

# **PROJECT PROPOSAL - FANCY 2D INTERFACE(TEAM - 3)**

## **High- Level Goal:**

The high-level goal of this module is to create a dynamic and engaging 2D interface for the game using the wxWidgets/QT GUI toolkit and the SFML graphics rendering Library.

## **Key Features:**

- Primary:
  - GUI menus for navigating the application
  - Rendering the world and its states
  - Rendering agents and their actions
  - Hardware integration for navigating menus
  - Hardware integration for player control over an agent
- Secondary:
  - Dynamic inventory menu
  - Quest marker
  - Dynamic map(?)

## **Dependencies:**

- World state data updates: The world module will provide information about the game world, such as the grid layout and the position of objects. Determines how we can display sections of the world. Regularly exchange information updates.
- Agent actions list: The agent module will provide information about agents in the game, such as their actions and behaviors. Determines how we can display agents/actions and when. Regularly exchange information updates.
- Data collection/Analysis module: This module will provide statistical data about the game, such as player performance metrics and gameplay statistics. Need to know what data should be displayed and when. Keylogging.
- Networking: Need to know how our interface will connect with networked controls/worlds. Have common controls and layouts.

**Challenges:**

- Learning the GUI and graphic rendering may be difficult, depending on how expansive their codebase is. We're learning two separate toolkits: one for GUI (either wxWidgets or QT), one for graphic rendering (SFML).
- Self-direction and project planning will be developed independently which will create some challenges to plan the project effectively.
- Integration with other modules and cross-team collaboration can be challenging.

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