

Project Messages GDD

By Justin Lam

Outline

Outline.....	1
1. Vision.....	4
1.1 Treatment.....	4
1.2 Vision Statement.....	4
1.3 Design Pillars.....	4
1.4 Gameplay Synopsis.....	4
1.4.1 Uniqueness.....	4
1.4.2 Mechanics.....	5
1.4.3 Setting.....	5
1.4.4 Look and Feel.....	5
2. Gameplay.....	6
2.1 Gameplay Loop.....	7
2.2 Decryption (note for designer: change name for less confusion).....	8
2.2.1 Time.....	8
2.2.2 Intercepted Messages.....	8
2.2.2.1 Template.....	8
2.2.2.2 Information in Messages.....	8
2.2.2.3 Message Type.....	9
2.2.3 False Messages/Obstacles.....	12
2.2.3.1 Discrepancies.....	12
2.2.3.2 Invisible Ink/Chemicals.....	13
2.2.3.3 Encrypted Messages/AT Machine.....	14
2.2.3.3.1 Breaking/Fixing Mechanic.....	14
2.2.4 Difficulty of Decryption.....	15
2.2.5 Player Actions/Tools/Controls/UI UX Layout.....	17
Universal Controls/Shortcuts.....	17
Office.....	17
2.2.5.1 War Room.....	18
2.2.5.2 Current Messages.....	19
2.2.5.3 Message Piles.....	19
2.2.5.4 Intelligence.....	19
2.2.5.5 Player Corkboard.....	20
2.2.5.6 War Map.....	20
2.2.5.7 Clock/Calendar.....	22
Analysis Room.....	22
2.2.5.8 Chemical Station.....	23
2.2.5.9 AT Machine.....	23
2.2.5.10 Misc.....	23

2.2.6 Side Missions.....	23
2.3 Planning.....	25
2.3.1 Map.....	25
2.3.1.1 Terrain and Event.....	26
2.3.1.1.1 Terrains.....	26
2.3.1.1.2 Events.....	27
2.3.2 Auxiliary Units.....	28
2.3.2.1 Main Units: Tanks, Planes, and Anti-Air.....	28
2.3.2.2 Sub Unit.....	28
2.3.2.2.1 General Infantry.....	28
2.3.2.2.2 Flamethrower Infantry.....	29
2.3.2.2.3 Scouts.....	29
2.3.2.2.4 Paratroopers (Want/Wish).....	29
2.3.3 Deployment.....	30
2.3.4 Enemy Generation.....	30
2.4 Battle.....	31
2.4.1 Combat.....	31
2.4.1.1 Encirclement.....	32
2.4.2 After Battle.....	32
3. Technical.....	33
3.1 Pause Menu.....	33
3.1.1 Save and Load.....	33
3.1.2 Audio.....	33
3.1.3 Video Settings.....	33
3.1.4 Gameplay.....	33
4. Asset List.....	34
5. Art Direction/Reference Images.....	35
5.1 General Art Direction.....	35
5.2 War Room.....	35
5.2.1 War Map.....	37
5.2.2 AT Machine.....	38
5.3 Units.....	39
5.3.1 Player.....	40
5.3.1.1 Tanks.....	40
M4 Sherman.....	40
Matilda II.....	41
5.3.1.2 Plane - DH.98 Mosquito.....	42
DH.98 Mosquito.....	42
P-38 Lightning.....	42
5.3.1.3 Anti-Air.....	43
M16 Multiple Gun Motor Carriage.....	43

YaG-10 AA.....	44
5.3.1.4 Infantry - French Infantry.....	44
5.3.2 Enemy.....	46
5.3.2.1 Tank.....	46
Panzer IV.....	46
Type 97 Chi-Ha.....	47
5.3.2.2 Plane.....	47
Mitsubishi A6M Zero.....	48
Messerschmitt Bf 109.....	48
5.3.2.3 Anti-Air.....	48
Flakpanzer I.....	49
Flakpanzer Gepard (for naming purposes, please just use Gepard).....	49
5.3.2.4 Infantry - Germany.....	50
5.4 Battle Animation.....	51
6. Change Log.....	53

1. Vision

1.1 Treatment

Follow Link: [Project Messages Treatment](#)

1.2 Vision Statement

Frantically sort through intercepted messages to plan the next attack to win the war!

1.3 Design Pillars

- Find discrepancies to figure out which messages are real
- Use information to get an advantage when planning the next attack
- Watch battles play out as the enemy is revealed

1.4 Gameplay Synopsis

1.4.1 Uniqueness

- Papers Please: Project Messages is similar in how the player have to process the passports and documentation/intercepted messages and decide whether or not they are real. However, this is different in what the player will have to use this information provided. Papers Please has the player accept or deny people at the border which mostly just leads to money to spend. Project Messages has the player use the information in the messages to come up with a plan for the next attack.
- Risk: Project Messages will borrow the look of the maps from Risk as well as the method in which units will attack each other, however, the battles in Project Messages will be a bit more complex than Risk with different unit types and all units attacking at the same time.
- Wargame: Red Dragon: Project Messages has unique units that can be deployed like in Red Dragon like Tanks, Planes, Anti-Air, and Infantry, but this game is

going to be simplified compared to Red Dragon in numbers of units and will using turn-based mechanics over being an RTS.

1.4.2 Mechanics

There are 3 main mechanics of the game: decryption, planning, and battle

- Decryption is where the player must look for discrepancies in the intercepted messages to determine what information can be trusted.
- Planning is where the player deploys units onto the war map. The player can't see the enemy units on the war map, so they only have the information from decryption to go off of
- Battle is when the enemy units are revealed and each combat is displayed. Depending on how the units are deployed on each battlefield, the player can win: conquering a new battlefield and territory, lose: losing currently controlled territory, or defend: defending owned territory without gaining any ground.

1.4.3 Setting

An alternate reality of WWII. The game takes place in the capital of the country of Fenrir where the player spends most of their time in The War Room. The War Room is a mess of intercepted messages from the Gorik Empire. These messages contain a lot of misinformation, but hidden amongst them are the real plans the enemy has for an upcoming battle.

