Project Concept Document

# General Information

Project Name: 2-D interactive game Project Number: PR232399

Requestor Name: Joe Spurway Date of Request: January 11, 2022

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## Business Justification

This project is aimed at creating an interactive 2-D video game within the 68000 Motorola Assembly Language. This project management process will follow along side the continued term project of Computing Machinery II.

The desired project outcomes include:

* Ensure that the game runs as efficiently as possible within the assembly framework
* Game must be based on animated, monochrome, 2-D graphics.
* Game must be interactive, with near-instant (“real time”) feedback to user input events.
* Both 1-player and 2-player versions must be specified.
* Games must include sound effects and music.
* Basic game play must involve user input from the keyboard. Optionally, mouse input

may also be used for some user input during game play. Mouse input will be mandatory

for a welcome “splash screen” in a later stage, but this can be ignored initially.

## Project Description

A fully functional game program that meets all required course specifications and outlined personal specification.

* + Stage 1: Game Specification
  + Stage 2: Graphics Library implementation
  + Stage 3: Game model modules
  + Stage 4: Game renderer module
  + Stage 5: Game main module
  + Stage 6a: Double buffer graphics – inefficient redrawing
  + Stage 6b: Double buffer graphics – efficient redrawing
  + Stage 7: Sound
  + Stage 8: removal of any remaining O/S supported modules
  + Stage 9a: VBL ISR for synchronous events
  + Stage 9b: IKBD ISR for keyboard and mouse input
  + Stage 10: mouse-driven menu
  + Stage 11: 2-player mode

## Project Costs

Program will be written in a freeware Atari Emulator called sTeem so no physical costs.

## Timeframe

This project is time critical – 11:59PM Tuesday, April 13th.

## Planning Estimates

January 11, 2022 -> January 17, 2022

Concept Short List Deadline – Create a list of 3 possible game ideas with brief 1 paragraph descriptions.

January 11, 2022 -> January 21, 2022

Initial Draft Completion – Create an initial draft of the game specification for the chosen game.

January 21, 2022 -> January 31, 2022

Final Draft Completion – Create a completed detailed, implementable game specification.

February 1, 2022 -> February 14, 2022

Stage 2 & Stage 3 & Stage 4 – implement graphics and initial game modules to render the game

February 15, 2022 -> February 28, 2022

Stage 5 & Stage 6a & Stage 6b – Create the main game module

March 1, 2022 -> March 14, 2022

Stage 7 & Stage 8 – Add sound and remove O/S modules

March 15, 2022 -> March 31, 2022

Stage 9a & Stage 9b & Stage 10 –synchronous events and tie in keyboard and mouse input for menu.

April 1, 2022 -> April 13

Stage 11 – Serial communications and 2-player mode

## Business Areas Impacted

Games Development

Math and Computing Enthusiasts

### Selection Committee Review

Date of review:

Comments:

Project Reviewed/denied:

Project priority: