Roles in Game Design and Prototyping

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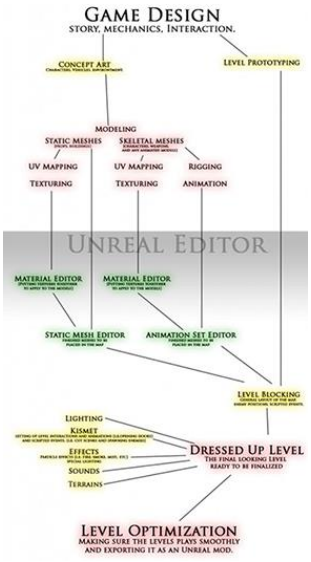
Existing Phases in Games Development

The Initial stages of a Game Development Lifecycle are the design and prototyping. The Design is where we define the games rules, gameplay, theme, art style and control schemes. Design is meant to show the team, what the game should eventually feel like. Prototyping is where we make a minimal Mock-Up of the gameplay and game rules to make sure that they all work fundamentally. Very few textures are used and are often called “Grey-boxing” levels, as they all contain grey template textures.

The idea behind prototyping is not to make a finished product, but to demonstrate to your team or larger companies that the game works and is worth creating. Programming is often left solely to the programmers and game designers, as they are responsible for creating the specific gameplay mechanics that make the game what it is. As prototyping progresses you will eventually reach a point where you are happy with the game as a whole and will enter the production stage.



Sometimes when nearing the mid to end point of pre-production, something called a ‘vertical slice’ will be created. The purpose of creating a vertical slice is to have a better grasp of everything that needs to be considered throughout the entire production pipeline. It helps identify potential technical issues up front, gives the team and potential stakeholders a preview into what their final game will look like, and also greatly helps with task estimation. Because the vertical slice is more or less representative of the ongoing production process, it gives producers and project managers a way to understand how long things will take.

Creating a vertical slice doesn’t always make sense, but for games with a high level of complexity and scope, it can make a lot of sense. Ideally the vertical slice will be a piece of the game that will be repeatedly created throughout production. This could mean it’s a level, or a location, or some other small piece of the game that there will be many of. If it’s not a part of the game that will need to be repeatedly created throughout production, then the vertical slice will not provide as much useful information. In this case it becomes more of a rush to complete a feature than it is to understand the production process further.

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Roles in Game Development

Designer

A Game Designer creates gameplay, rule, and structure of the game. This includes the User Interface, documentation, narration and story of the game. They are also responsible for the creation of the game characters, their stories and voices (in collaboration with the sound engineer).

Our team's designers were:

Adam – Character Story, Main Story.
Me – User Interface, Character Sound, Heads-Up Display elements.

Artist

An Artist create the game art. This art includes environment assets, character design, sprite sheets as well as the enemy sprites.

Our team's Artists are:

Reece – Main Character Sprite, Environment art.
Daniel – Main Character Sprite Sheet.

Programmer

The Programmer writes the logics within the game and allows the user to control the game. Programmers control the flow of the game. They create the Physics, Gameplay, input processing as well as the Scripting.

Our team's Programmer was:

Daniel – Gameplay, Sprite's, Physics and input processing.

Level Designer

The Level Designer creates the different levels and designs them. They create the challenging stages within the game.

Our groups Level Designers are:

Matthew – Hand drawn paper level sheets.
Me – Created all digital versions of the levels + implementation.

Sound Engineer

The sound engineer creates all the music and sound fx for the game.

Our team's Sound Engineer was:

Me – Overworld theme, and character attack sounds.