1.4.4 Look and Feel

The look and feel of this game is meant to emulate an intelligence office that might have existed in the WWII time period (1939–1945)

2. Gameplay

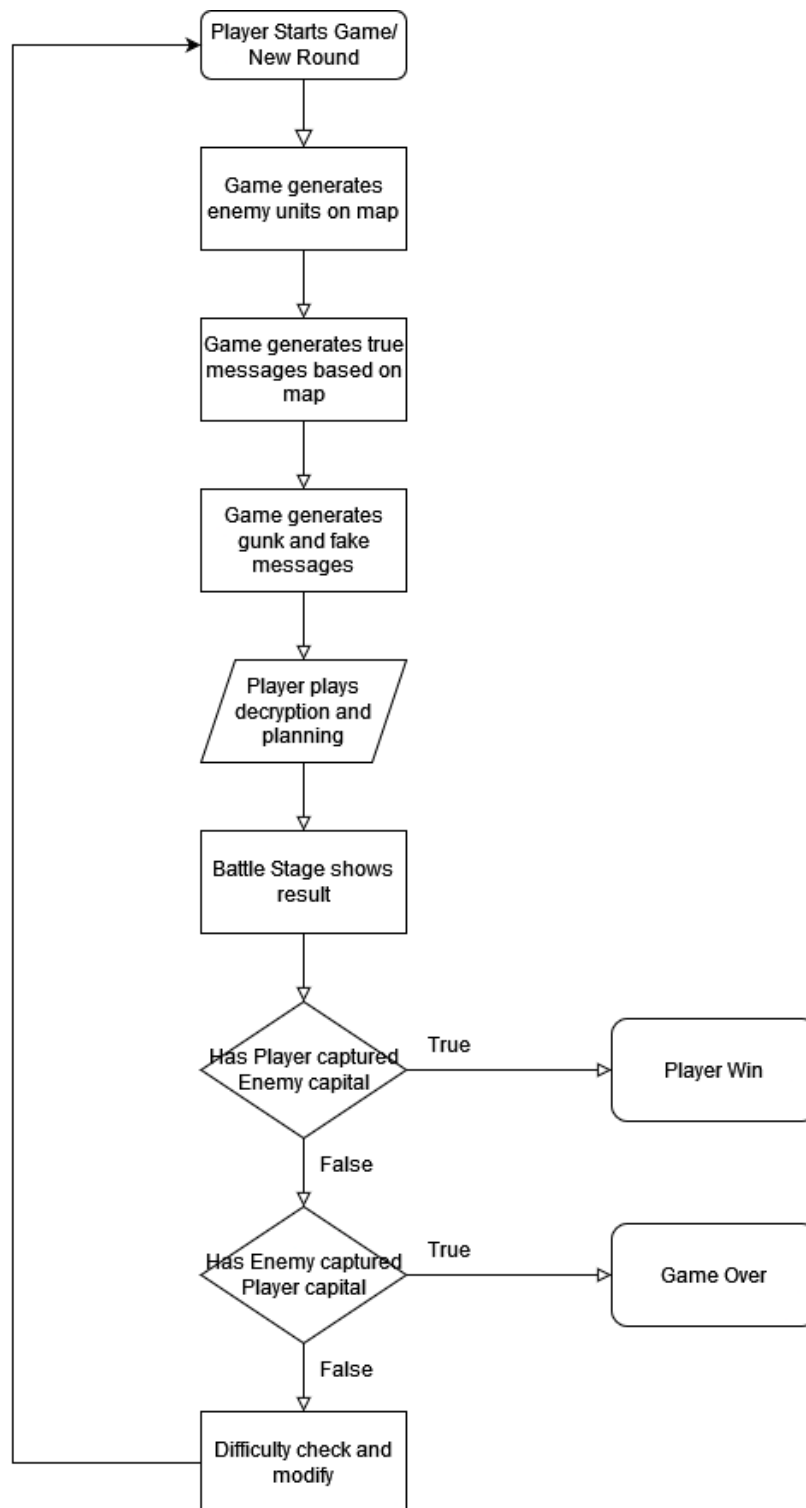
Note: all numbers and equations are subject to change

Gameplay is split between the Decryption/Planning Stage and the Battle Stage.

Decryption is where the player will go through messages and must determine if each message is real or not. The enemy's positions are not shown, so the player has only the information from decryption to go off of. Planning is where the player has to use the information they got from the decryption to deploy units for the next attack. Finally, battle is when the enemy side is revealed and player success is determined by how the player has positioned their units.

2.1 Gameplay Loop

This is the general idea of how the game goes and how messages are made



2.2 Decryption

Decryption is where the player will have limited time to go through as many intercepted messages as possible to get the most accurate information on what the enemy is planning.

2.2.1 Time

The player will have 10 minutes for Decryption

- There will be a clock for the player to see how much time is left visually
- WISH: There will also be a window in the rooms to show that it's night outside, but once the time is almost over, the music switches to a more stressful one, and the window looks like the sun is rising

2.2.2 Intercepted Messages

2.2.2.1 Template

All messages are made through premade templates that are modified as needed. (still in progress)

Follow the link: [☰ Intercepted Messages From The Frontlines Message Templates](#)

- When generating these templates, the information that gets filled in should be underlined to guide the player's eyes
 - WANT: have information about units and deployment location be highlighted while other information like generals, commanders, and date and time be underlined

2.2.2.2 Information in Messages

Each message can include information about the enemy's plans for the next battle stage. HOWEVER, this kind of information might be obscured by using keywords to replace the information. For more information about units go to [2.3.2 Auxiliary Units](#) For more information on how the map, territories, and battlefields work, go to [2.3.1 Map](#).

- Number of main and sub units

- Type of main units
- Battlefield location of units
- What is going to be offensive or defensive
- Events

There is also information that is used to confirm actual messages. These are primarily used to verify the message is true.

