



### Team



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# Changelog

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## Purpose

The purpose of this document is to contain the major guidelines to follow while working on this project concerning the software to use, the formats and specifications for the files and the backup and versioning policies.

## Creation Date

Since 18/10/2020.

## Current owner

Michael Marchesan

## Last modification

Last modification: 19/12/2020.

## Changelog

Who	When	What
Michael	18/10/2020	Document created
Michael	09/11/2020	Revision before first update
Luca	18/11/2020	Redesign of the document
Luca	19/11/2020	Directory Structure, File naming convention
Giuliana	20/11/2020	Data storage and access
Michael	21/11/2020	Data types and format
Giuliana	22/11/2020	Document preparation
Michael	22/11/2020	Added data formats to the DOD
Luca	02/12/2020	Added export naming, completed some paragraphs
Luca	15/12/2020	Small fixes on DOD
Giuliana	19/12/2020	Created file latex
Michael	20/12/2020	Updated file latex, added intestations

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# 1 Software list

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Here is a comprehensive list of software to be used in this project, along with their version on which they should be used to reduce the possibility of compatibility issues.

## Asset Editing Software

- RPGMaker MV 1.5.0
- Piskel 0.14.0
- Audacity 2.4.2

## Development Software

- RPGMaker MV 1.5 (Prototype)
- Unity 2019.1.15f1 Long Term Support (Release )
- Notepad++ 7.9.1
- Git 2.29.2.windows.2

## Organization Software

- Notepad++ 7.9.1
- MikTex 20.12
- Paint.net 4.2.14
- Microsoft Word 18.2008.12711.0
- Draw.io 13.9.9

## Organization Software

- Windows 10 Pro 2004

## 2 Diagrams

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Here is a comprehensive list of software to be used in this project, along with their version on which they should be used to reduce the possibility of compatibility issues.

**.drawio** Save format for the draw.io software. It works as a source for diagrams, allowing for easy and quick edits when needed. Diagrams are then exported in the .png format

**.png** The image exported from draw.io files to be inserted in the documentation.

## 3 Text

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**.tex** LaTeX file extension

## 4 Pictures

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Here is a comprehensive list of software to be used in this project, along with their version on which they should be used to reduce the possibility of compatibility issues.

**.piskel** Piskel project format that keeps all the editing information.

**.pdn** Paint.net format that keeps all the editing information.

**.jpg and .png (documentation)** standard format for images with no constraints (for example for documentation pictures like characters' portrait, settings and so on...)

**.drawio** .png (game)

Exported image for game usage.

- All images have a 32 bits color depth.
- Background images: 1920\*1080
- Tilesets: each tile is 64\*64 pixels
- Iconset: each tile is 64\*64 pixels.
- Faceset: each tile is 256\*256. Each file must contain different facial expressions for the same character.
- Character set: each tile is 64\*64 pixels. A character set must be 60 tiles wide and at most 4 tiles tall.
  - Each 60 horizontally consecutive tiles form a contiguous walking animation, with the 2nd one representing the idle state.
  - Each row represent an animation; non-rotating objects only have one row
  - Objects with an animation for each direction have 4 rows in the following order: right, up, left, down

## 5 Video

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### **.mkv, .mp4**

- Resolution: 1920\*1080
- FPS: 60
- Audio Sample Rate: 48000 Hz
- Audio Channels: Stereo

## 6 Audio

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### **.ogg Vorbis Audio File**

- Audio Channels: Stereo
- Sample Rate: 44100 Hz
- Nominal Bitrate: 64 kbit/s

## 7 Game data

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**.rpgproject** Main project file for RPG Maker MV software

**.js** For scripting purposes inside the RPG Maker MV software

**.json** For storing various asset information inside the RPG Maker MV software

## 8 Unity

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**.prefab** Unity's Prefab system allows you to create, configure, and store a GameObject complete with all its components, property values, and child GameObjects as a reusable Asset.

**.scene** Scenes contain the environments and menus of your game.

**.mat** In Unity, you use materials and Unity shaders together to define the appearance of your scene

**.asset** A Unity asset is an item that you can use in your game or Project. An asset may come from a file created outside of Unity, such as a 3D model, an audio file, an image, or any of the other types of file that Unity supports. There are also some asset types that you can create within Unity, such as an Animator Controller, an Audio Mixer or a Render Texture.

