint                 | -                 |
| 26-30 | 1   | 1       | 1       | 1   | QA<br>session | QA session /<br>Sprint | •                 |
| 31    | -   | _       |         |     |               |                        |                   |

## June

| Date  | Mon | Tue | Wed    | Thu                                  | Fri                     | Sat | Sun |
|-------|-----|-----|--------|--------------------------------------|-------------------------|-----|-----|
| 01-06 |     |     | Sprint | Gold Deadline /<br>Finish Production | Start<br>Postproduction | ı   | -   |
| 07-13 | 1   | 1   | 1      | •                                    | •                       | 1   | -   |

| 14-20 | - | - | - | - | - |   | - |
|-------|---|---|---|---|---|---|---|
| 21-27 |   | - | - | - | - | , | - |

## Record of the Meetings

A record of every sprint and meeting that takes place within the team.

#### Meeting 01 - Sprint

- Date: 16/02/2021

- Outcome:

- Brainstorm of ideas for game's story, art, plot and mechanics
- Game view orientation decided: Top-Down
- TODO:
  - Develop some of the ideas in depth
- Next meeting:

Type: unknown

Date: unknown

Expected outcome: unknown

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#### Meeting 02 - Lead and Producer meeting

Date: 24/02/2021

- Outcome:

- Assigning tasks to team members
- Established predicted dates for meetings
- TODO: nothing
- Next meeting:

- Type: sprint

- Date: 25/02/2021

Expected outcome:

- Final brainstorming
- Present the different documentation to develop
- Organize tasks again if necessary
- Establish some deadlines
- If possible, start General Calendar of Work

#### Meeting 03 - Sprint

- Date: 25/02/2021

- Outcome:

- Final brainstorm
- Documentation to develop presented
- Tasks assigned
- New mechanic idea: random quests
- Final plot twist for the game: you are the bad guy
- TODO:
  - Develop some ideas in depth
- Next meeting:
  - Type: sprint
  - Date: 28/02/2021
  - Expected outcome:
    - Final game idea (not design)

#### Meeting 04 - Sprint

- Date: 28/02/2021
- Outcome:
  - Presentation of the ideas of the game
  - Choosing of the final idea
  - Changes of the final idea
- TODO:
  - Develop the mechanics, art and gameplay in depth
- Next meeting:
  - Type: sprint
  - Date: 02/03/2021
  - Expected outcome:
    - Changes on some details of the game

#### Meeting 05 - Sprint

- Date: 02/03/2021
- Outcome:
  - Presentation of the final game idea
  - Final idea is too ambitious
  - Shortened final idea
- TODO:
  - Tech Design Document (TDD)
  - Adjust game plot to last max 30 minutes
- Next meeting:
  - Type: sprint
  - Date: 12/03/2021

- Expected outcome:
  - Create pitch
  - Check documentation status and set/modify deadlines

#### Meeting 06 - Sprint

- Date: 12/03/2021
- Outcome:
  - Presentation of map layouts
  - Player and NPCs sprites are temporal
  - Audio Bible doubts solved
  - Overview on progress of each document
  - New item: ron bottle (revives team members)
- TODO:
  - Change the layout of some scenes
  - Finish all documentation before next meeting
- Next meeting:
  - Type: sprint
  - Date: 14/03/2021
  - Expected outcome:
    - Documentation revision
    - Pitch preparation