- Message ID
- General and Commander names
- Date
 - NOTE: Make clear to player that each round starts in the evening. So all messages should be from the day of and the context in the messages should be of planning for the next day.
- Timestamp
 - This is a [military time](#) time stamp.
 - This is mostly only useful for announcements and reinforcement requests
 - The player is in the war room from 1900 to 2400 (7pm - midnight)
 - Lore and world building stuff
 - Messages get sent from 2400 to 500
 - Battles take place from 500 to 1500
 - Gorik starts sending messages for the next wave 1500 to 1900

2.2.2.3 Message Type

There are many kinds of messages that all have different purposes:

- Information Messages
 - Information messages give the player information to use in the battle stages
 - This also includes warnings of events that can happen
- Rule Change

- Rule Change messages tell the player what to look out for in real information. In other words: messages that would normally count as a false message is now considered true.
 - Ex. There is an announcement explaining that letters from a general with a fake name are now considered true
 - Ex. Commander on battlefield bravo is dead, Orders should be ignored and new commander is in charge
- Note: the rule change will only affect the day that the message is found
- Distraction
 - Distraction messages are messages that are meant to give the player false information.
 - Often, these messages are modified versions of Information and Rule Change messages, but there is always a discrepancy in the message that indicates that it's a fake
 - These can also be junk mail with no direct information, but as difficulty increases, generals might use them as information messages

These different kinds of messages will look different from each other (again look at [2.2.2.1 Template](#) for a better idea)

- Letters
 - Letters are the most common intercepted message the player gets. These messages from generals and commanders noting their plans of attack.
- Reinforcement Requests
 - These are generals or commanders of different battlefields requesting or sending a main unit for reinforcements.
 - The player can interpret that the units will be used for the next battle.
 - Often there will be a responding letter of whether or not the reinforcements can come if it is a request.
 - There should be a timestamp for these reinforcement request and responding letter, if the returning letter has a timestamp before the timestamp of the request, player can assume false.

- Note: the player can likely also figure out what is coming with an inventory manifest.
- Inventory Manifests
 - These are often tables outlining what units the enemy has at a certain territory.
 - Can only have information about the number of all main units and total number of infantry at a Territory
 - Note, the different infantry won't be specified
 - There is a chance that commanders from other battlefields will request units from another battlefield in letters to bolster their attack in exchange for other units.
 - Ex. Commander from Territory Anna request 8 of commander from Territory Boris's planes in exchange for tanks for his defenses and the commander of Bravo agrees. If the player can find the inventory manifests of the battlefields, then the player can know how many planes Battlefield Alpha will have and how many tanks Battlefield Bravo will have.
 - To calculate how many of each each units the manifest should show =
Deployed + Request + Random (1 - 10)
 - Deployed: All the units deployed at the territory
 - Requests: All the units that the territory has accepted to send from reinforcement requests
 - When it comes to the time stamp, there are 2 ways to go about this:
 - Need: we establish that manifests are made first before requests are sent so all units are added before they are sent
 - Want: we have the manifest reflect on the time it is sent, so if the manifest was made after sending a unit, then the units aren't accounted for by the manifest from the requested territory

- Random: just a random amount for each unit, early game it starts low, but gets more random as the game continues
 - Makes things a little harder to math out what units are where
- Key Tables/Encryption key
 - Later difficulties will try and obscure what is being talked about by replacing words and these tables might have some or all of those changes.
 - There is only one Key Table per round
 - Similarly there is one Encryption Key message that has the real key
- Announcements
 - These are similar to Key Tables but will be a General announcing what are real messages.
 - These have a chance to show up on intelligence boards or in the intercepted messages
 - This includes:
 - Letters from fake generals are true
 - Ex. follow orders from General Fake Name even if he isn't a real general
 - Commander has been killed, ignore all previous commands from him
 - Keywords to watch out for
 - Ex. Hogs means Tanks
 - The important information needed for the day
 - message ID
 - Chemicals
 - Encryption Keys
 - These can also take the form of reports of events. (go to [2.3.1.1.2 Events](#) for more information)
 - In game context: These are like morning announcements. The date should be always be the date in the war room calender to be true
 - Announcements are the only messages to have a time stamp as well

- If an announcement that conflicts with the intelligence board. Which ever is later is the one that should be followed
 - Ex. announcement on bravo says commander died at 1400 when intellegence at 1500 says he's alive, then intelligence saw him first. (idea for letter: have commanders confirm with announcements)
 - Ex. announcement on alpha says commander died at 1400 when intellegence at 1300 says he's alive, then announcement should be believed.
- Invisible Ink
 - These are messages hidden on any other messages
 - The original message can be true or false
 - Messages with a PS after the main message will have invisible ink
 - The PS is often a riddle for which chemical to soak it in
 - These hidden messages will always be true despite what the message it's hidden on is.
- Junk Mail, Ads, and Newspapers
 - Just some humorous messages to distract the player for a good laugh
 - This includes bills, ads, newspapers, comics, etc.
 - later difficulties will use the information on the junk mail, ads, and newspapers for Information
 - Ex. a letter from Battlefield Alpha might mention the funny cat meme in the newspaper which mentions something about needing weapons to deal with birds
 - Ex. a letter from Battlefield Alpha referencing where the first letter in each row spells tanks.

2.2.3 False Messages/Obstacles

2.2.3.1 Discrepancies

These are ways the player can REASONABLY tell that a message is fake

- False Information According to Intelligence
 - This is what happens if there are wrong dates, names, and locations.
 - Locations refer to battlefields or territory
 - Ex. commander of Battlefield Alpha writes a letter to Battlefield Bravo for a request units to take a territory connected only to Battlefield Charlie
 - Names refer to generals and commanders
 - Due note that generals and commanders are mostly the same, however, commanders are associated with a specific battlefield while generals aren't associated with a specific battlefield
 - 2 different methods of making false info:
 - Random: these are completely random dates, names, and location and will often be easy to tell
 - Reference: These refer to names and numbers that are wrong with the given context.
 - Ex. A reinforcement request asking a commander from a different connected territory.
 - There is a random chance between the 2 set by difficulty
- Message ID
 - This is similar to False Information but a little more complicated
 - The message ID will start simply with a random 4 digit number that the player has to confirm in a different messages
 - Ex. ID: 1234 = [valid ID] on difficulty 2
 - Later difficulties make it harder by having that number be manipulated by numbers in the message
 - Ex. 1234 + [year of date] = [valid ID] on difficulty 3
 - There should be an announcement or letter explaining the ID situation.
 - Similar to Keywords, this may start appearing in places like junk messages