**.cs** C# code

## 9 Data Storage and Access

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The team works on the different project's versions through a public repository but with modification permission only for team members. The repository is on Git Hub at the link <https://github.com/Sephirothbahamut/Accio-Niffler>, owned by Michael Marchesan. Each role has specific privileges according to the following table:

Role	Privilege
Game Design	read/write/comment/upload
Level Design	read/write/comment/upload
Programmer	read/write/comment/upload
Artist	read/comment/upload
Composer	read/comment/upload

## 10 Backup

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The backup is managed through the Git Hub repository. Each team member has an always up-to-date local copy of the repo on their computer, with all the previous revisions offered by the version control software Git.

It's sufficient to roll back to a previous release if anything fails, plus a parallel copy of the repo on each member's pc ( $3 + 1$  hosted on GitHub) makes the project data extremely resilient to faults of any kind.



## 11 Directory Structure

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**Documentation** Contains all the files related to the game documentation, such as the Data Organization Document and the Level Design Document.

- **Data\_Organization\_Document** Contains LaTeX source for the Data Organization Document pdf.
- **Export** Contains the .pdf files exported from LaTeX.
- **Level\_Design\_Document** Contains LaTeX source for the Level Design Document pdf.
  - **Game\_Design**
  - **Level\_Design**
- **Pictures** Contains all the images used inside the documentation and their sources (.pdn, .drawio).
  - **Characters**
    - Circumplexes
    - Portraits
    - Relationship\_maps
    - Stat\_sheets
  - **Gameplay**
    - Items
    - Spells
  - **Maps**
  - **Level**
    - Flowcharts
    - FSM
    - Schemes
    - Script
    - World
  - **Locations**
  - **Story**

**Assets** Contains all the assets created by the artists

- **Audio** Contains all audio files and possibly their modifiable sources.
  - **Music**
  - **Sound\_effects**
  - **Speech**
- **Textures** Contains all the textures and tilesets and possibly their modifiable sources.
  - **Charsets**
  - **Facesets**
  - **Iconsets**
  - **Tilesets**

### Projects

- **Unity** Contains the main game projects
  - **Assets**
    - Audio (replicates the structure of root/Assets/Textures)
    - Prefabs
    - Scenes
    - Scripts
    - Textures (replicates the structure of root/Assets/Textures)
  - *(Default and auto-generated Unity project structure and files)*
- **RPG Maker** Contains prototypes
  - *(Default and auto-generated RPG Maker project structure and files)*

## 12 File Naming Convention

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Generally, each file starts with capital letter; spaces are replaced by underscores. The filename represents its content in roughly two parts:

- The first part represents what is contained in the file or what it refers to (for example: `Albus_Dumbledore` represents an asset concerning the character Albus Dumbledore, `Black_Lake_` represents an asset concerning the Black Lake setting and so on). It is composed by no more than 3 words, separated by underscores.
- The second part represents what type of content the file belongs to (for example: `_texture`, `_sound`, `_map`, `_circumplex`). It must be composed by only one word and it must be the final one of the filename: for this reason, abbreviations are allowed (for example: relationship map can be shortened to `_relmap`).

List of types to identify files in artistic assets:

- **`_image`** A full, independant image (portraits, backgrounds, etc).
- **`_music`** Background music.
- **`_sound`** A sound effect.
- **`_source`** The modifiable file format (For example a `.pdn` for images, a `.mid/.midi` for music etc).
- **`_tile`** An individual tile.
- **`_tileset`** An image intended to be read in tiles (environment tilesets, icon sets, face sets, etc).
- **`_video`**
- **`_voice`** Spoken dialogue or part of a dialogue.

List of types to identify files in documentation:

- **`_source`** The modifiable file format (For example a `.pdn` for images, a `.mid/.midi` for music etc).
- **`_diagram`**
- **`_flowchart`**
- **`_template`**
- **`_circumplex`**
- **`_portrait`**
- **`_relmap`**
- **`_map`**
- **`_picture`**
- **`_document`**

- `_logo`
- `_sheet`
- `_icon`
- `_chart`

Each diagram or flowchart must be paired with its source that generated it.

E.g.

- `Albus_circumplex.png` represents the character circumplex of Albus Dumbledore.
- `Myrtle_Ghost_portrait.png` represents a portrait image of Myrtle in her ghostly form.
- `Minerva_relmap.png` represents the relationship map of Minerva McGonagall.
- `Minerva_relmap_source.pdn` the editable source for the previous file.

## Exceptions

Documentation `.tex` source files mustn't end in `_source`. Except for the root file, all the other files must have the same name as the title of the section they contain. If a file is further split in other sub-files, all those they must be inside of a folder named the same as the parent file. All those files and folders still have the spaces replaced with underscores.

Final `.pdf` documentation files exported from the LaTeX source are named as follows:

[Document Abbreviation]\_[Name of the team]

For example the abbreviation of the export of the Data Organization Document (DOD) will be **DOD\_AccioNiffler.pdf**