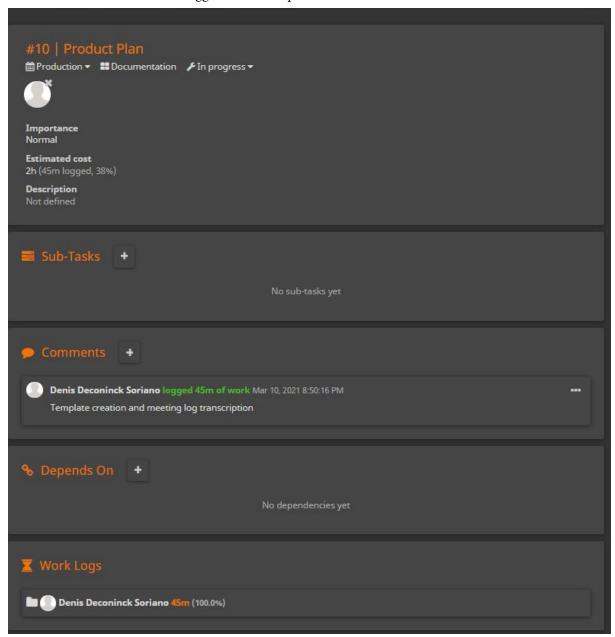
## Meeting 07 - Sprint

- Date: 14/03/2021
- Outcome:
  - Finished documentation
  - Started pitch preparation
  - Concept delivery crunch
- TODO:
  - Finish pitch
- Next meeting:
  - Type: sprint
  - Date: 20/03/2021
  - Expected outcome:
    - Start production
    - Define initial tasks for Vertical Slice delivery

#### Average Estimation Deviation

In order to log how much time we spend developing the game we will use Hack'n Plan. This website lets you indicate the estimated cost of each task (in time) and keep track of how much has already been done.

As an example, the image below shows that the "Product Plan" task is expected to take 2 hours to complete, and has already been worked on for 45 minutes. Moreover, this tool also indicates how much time each member has logged onto the specific task.



After each milestone, the producer, with the help of the rest of the team, will elaborate a document explaining how well time has been managed and how this can be improved.

## Risk and Contingency List

Any problem that we may find through the evolution of the game, indicating why it could happen, how it would affect the development process, and how we should proceed in order to solve it. The template that we are using is the following:

| Risk                      | Effect  | Trigger                                    | Probability(1-5                         | Impact(1-5)                               | Contingency<br>Plan                          |
|---------------------------|---|--|---|---|--|
| Definition<br>of the risk | How does it affect the development of the game? | What<br>would<br>make this<br>risk appear? | Probability of<br>the risk<br>appearing | How much would it affect the development? | How can we solve this problem if it appears? |

Therefore, we use this for every area (Production, Design, Art and Programming).

#### Production

| Risk  | Effect  | Trigger  | Probabilit<br>y(1-5) | Impact<br>(1-5) | Contingency<br>Plan  |
|---|---|--|----------------------|-----------------|--|
| Failure to comply with what was agreed in the sprints or not completing certain tasks | It delays the<br>development<br>process                             | Thinking we are capable of doing more work than what we can actually achieve                               | 3                    | 3               | Move the tasks<br>that we weren't<br>able to complete<br>to the next sprint<br>and be more<br>aware of our<br>capabilities |
| Not meeting<br>the calendar<br>deadlines  | Huge delay on<br>development<br>and probably<br>having to<br>crunch | Being too ambitious with our ideas and not being able to implement them all / last minute bugs and crashes | 2                    | 4               | Reorganize all the<br>work and, if<br>necessary, cut<br>work on some<br>areas and even<br>crunching                        |

| Making a big<br>change<br>without<br>following the<br>team's<br>guidelines | It can lead to<br>miscommunic<br>ation and team<br>members<br>arguing  | Thinking you have a great idea and implement ing it without asking the rest of the team                            | 2 | 4 | Make a reunion with the whole team and discuss whether the change is good or should be taken back        |
|--|--|--|---|---|--|
| Miscommunic ation inside the team  | It could trigger<br>major<br>problems such<br>as not asking<br>for help when<br>needed   | Low team connection  | 4 | 4 | Spending time together doing things out of the university environment, getting to know each other better |
| Fight between<br>members of<br>the team                                    | Miscommunic ation between areas (production, design, art, programming), demotivation on the project or decreasing working pace | Difference<br>s in<br>opinions<br>and ideas  | 3 | 5 | Have an intermediary, discuss the problem calmly and reaching an agreement                               |
| Someone<br>leaves the team   | Less people to<br>develop the<br>game, more<br>stress on the<br>team   | The person doesn't show interest in the project, doesn't work as expected, or has discrepancies with other members | 2 | 5 | Reorganize all the<br>work, putting<br>more tasks on<br>every member                                     |