2.2.3.2 Invisible Ink/Chemicals

The game will try to hide keywords in any message through invisible ink

- There will also be 3 different chemicals to soak the message in to reveal this keyword
 - The player will have to drag a message and one of the chemicals into the tray
 - After 45 seconds, the invisible ink is revealed
 - (want) After 1:15, the text on the message starts to get warped
 - After 1:30, the message is ruined
- Using the wrong chemical will lead to all the words of the message disappearing
- This will always be the same chemical for the whole round (maybe)
- The tell for invisible ink will be a riddle on the bottom of the message that leads to the right chemical

2.2.3.3 Encrypted Messages/AT Machine

Messages have a chance to be encrypted with either a [Caesar Cipher](#) or a [Vigenere Cipher](#). I would like the encrypted messages to be accurate. To be decrypted, encrypted messages can go into the AT Machine. The player can input an encryption key (most likely hidden in announcements) in order to speed up the process. NOTE: Caesar Ciphers keys are numbers while Vigenere Ciphers are words

- If the player inputs a key (right or wrong), the machine outputs both the original and the translated messages in 5 seconds.
- Players should avoid inputting wrong keys since the machine only has 10 pieces of paper and it takes 30 seconds to restock more.
- If the player doesn't input the key, the machine will try to "brute force" the message and will output the correct message between 45 to 120 seconds.
 - If the player wants to cancel this, the machine takes 30 seconds to reset

2.2.3.3.1 Breaking/Fixing Mechanic

However, the AT Machine is prone to breaking. After a random amount of seconds (60-150 seconds) of being used, the machine will break and the spools need to be

realigned. The AT Machine will pause whatever function they are doing and resume automatically when the spools are aligned. The number of spools that get unaligned is random between 5 and 10



(model from Andrew, the spools are the colored circles, will need to edit texture to add tick marks to where the spools need to align)

2.2.4 Difficulty of Decryption

The game's difficulty gets harder as the player takes more of the enemy's territory. It should be noted that difficulty doesn't go down if the player loses territory. Difficulty will be based on: How much needed information is on one message, How many ways to tell if it's a fake message, and how the needed information is hidden. (need to add announcements for keywords)

- Difficulty 1 (0% - 20% of enemy territory captured)
 - Needed info per true message: 5 (1 true message per battle field)
 - Keywords: none
 - ID: none
 - Fake Message per Battlefield: .5
 - Fake message errors: 3
 - 100% random false info
 - Junk Messages: 1-3
- Difficulty 2 (21% - 40%)
 - Needed info per true message: 5 (1 true message per battle field)
 - Keywords: 1 unit type gets replaced by key word

- ID: Simple (random number, no manipulation)
- Fake Message per Battlefield: 1
 - Fake message errors: 3
 - 75% random / 25% reference false info
- Junk Messages: 3-4
- Difficulty 3 (41% - 60%)
 - Needed info per true message: 2-3 (2 true message per battle field)
 - Keywords: 1-2 unit type gets replaced by key word
 - ID: random number + or - number on date (month/day/year)
 - Fake Message per Battlefield: 1.5
 - Fake message errors: 2
 - 50% random / 50% reference false info
 - Junk Messages: 3-5
- Difficulty 4 (61% - 80%)
 - Needed info per true message: 2-3 (2 true message per battle field)
 - Keywords: all unit type gets replaced by key word
 - ID: random number + or - number on date (month/day/year) or # of units
 - Fake Message per Battlefield: 1.5
 - Fake message errors: 1
 - 25% random / 75% reference false info
 - Junk Messages: 3-5
- Difficulty 5 (81%+)
 - Needed info per true message: 1-2 (3 true message per battle field)
 - Keywords: all unit type gets replaced by key word
 - ID: random number + or - or * number on date (month/day/year) or # of units
 - Fake Message per Battlefield: 2
 - Fake message errors: 1
 - 100% reference false info
 - Junk Messages: 4-5

2.2.5 Player Actions/Tools/Controls/UI UX Layout

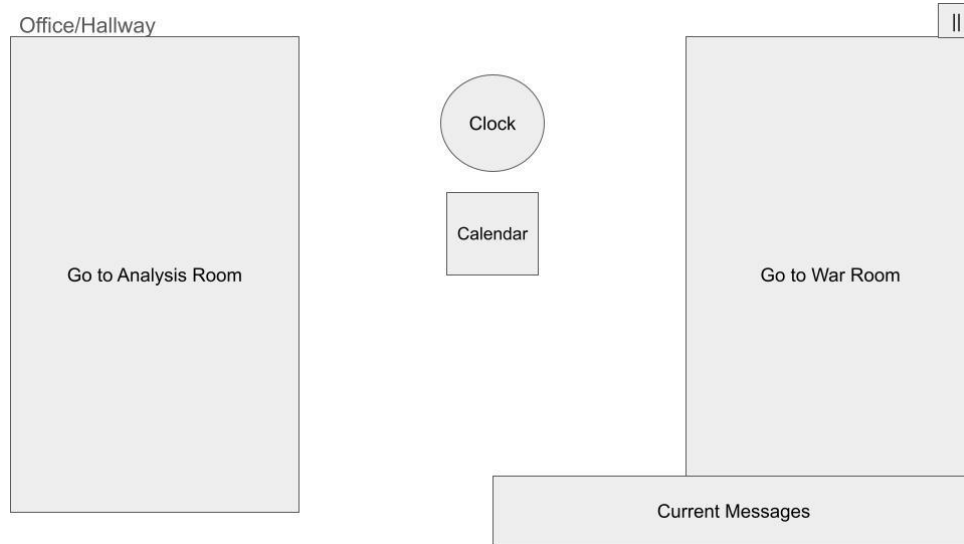
These are all the tools and interactives that the player can use during Decrypting and Planning. This game can be controlled by a mouse, but there are keyboard shortcuts for each area. Go to these slides for all UI/UX Layouts: [Project Messages UI/UX](#) . Go to these slides for the style guides for the UI: [UI Style Guide](#) (NOTE: Re order numbers and sections)