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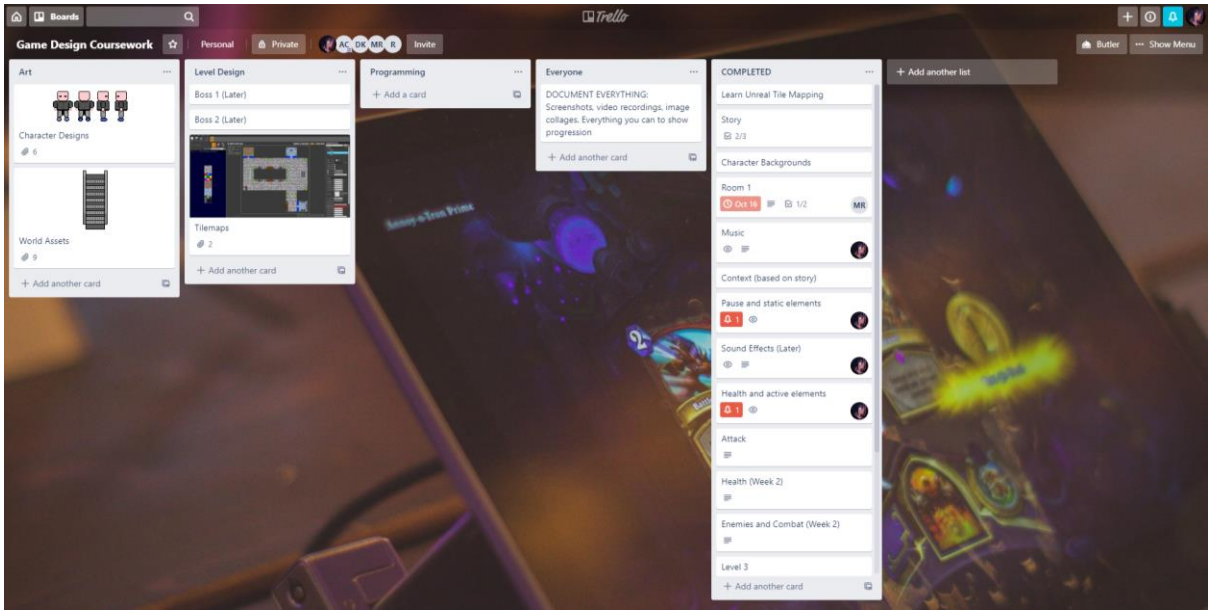
Workflow Practiced in our Project

Within our relatively large group (five people) we decided it would be easiest to manage and allocate tasks to the different members, if we created a Trello board. Trello is an online task management service, which allows you to set deadlines for certain tasks to be completed by, and with this we can monitor each other's work, to see what needs doing/improving and if we are hitting our targets. We also held weekly group meetings (although not everyone showed up every time) they allowed us to talk about our progress and ideas.

Trello

We began our development cycle with the Trello board being our main source of viewing each other's progress. We had outlined all of the tasks we needed to do, and set personal deadlines, on when we believed we could have them completed by. We had all agreed on using this system for our work, but the reliance on others own motivation to work wasn't good as only a few of our members (including myself) actually completed our tasks and recorded them on the Trello board.

We were holding group meetings every Thursday morning to discuss our progress, to which we all explained our progress, but through the lack of material on the Trello board, there was no evidence of this being done.



Progress Meetings

As the Trello board was not being used, we collectively came together as a group and started doing our "Progress Meetings". We would set deadlines, and actively upload and share our work to the group as we were doing it, within our group chat. This was then carried over to our Thursday meetings in which we used to show our progress to each other in real time, allowing use to comment on the different aspects of the design, and what we wanted to keep or what we wanted to change. As well as this, it also allowed us to get together and create new ideas, as well as the ways we could implement them.

Although this is not a conventional workflow, it worked for our team.

