

Computer Games Development

Project Report

Year IV

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[Date of Submission]

[Declaration form to be attached]

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# Acknowledgements

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Martin Harrigan, who guided me on what topic I should cover, and how to handle the work weekly.

I would also like to thank SETU Carlow for use of their machines and knowledge on the topics I will discuss.

# Project Abstract

Replace this text with an appropriate Project Abstract.

Video games creation started all the way back in 1958 and a new entertainment industry emerged. Hidden object games are a genre of video games, where you search for a object hidden in a busy photo.

Hidden object games were first defined in 2005, making it one of the later game genres to be realised. Hidden object games are some of the most intensive when it comes to 2D art assets – Not only does the background have to be fleshed out so objects can effortlessly blend into it, but each object must be drawn out separately as well. UI in hidden objects games are also often designed to match the environments it’s in as well. Overall, this requires a large budget for many assets used.

# Project Introduction and/or Research Question

I am going to attempt to make a hidden object game that defies the expenses mentioned in the Abstract. A third-party software will deliver game assets throughout the game, rather than crafted beforehand. The question asked during this paper are if this can be implemented correctly, would the player notice the difference? If they couldn’t, this could streamline the process of creating assets for games, as well as save a lot on resources within the project.

So, to clarify what the questions are:

Research Question 1: Can we make a hidden-object game that relies on a third-party to deliver the game assets dynamically?

Research Question 2: Will such a game be seamless to the player? Can we make levels theme-based?

To try out both these questions, I will be creating a Python-based hidden object game, with the third party being REST API.

# Literature Review

# Others have done work similar to what I’m setting out to do. For example, Serpa attempted to program machine learning to generate assets, for the same reasons I provided above. (Serpa, 2019). Another person, Atorf, wanted to create a dynamic difficulty system in a hidden object game, wanting to personalise the experience for each user. (Atorf, 2021). I want to combine the two ideas of these – art personalisation through programming rather than traditional means.

# Evaluation and Discussion

**Project Milestones**

**Major Technical Achievements**

**Project Review**

# Conclusions

**Future Work**

# References

# References

Atorf, D. (2021). *202108C040.pdf*. Retrieved from Web Archive: https://web.archive.org/web/20220116131039id\_/http://www.iadisportal.org/components/com\_booklibrary/ebooks/202108C040.pdf

Serpa, Y. (2019, December 9). *Towards machine-learning assisted asset generation for games: A study on pixel art sprite sheets*. Retrieved from IEEE Xplore: https://ieeexplore.ieee.org/abstract/document/8924853

# Appendices