Universal Controls/Shortcuts

These are controls that don't really change and can be applied on any screen (except pause)

- Space will always focus on the Current Message being held
- S will always go back to the last area
 - Will bring un focus from Current Message if being focused on
 - Will go back from Corkboard to War Room
- The player should be able to left click and drag on messages (including unfocused Current Message) to move them into a viable spot (depending on screen)
- The player should be able to double click any message not in Current Messages to be able to swap it with the Current Message

Office

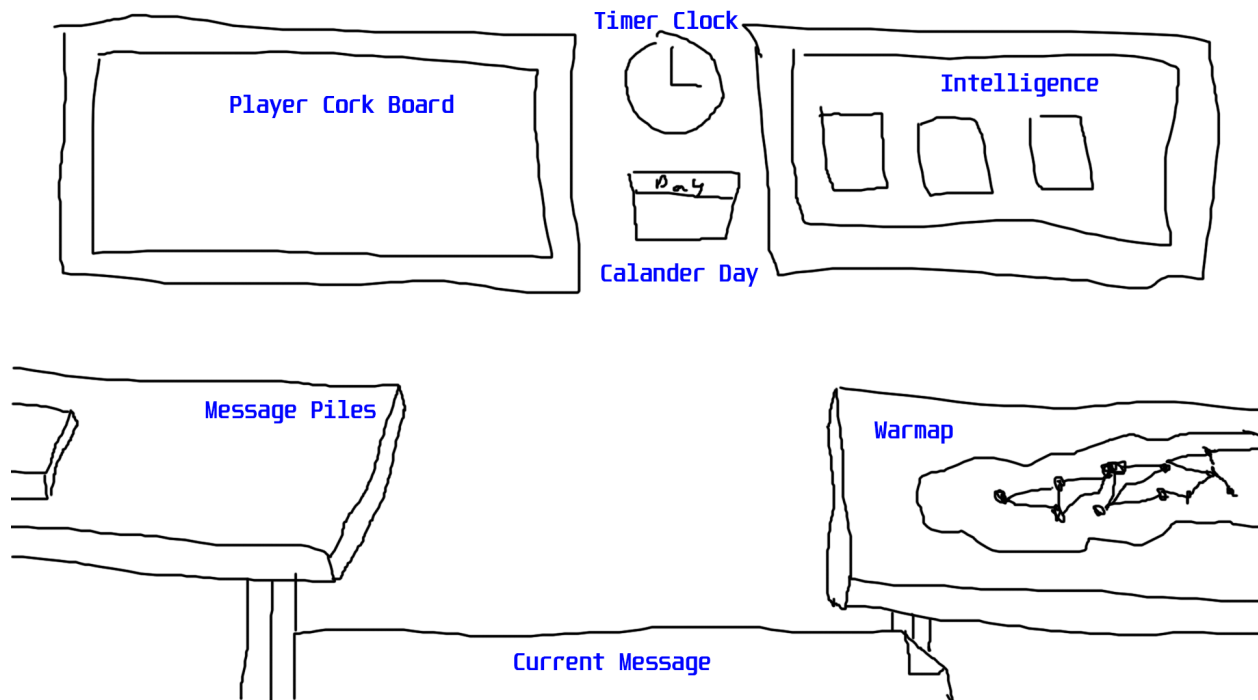


Layout for office

This is where the player starts each day. The player can go through either door to go to the war room or the analysis room.

- The player can left click a door to go to the respective rooms
- Default shortcuts to focus for this area area:
 - A = Analysis Room
 - D = War Room

2.2.5.1 War Room



Layout of the War Room

This is where the player isn't focused on anything.

- The player can Left Click on any of the labeled areas to bring them into focus.
- When in focus, a Single Left Click outside of the current in-focus area or a Single Right Click anywhere to get out of focus and back to the war room as a whole
- Default shortcuts to focus on each area
 - Q = Player Cork Board
 - E = Intelligence
 - A = Message Piles
 - S = Back to Office
 - D = War map
 - W = Timer and Calender

2.2.5.2 Current Messages

This is the current message that the player is holding. When not in focus, only the top of the page is showing from the bottom like in the image. (NOTE: have some indicator when this is empty). This is the only thing in the layout that follows the player when

focused on a different area. This is also the only thing that can be focused on while still focusing on another area (only when there is a current message).

- Left Click and Drag a message to move the message in here or out to another viable spot for the message

2.2.5.3 Message Piles

The player will have 4 message piles. One will have all of the new messages stacked on top of one another while the other 3 should be used for sorting.

- The player can Left Click and Drag a message on the top of a pile to move the message to a different pile or the current message
- If the player's Current Message is empty, the player can Double Left Click the top of a pile to automatically bring that message into the current message and focus on it.
 - If the Current Message is not empty, then the 2 messages swap positions.
- The player will also be able to Left Click above the Message Piles Table to look at the player corkboard

2.2.5.4 Intelligence

This is a board that the player can reference for important information that can be used to tell if a message is false. This can't be interacted with, but there should be a bell when new intelligence is posted. This also serves as the main way to communicate with the player. Furthermore, messages on the board has a timestamp on them (ex. As of 500 hours on [date]). NOTE: Might change this to a book for the player.