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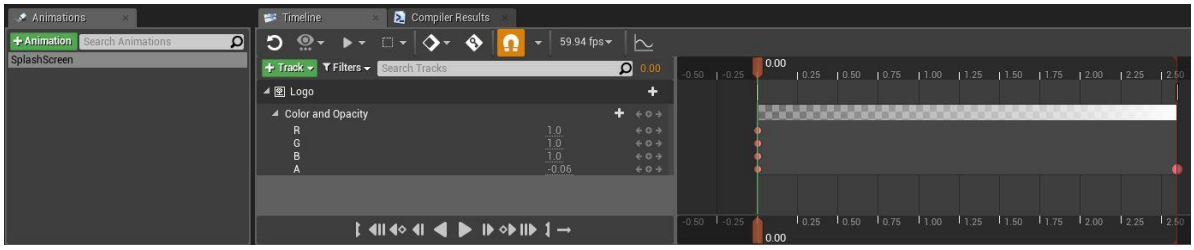
My Role

My role within the team was to create and implement all active User Interface elements, including but not limited to; the Main Menu, Pause Screen and Heads-Up Display elements. I also worked on other elements of the design and prototype outside of my main role, such as the opening cinematic, music and sound effects, as well as the digital versions of the level designs.

I started my role by creating mock-ups for the main menu's User Interface and submitting them to the group for review. Once I had confirmation of all members that they were good, I started to implement actual graphics to them, selecting background images and different fonts. I created all of the User Interface elements by using widgets withing Unreal Engine 4. These widgets allow the different buttons of the Main Menu, to have different states dependent on whether they are being hovered over or not. I created a simple white version of my text, in order to demonstrate to the player that the option is selected. By using these widgets within Unreal Engine, It is much simpler to implement into the final game, even while another user is using the most up-to-date version of the project file, allowing me to simply drag and drop the files when the project file is with me.

It was also important for me to add animations on the launch and exit of the game, as it makes the user experience a lot smoother. I added a "Splash Screen" at the beginning of the game, which slowly reveals the games title, and then cuts to the main menu, this just makes the experience smoother for the user. With this I also added a "Loading Screen" Which will show the players the games controls. This was important to me as more traditional "tutorial" levels are extremely boring, and I wanted players to get straight into the action of the game, without being bored by simple controls.



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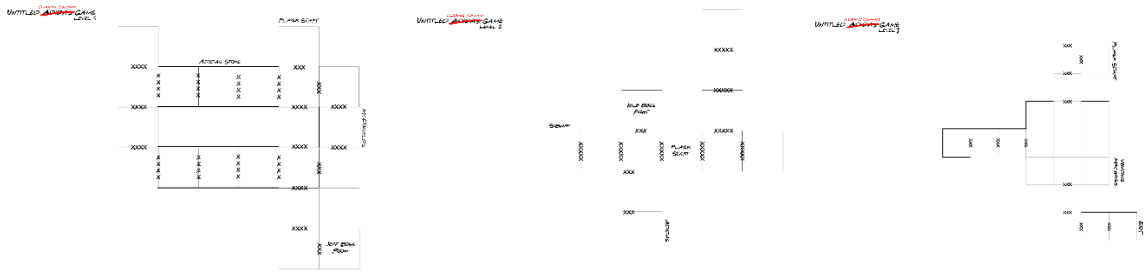
Level Designs

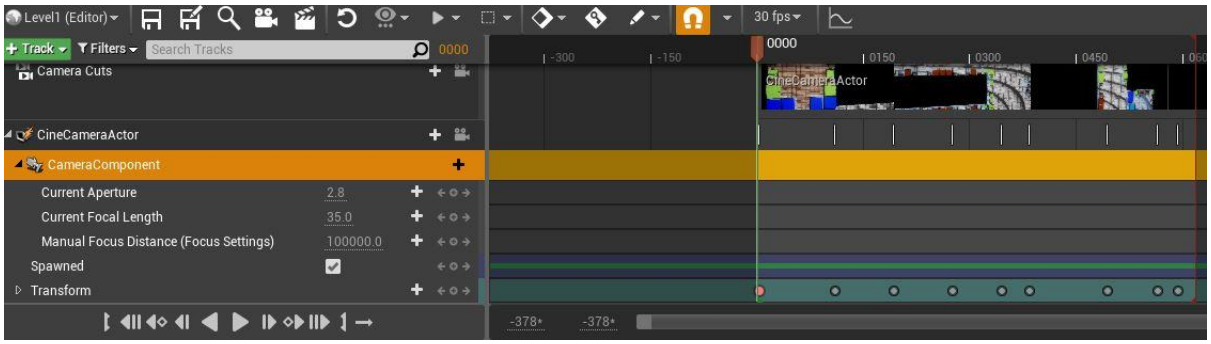
Once I had completed my final version of the main menu, and had positive feedback of the group, I began working on the digital versions of the Level Designs. To create these level designs, I simply used the box tool in photoshop, and started to arrange them in the same place as the hand-drawn prototypes I was given.