# Design

| Risk   | Effect   | Trigger   | Probability (1-5) | Impact(1<br>-5)   | Continge<br>ncy Plan  |
|--|--|---|-------------------|---|---|
| Quest doesn't<br>make sense in<br>the game's story | Players<br>may not<br>want to<br>complete<br>it and<br>quit the<br>game                | Making quests for pure grinding and not justifying them well  | 2                 | 2   | Give the player a special reward or a little NPC dialogue after completin g the quest                 |
| Ideas are too<br>ambitious                         | Team is not able to pull of every feature of the game or complete the whole story      | Being too<br>motivated<br>and not<br>considering<br>how much<br>time we have<br>to develop<br>the project | 5                 | 2-4<br>(depends<br>on the<br>stage of<br>the game's<br>developm<br>ent) | Deleting some of the ideas, reducing the size of the game and adapting everythin g to the game's plot |
| Levels look<br>empty/oversatu<br>rated             | Develop<br>ment<br>would be<br>delayed as<br>we would<br>have to<br>redesign<br>levels | Not having enough decorations or having too many  | 1                 | 2   | Create more objects or delete some, in some cases this may cause a complete redesign of the level     |

| Puzzles are too<br>hard or easy         | Players would get bored or frustrated lowering the game's quality   | Designing<br>puzzles<br>without fully<br>testing them  | 2 | 3 | Test puzzles with people outside the team before approving them                                    |
|---|---|--|---|---|--|
| Argumental incoherence                  | Having to rewrite dialogs and implemen ting them again  | Not understandin g 100% the storyline probably due to miscommuni cation between team members | 2 | 3 | Talk with the teammate s to find a solution and rewrite the story                                  |
| Dialogs are too<br>long                 | Players might get bored and leave the game, so the player base would lower                                    | Being too<br>motivated<br>and wanting<br>to have a big<br>storyline                          | 3 | 3 | Cut some dialog and summariz e what we want to say   |
| UI looks<br>confusing or<br>too complex | User would get confused and frustrated so developm ent would have to be delayed in order to reorganize the UI | A lack on knowledge on UI design and not testing it before publishing the game               | 2 | 4 | Set a meeting with the lead and designer to find a solution and inform the program mers and artist |

|                                      |   |   |   |   | about the<br>changes<br>they have<br>to do  |
|--------------------------------------|---|---|---|---|---|
| Difficulty curve isn't well balanced | Designer would have to do many changes and therefore he would suddenly have a huge amount of work | Not considering well player and enemy stats and how levels affect these                           | 3 | 4 | Change the various formulas that change stats dependin g on levels and reducing the difficulty of some enemies and bosses                     |
| AI is too<br>hard/easy to<br>beat    | Restructu ring the AI system is hard and would take a long time                                   | Not communicati ng with the programming team and not knowing how to balance the combats correctly | 4 | 5 | Stop everythin g on the developm ent, solve the problem on another branch (not the main branch), and when it's solved, continue where we left |

### Art

| Risk   | Effect   | Trigger   | Probabilit<br>y(1-5) | Impact(<br>1-5) | Contingency<br>Plan   |
|--|--|---|----------------------|-----------------|---|
| Audio volume<br>is too high                            | Game sounds, by default, would be too loud and that could annoy the player                                     | Not<br>checking<br>loudness<br>before<br>implemen<br>ting the<br>sounds               | 4                    | 1               | The artist should find a way to lower the volume without distorting the audios  |
| File is too heavy                                      | If this occurs continuously, the game's weight could surpass the established limit of Ram memory usage (256mb) | Having big files with a lot of content on them  | 2                    | 2               | Divide the content of the files in various ones or finding an online compressor that lowers the size of the file without it losing too much quality |
| Sprite sizes are incoherent/don 't match the maps size | Artist would have to change the sprites, and that takes time   | Not<br>checking<br>sprite sizes<br>and<br>choosing<br>them just<br>for their<br>looks | 2                    | 2               | Resize the sprites if possible or find new ones   |
| Typography is<br>hard to read                          | Dialogs would be illegible and players would not read them   | Having a typograph y that is too small or complex (with serifs)                       | 1                    | 2               | Find a new<br>typography,<br>ideally a<br>sans-serif one  |