This includes:

- Commanders for each battlefield
- Top generals
- Announcements
- Difficulty increase (in the context of the enemy changing tactics)
- Scout information
- WANT: [Side Missions](#)

- WANT/WISH: have intelligence update in the middle of the phase

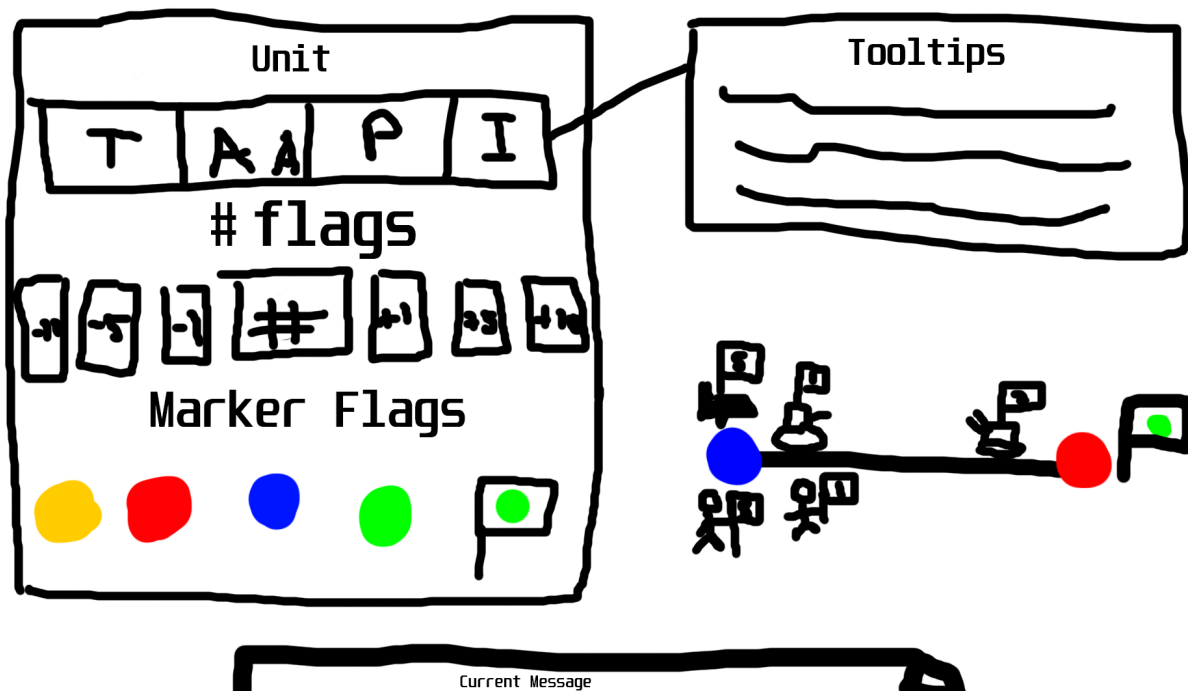
2.2.5.5 Player Corkboard

This is a place where the player can hang up important messages (up to 6) that they might want to look at later. Furthermore, important updates given to the player are placed here as messages.

- Similar to Message Piles, the player can Left Click and Drag a message to a different area of the corkboard or to and from the Current Message.
- WANT/WISH make this similar to the current message where the player can see this while focusing on other things

2.2.5.6 War Map

This is a map with all of the territories and battlefields. Here the player will be able to deploy units.



- The player can Left Click a battlefield to select it and focus on it
 - The player will then get a menu for the battlefield
 - The player can deploy units and/or mark down enemy units by dragging and dropping units onto the territory or battlefields

(territory for defensive units, battlefield close to territory for offensive units)

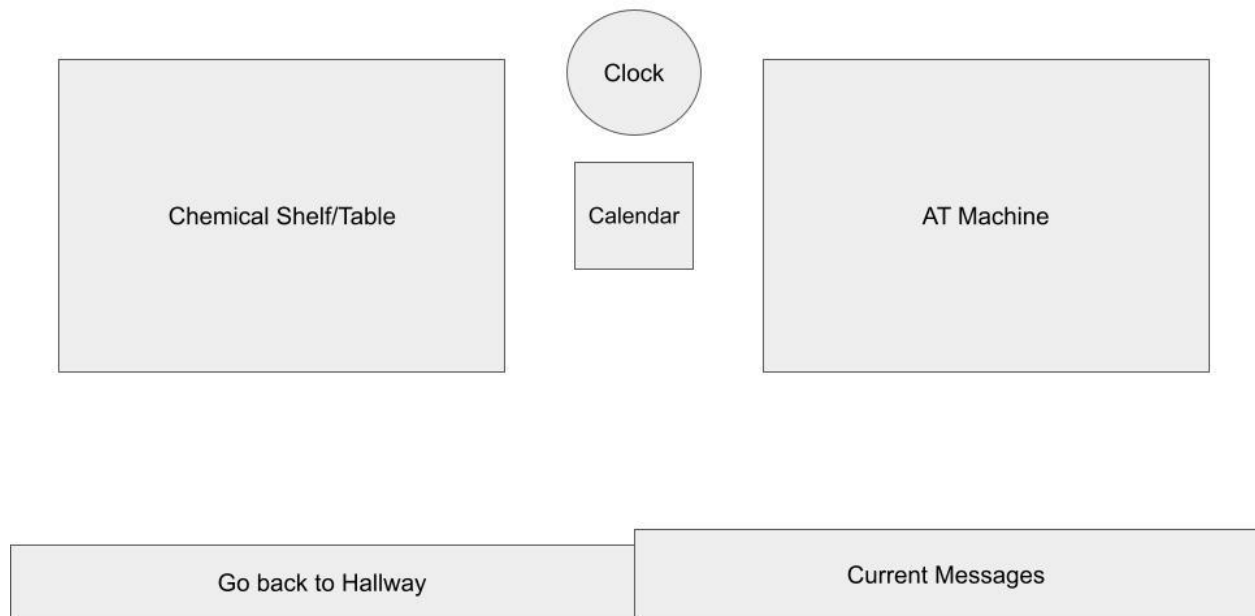
- The player can choose how many of a particular unit they'd like to deploy through the # flags by Left Clicking the + or - buttons until reaching their desired number and dragging the number flag to that unit on the battlefield
- The player can drag and drop marker flags to mark location for an event
- The player also gets tool tips depending on what they hover over like a battlefield for terrain or units in the menu
- The player can remove something by dragging the unit from the battlefield off of it
- The player can unfocus on a battlefield by Right Clicking
- NOTE FOR DESIGNER: ADD UI FOR # OF UNITS
- Deploying scouts is similar, but you don't need to mark how many. ([2.3.2.2.3 Scouts](#))
- The player has controls to look at the map better (want)
 - Scroll wheel will zoom in and out
 - Left click and drag on anything that isn't interactable moves the camera