Cinematics

Within the group we decided that the player loading into the game and playing straight away is disorientating, so I decided to add an opening cinematic that plays whenever the player loads the game. The goal of the cinematic was to simply let the player see the enemies, as well as the locations of the items they need to proceed. Without the story elements incorporated within the prototype, it was important for our play-testers to at least see, that there are items to gain, and enemies to fight.

To create the cinematic, I used Unreal Engines level sequencer cinematic tool, and used key frames to inform the camera where to go and at what speed. I also used these keyframes to keep the camera in focus.



Task Timeline

Task	Description	Completion Date
Choose Font	Chose the font used in the UI elements.	2nd October 19
Background Images	Chose the images used as the background images for the main menu.	9th October 19
1st Prototype	Implemented the initial design into unreal, with no usable buttons, just the basic layout.	12th October 19
Digital Level Designs	Created digital versions of the paper level designs.	19th October 19
Widget Buttons	Added clickable buttons to the prototype, with different states on hovered and clicked.	24th October 19
Save Screen	Created a save screen, showing the layout of our system.	28th October 19

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Options Screen	Created an option menu, accessible via the options button on the main menu.	3rd September 19
Splash Screen	Created an animated "Splash Screen" to play an animation when the game is opened.	5th September 19
Loading Screen	Added a loading screen, with the game's controls. Using a widget and a delay node.	7th September 19
HUD Elements	Created a HUD png, with space for a progress bar element.	12th September 19
Addition to menu	Linked the menu screens, to the menu buttons.	15th September 19
Adding HUD to viewport	Added the HUD to show during gameplay	18th September 19
Adding progress bar	Added progress bar to the HUD.	21st September 19
2nd Prototype	Usable buttons, splash screen functional and loading screen added on player start.	29th September 19
Cinematic	Created a level cinematic using key frames.	5th November 19
Pause Screen	Added a pause screen, allowing players to exit or continue.	10th November 19
Level Blueprint	Cleaned all blueprint nodes, as well as adding the cinematic to play at the begging of the level. As well as the pause screen.	15th November 19
Final Prototype	Fully functional splash screen, main menu, loading screen, cinematic and pause screen.	25th November 19

Personal Reflection

The role I took on was that of a User Interface Designer, but through many complications I ended up becoming a Level Designer as well. I believe that I have completed all of the tasks required of a User Interface designer as well as that of a level designer. Although there was a lack of cooperation from the main Level Designer, I still created the digital level designs and implemented them into both our pitch, but also our prototype. When choosing both fonts and textures for the main menu, I believe I was successful in matching the User Interface with our game's overall aesthetic.

A look into Working as a Group

Group work is always amazing when every member is as passionate of the project as the others. When there is a conflict of interest, and some group members do not submit any resources, or reply to our requests for a while, it falls on the rest of the team to create these resources. Our group communication was not the best, people not coming to the group meetings, and others not submitting the requested work (or even un-acceptable work). But we worked hard for this not to reflect on our work, via other members completing others work. I believe that the peer assessment within the game design document makes this clear, that some members were not as productive as others.

Ignoring our groups downfalls, the collaborative process was really useful, having someone within the group telling you that your idea is terrible and to re-think it may seem harsh, but without it the work would have been sub-par. Better communication is needed all around, some members did not have the work ethic needed to complete this work, and had silly excuses for everything. Not that I am completely without blame for some errors, but the communication was there, so that we could adapt the workflow and still complete our tasks.

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References

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