WARGAME PROGRESS REPORT

Report 3: October 3rd - October 17th

Reid Coates | Client Coordination and Backend Development Lead
Jack Kelley | Organization Lead and Frontend Development
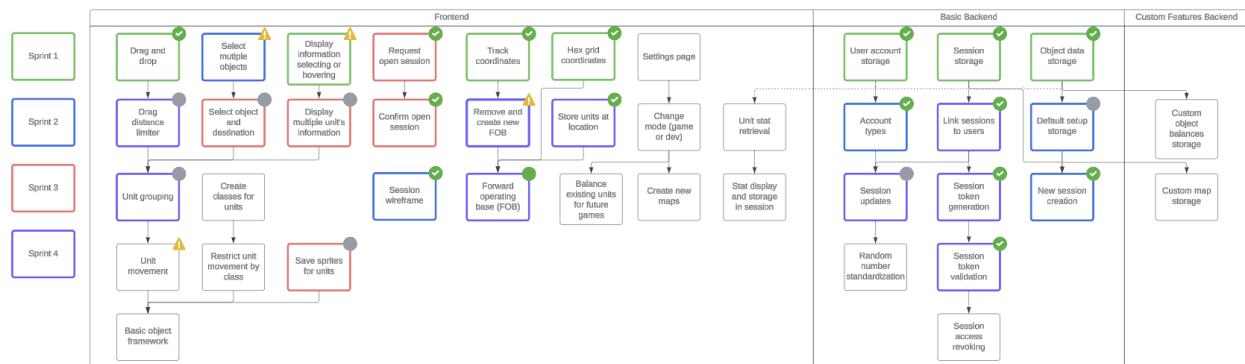*Alexander Hassan* | Testing Lead and Frontend Development
Luke Muilenburg | Frontend Development Lead

Group 23 | sddec24-23 | EE/CPRE/SE 492
Client: Reid Coates
Advisor: Ahmed Shakil

WEEKLY PROGRESSION

Major Code Merges - **Jack Kelley**
- I worked on getting reviews for some major updates I made to the code as well as spent time reviewing my own updates to ensure the large changes wouldn't cause any unintended behavior. After approval from Luke and Alex, I merged my changes into the main branch to be resolved along with some major changes from Luke for the armament framework.

Merging branches - **Alex Hassan**
- Worked on merging Jack's and Luke's work into a separate branch and worked with both Jack and Luke to ensure that merge conflicts were taken care of, and that redundant code was not repeated.

Asset Sprites and MFD functions **- Luke Muilenburg**
- During this sprint I worked on the sprites for assets, which are nearly complete, as well as mfd functionality issues for the GUI that handles aircraft equipment. I had a lot of issues with my vpn during this time, so I worked mostly on the sprite stuff since I could not get JSON requests to properly function. Below I have included a couple of examples of sprites I have done

for the J-20 and H-6. I have completed more sprites than these, but these two are representative of the work:

H-6.png

J-20.png

Reworked default asset generation **- Reid Coates**
- Default assets had two methods for controlling quantity. This resulted in massive amounts of data being sent to the front end with duplicate info at the

factor of the quantity of that asset. I reworked the system to only have one copy of quantity. Both the model and controller now coordinate this info.

Allow frontend to submit updated armament lists **- Reid Coates**
- Added handling for the armament lists while keeping a generic version for old frontend code branches. Handler lets the player submit their armament list with their asset list and overwrites the current list with their selection. Because the enemy should not see the armaments in the first place, there is no need for a temp list to be saved.

PENDING ISSUES

Gameboard Scaling
- After implementing game assets and assigning values to those assets (combat power, movement speed, etc.), we've found that some assets can move across the entire board very quickly. With this, we are considered rescaling the game more to include more tiles. We found, however, that this could take a lot more time than originally anticipated so we are now looking into other alternatives such as modifying the values for the assets, or applying a conversion from the base asset values to a value that is more suitable to our game board.

Turn Interfacing
- We need to add interfaces for guiding the user through playing a turn and the possible options they have on any given turn. More generally, we want to start with notifying the user if their opponent has submitted a move and is waiting on them to make a move, as well as display what turn it is. We also want to include more information about game assets and clean up the code for displaying where an asset can be moved to (its range).

Should we implement sending HTTPS requests as opposed to HTTP requests?
- In the final product delivery, it may become necessary to encrypt all network communications with HTTPS requests. However, this may require significant rework and may not entirely be possible with Game Maker.
- Note: This change should not affect how the game communicates with the backend and will be a consideration that we will discuss and decide on finalization of the backend logic and frontend graphics.

INDIVIDUAL CONTRIBUTIONS

Team Member	Contribution	Weekly Hours	Total Hours
Alexander Hassan	Worked on merging Jack's and Luke's work into a separate branch and worked with both Jack and Luke to ensure that merge conflicts were taken care of, and that redundant code was not repeated.	3	75
Jack Kelley	Point and click movement implementation, pop-up window implementation	6	79
Reid Coates	Added all default assets and reworked structure to correct duplicate additions. Completed first aircraft kill logic.	12	105
Luke Muilenburg	Work on sprites, MFD functions, and VPN issues	9	69

NEXT WEEK

Task	Members	Completion Date
Fix game logic that is breaking backend	Reid	10/17
Design refueling logic and flags	Reid	10/17
Update Submit move request to include the armaments being equipped to assets and the available list of armaments with reduced quantity once equipped.	Alex	10/17
Update codebase and remove redundant code; implement the UI for setting aggression level and use full range flags and send this data to the backend.	Alex	10/17
Sprite completion	Luke	10/17
Refine the equipment system	Luke	10/17
Ability to move squadrons together	Jack	10/17
Implement FOB for armament prompts	Jack	10/17