2.2.5.7 Clock/Calendar

This is where the player can tell how much time is left in the decryption/planning phase. There will also be a button on the clock to skip the rest of the time. Under the clock shows the current in game date

Analysis Room

Analysis Room



This is where the player can process messages to reveal more information using the Chemical Station and the AT Machine

- The player can left click to focus on either the Chemical Station or the AT Machine
- The default shortcuts for this area:
 - A = Chemical Station
 - D = AT Machine
 - S = Office

2.2.5.8 Chemical Station

This is a shelf where the player can use one of the 3 vials of chemicals to coat the current messages to potentially reveal more information ([2.2.3.2 Invisible Ink/Chemicals](#) for more info)

- The player can drag a message from current messages into a tray
- The player can drag one of the 3 vials of chemicals into the tray
- The player can drag the tray up to dump the chemicals

2.2.5.9 AT Machine

Machine where the player can input [encrypted messages](#) to be decrypted

- Player can drag a message into the input slot
- The player can type in a key into the input slot
- The player can press enter or left click a button on the machine to start
- When the AT Machine breaks, The player can left click the spools to turn them 90 clockwise

2.2.5.10 Misc.

- Esc is the pause button.
 - The player can resume, load save, change audio, or quit. Look at [3.1 Pause Menu](#) for more information.
 - The player has a 1 minute pause timer. Each day, the player has 1 minute in the pause menu. Once that time runs out, they can still use the pause menu, but in game time resumes

2.2.6 Side Missions

This is a message on the intelligence board that lays out a side mission for the player to consider to get temporary bonuses. Depending on the mission, it can effect the current day or the next day.

- Take a specific Territory
 - Rewards affects the next planning day
 - Possible Reward:
 - Gain more main and sub units (5-10 each)
 - Gain more time for planning in the next day (2-3 min)
 - Deployments connected to the taken territory gains deployment strength (10-20 points)
 - Ex. Take a the territory connected to battlefield bravo, we have word they have POW we can save.
- Skip to battle early before X time
 - Rewards affects the next battle

- Possible Reward:
 - All deployments get a boost in deployment strength ($5-10 * \text{number of minutes left (min. 1)}$)
- Ex. Enemy is on the backfoot, battle early to ambush them.
- Reset the AT machine. Type the key: RESET into the machine. It will automatically break and needs to be fixed.
 - Rewards affects the current planning phase
 - Reward:
 - AT Machine runs 10% faster

2.3 Planning

Planning happens at the same time as Decryption. This is where The player deploys units for the battle phase.

2.3.1 Map



(Reference Image from Wargame: Red Dragon + Photoshop. Not what the map should look like in the game)

- The map can be thought of as nodes for territories (green and magenta dots) connected by fields (black and white lines). For this example, The green dots are friendly territory while magenta is enemy territory.
 - For Decryption, each enemy territory is assigned a commander and should stay the same commander until the player takes the territory or when intelligence notifies the player the commander died.

- When a player node and an enemy node are connected, the connection is a battlefield (black lines). Battlefields and the nodes that are connected are where the player can deploy units for combat (for more info, [2.3.3 Deployment](#))
- Each battlefield will be labeled by the [nato alphabet](#)

phonetic alphabet					A alpha	B bravo	C charlie
D delta	E echo	F foxtrot	G golf	H hotel			
I india	J juliett	K kilo	L lima	M mike			
N november	O oscar	P papa	Q quebec	R romeo			
S sierra	T tango	U uniform	V victor	W whiskey			
X xray	Y yankee	Z zulu	With this NATO alphabet chart you will no longer use "M as in Mancy" during a support call with your mom, or while defusing a bomb.				

Adapted from  outsource open

([Source](#)) NATO Alphabet

2.3.1.1 Terrain and Event

Some battlefields and territories have terrain that affects the deployment strength of units if conditions are met. Similarly, there is a chance that an event will happen on the battlefield that can affect deployment strength. The main difference between terrain and events is that terrain is consistent with each battlefield and territory while events are random and decided when units are deployed. Furthermore, Events only appear when the player goes into the battle phase, but the player can get that information from messages. Finally, unless specified, all boosts and debuffs are a percentage of the ORIGINAL deployment strength

2.3.1.1.1 Terrains

It should be noted that battlefields and territories can have different terrains. That means the Offensive vs. Offensive battles can have different terrain than Offensive vs. Defensive battles. (More details of these battles in [2.4.1 Combat](#))

- Fields: no terrain effects
- Mountains: planes get a 25% increase in deployment strength
- Open Plains: tanks get a 25% increase in deployment strength
- Desert: anti-air gets a 25% increase in deployment strength
- City: deployment strength increases by 50% of general infantry
- Swamp: offensive deployments get a -10% deployment strength if the main unit is Tank or Anti-Air
- Lake: defensive deployments get a 20% increase in deployment strength if the main unit is Tank or Anti-Air
- Port: Player currently controlling this territory can deploy 5 extra main and sub units (Territory only)
- Capital: defensive deployments get a 50% increase in deployment strength

2.3.1.1.2 Events

- Heavy Storms: offensive deployments get a -50% deployment strength
- High Moral: Deployments get a 10% deployment bonus
- Drought: -10% to infantry deployment strength
- Earthquake: -10% of main unit and 20% of sub units
- Tornado: Plane Unit are grounded, Deployment strength from plane units are automatically dropped to 0
- Perfect Weather: Terrain Effects is multiplied by 1.5 (Not including ports)
- Hero: A hero will increase the deployment strength by the number of the specific main or sub units that are deployed on a battlefield (Ex. if the hero is a plane unit, then the deployment strength is increased by the number of planes in a deployment) (this might be a want)

NOTE to self: maybe in lore, enemy faction has a weather machine/accurate way of predicting natural events? (idk maybe I can think more mechanics out of this)

2.3.1.1.3 Special Terrain/Events

These terrain or events aren't the same due to when and how they give a bonus and are more like mechanics than Terrain or Events

- Multiple Fronts Terrain: If a defensive unit has to fight 2 or more offensive units, the defensive unit can no longer get an advantage from their main unit. Defensive units also get a -5% to deployment strength for each offensive unit they have to fight. (Territory only)
- Momentum: On a specific battlefield, a unit wins the Offensive vs. Offensive battle but not the Offensive vs. Defensive battle, they get a 20% boost in deployment strength. This buff stacks by a diminishing (half) amount for each day the player or enemy consecutively gets momentum with a maximum of 3 days (first day of momentum is 20%, second day is 30% (20 + 10), third day is 35% (20+10+5))

2.3.2 Auxiliary Units

There are 4 types of units that the player can deploy: Tanks, Planes, Anti-Air, and Infantry. The amount of Units that the player can deploy is dependent on how much of the map the player has captured.

