Project Deckard

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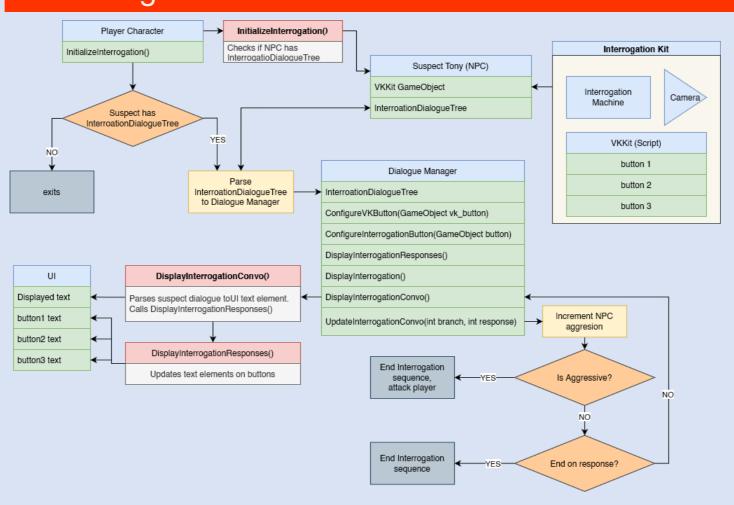University

Project Overview

Project Deckard is a video game that has the player control a bounty hunter with an Arduino-based controller, to track down and interrogate an array of suspects to discover the randomly chosen target, however they deem fit.
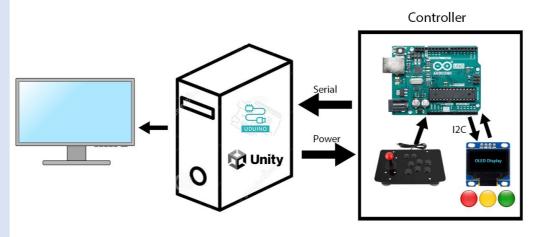
The Arduino controller will have a variety of buttons and a joystick to help the player navigate the desolate city before them.

Project Deckard will pull design queues from games like Deus Ex, Half Life 2, and Prey 2017.
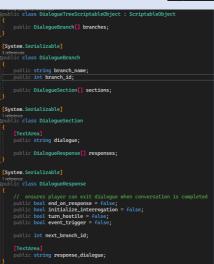

UML Diagram

Block Diagram

Link to the game

Results

The initial version of the dialogue script used a if statement, constantly polling for responses from a button press. Worked in the beginning but prone to bugs, along with poor scalability.

The current version now uses a binary-tree design, that displays dialogue when a button requests the Dialogue Manager, displaying the character's response at runtime. This improved reliability and scalability vastly, compared to the initial version.

Thanks to the binary tree format of the dialogue choices, there is no set limit to the number of dialogue responses. This can range from either one response to multiple branching responses.

Conclusion

While there are improvements to be applied to the AI state machines and game models, Project Deckard is now playable from start to finish with both mouse and keyboard, and the Arduino controller.