| Sprites/animati<br>ons take too<br>long to create                   | Less time to<br>do other tasks  | Thinking we are able to do a big part of the art ourselfs       | 3 | 4 | Find sprites<br>online to reduce<br>work  |
|---|---|---|---|---|---|
| Art or music<br>styles are<br>different<br>between scenes           | Artist would<br>have to spend<br>time, that we<br>don't have,<br>solving this<br>issue                        | Using art and audios from different sources that don't match up | 3 | 4 | Find new files that blend correctly with what we already have or justify the change with lore |
| Some element<br>attracts the<br>player's<br>attention<br>unwantedly | That element<br>should be<br>modified by<br>the artist  | Having a sprite that stands out in a scene and not noticing it  | 3 | 4 | Modify the asset<br>with photoshop<br>or replace it with<br>another one                       |
| Files have<br>copyright   | The game cannot have this types of files, so it would be a major inconvenienc e if the team doesn't notice it | Not<br>checking if<br>the file is<br>copyrighted<br>beforehand  | 2 | 5 | If we notice it,<br>replace the file as<br>quickly as<br>possible                             |

# Programming

| Risk   | Effect   | Trigger  | Probability (1-5) | Impact (1-5) | Contingency<br>Plan   |
|--|--|--|-------------------|--------------|---|
| Incorrect<br>art/audio<br>use                        | It leads to<br>the player<br>being<br>confused   | Mistaking which<br>file should be<br>used in a level   | 2                 | 1            | Find in the code<br>where we<br>implement that<br>file and change it                      |
| Gamepad<br>problems                                  | Game wouldn't be playable with a gamepad, which is a feature many players like   | Not using SDL<br>functions to<br>track gamepad<br>inputs correctly                               | 2                 | 3            | Check SDL<br>documentation<br>and asking as<br>much help as<br>needed until it<br>works   |
| Collision<br>detection<br>working<br>incorrectl<br>y | It's an essential part of any game, so this would be a huge problem por the development , causing a waste of time and energy | Not having a good collision detection code or not considering tunneling                          | 3                 | 4            | Check for online collision detection solutions in c++ and trying to use them as reference |
| Menu<br>navigatio<br>n<br>problems                   | If menu<br>navigation is<br>broken, the<br>game is<br>unplayable   | Designing a menu system that's too complex to program or that requires skills that we don't have | 3                 | 4            | Modifying the menu design or getting more team members to work on it                      |

| Save/Loa<br>d<br>problems     | Players will experience problems when saving and loading the game file, frustrating them and resulting in a bad opinion on the game | Not using correctly the pugiXML library to save/load all the variables   | 2 | 3 | Find where the error is and solve it as soon as possible   |
|-------------------------------|---|--|---|---|--|
| Importan<br>t bug             | Game gets broken most probably on an important feature  | Trying to implement a new feature for the game and changing something that affects another one                       | 3 | 4 | Work on a side<br>branch in which<br>the rest of the<br>team will keep<br>developing the<br>game while the<br>bug gets solved<br>on the main<br>branch. Ideally, to<br>mark this bug<br>somehow we will<br>use github issues |
| AI not<br>working<br>properly | Very big<br>waste of time<br>solving the<br>problem   | Low knowledge on AI programming or wrong implementation of the AI loop structure defined in the Tech Design Document | 4 | 4 | Search for common basic AI implementation in RPG games with code examples and getting all the team to work on this until it behaves as expected  |

| Corrupte<br>d files | If a file gets<br>corrupted, it<br>won't appear<br>in the game,<br>making it<br>useless                | When saving a file, program crashes and the file gets broken // changing the name of a file that doesn't allow this (maya files for example) | 2 | 5 | Make safety<br>copies regularly of<br>all the files to use<br>them in case this<br>happens       |
|---------------------|--|--|---|---|--|
| Game<br>crashes     | The game is<br>not playable  | Usually using a null pointer is the cause of this, but there are many other situations that can trigger a crash                              | 4 | 5 | Stop developing<br>the game and<br>center all team<br>members on<br>solving this                 |
| Memory<br>leaks     | Having this problem makes the ram memory usage increase constantly, even surpassing the limit of 256mb | Not deleting<br>variables from<br>the heap memory  | 5 | 5 | Finding what variables we are creating and not deleting and delete them when code stops using it |