2.3.2.1 Main Units: Tanks, Planes, and Anti-Air

- These are the main units the player can deploy
- Only one of these types of units can be deployed on a battlefield
- These units have a strength value of 1 per unit deployed when fighting the same type of unit
- If a unit fights a different unit it has an advantage against, it gets a strength value of 3 per unit deployed. (look at [2.4.1 Combat](#), for more details on how this affects the game)
 - Tanks have advantage against Anti-Air
 - Anti-air has advantage against Planes
 - Planes have advantage against Tanks

2.3.2.2 Sub Unit

- These are units that the player can deploy along with main units or on their own
- Like main units, there will be different types of Sub Units. However, these types of sub units differ in how they support the main unit
- Furthermore, different Sub Units cost different amounts to deploy

2.3.2.2.1 General Infantry

- General infantry are units that can be added to the main units to increase the strength value of the main units that they are deployed with by 1 per infantry deployed
- Cost: 1 Sub Unit

2.3.2.2.2 Flamethrower Infantry

- Flamethrower Infantry are effective on Infantry, but not Main Units. They increase the strength of the unit by 3, but only increases the strength by the amount of infantry on the opposing side.
- Best to think of this as an infantry that cancels out other infantry
- Cost: 2 Sub Units

2.3.2.2.3 Scouts

- Scouts are Sub Units that don't actually deploy for battle and get deployed during the Decryption and Planning phase.
- The player only gets a max of 3 scouts that can be deployed at a time
- The player can deploy a scout along with a main unit type to an enemy offensive or defensive position on a battlefield
- After 45 seconds
 - If the player guessed the main unit correctly, the scouts return to the war room and adds a visual on the battlefield. Also they return half of the Sub Unit cost.
 - If the player guessed the main unit incorrectly, They can be assumed dead and the player loses 1 of the max scout. If the player loses a scout, the player has to play through 5 battles before they can replace 1.

- Cost: 6 Sub Units

2.3.2.2.4 Paratroopers (Want/Wish)

- Paratroopers are infantry that can be deployed on enemy defensive deployment, but have a high cost
- Considered another battle during Offensive vs Defensive phase of battle, but if the paratroopers lose, the enemy loses Deployment Strength by half of the Strength of the Paratrooper Unit
- If the paratrooper win, but all Offensive Deployment loses, The Defending territory is still given to the player. However, it is still subjugated to [2.4.1.1 Encirclement](#)
- Cost: 1 Sub Unit, 1 Main Unit + 1 Main Unit for every 5 Paratrooper

2.3.3 Deployment

- The player can deploy units to friendly territory that is connected to a battlefield
 - Each territory's deployment is also split between offensive and defensive
 - Offensive deployments are what attack the enemy territory
 - Offensive deployments are deployed to the battlefield they attack.
 - Defensive deployments are what defend the territory.
 - Defensive deployments are deployed to a territory and have the possibility of needing to defend from multiple battlefields
- **# of deployable main units = # of friendly territory (nodes) * 2 + 10**
- **# of deployable sub units = # of friendly territory (nodes) + 15**
- As mentioned in [2.3.2 Auxiliary Units](#), Each territory can only be deployed with 1 type of Main Unit and can be reinforced by one type of Sub Unit.
- Once the player has placed all of their units, they can proceed with combat

2.3.4 Enemy Generation

- At the start of each round. Enemies are generated randomly.
 - All offensive and defensive deployments are assigned a random main unit

- Using the # of deployable main units, randomly assign the number of main units
 - Using the # of deployable sub units, randomly assign the amount of sub units
- WISH have a more sophisticated AI

2.4 Battle

The battle is when the decryption and planning phase's time runs out and the enemy units are revealed. Each battlefield will be shown and depending on how well the player planned, the player can gain or lose ground.

2.4.1 Combat

- Deployment Strength is what is used to compare the player and enemy deployed units to figure out which side wins a battle
 - **Deployment Strength = (# of Main Units + # of Sub Units) + Bonuses**
 - **Bonuses:**
 - **All bonuses are calculated separately and added together**
 - **Ex. 5 Tanks and 3 General Infantry with Defensive and Advantage boost: (5 [tanks] + [3 infantry]) + (10 [adv.] + 4 [def.])**
 - **If the Main Unit has Advantage against the enemy: # of Main Units * 2**
 - **If this Deployment is a Defensive Deployment: # of All Units * .5**
 - **Terrain + Event Bonus (in their own section)**
- When Deployments battle, the 2 deployments compare Deployment Strength, and whichever deployment has the higher strength value wins the battle
 - Note: this does mean the battle can end with a draw. In which case both units lose
- Combat is completed in 2 phases: first Offense vs Offense, then Offense vs Defense
 - Offense vs Offense: On each battlefield, only the offensive deployments battle each other. Whichever side wins that battle continues to Offense vs Defense. After all battlefields have battled, The game transitions to the Offense vs Defense phase

- Offense vs Defense: Any offensive deployments who won the last phase now try battling the enemy's defensive deployments. If the offensive deployments win this battle the owner of the deployments wins the enemy territory.
 - Note: if multiple Offensive Deployments are attacking a defensive deployment, the multiple Offensive Deployment's Deployment Strength is added up for the battle. During this, the defending unit cannot get an Advantage Buff to their Deployment Strength
 - Note: if this battle ends with a draw, it is still considered a win for the Defensive Deployments

2.4.1.1 Encirclement

- After the battle, if the player or enemy surrounds a territory. The game will automatically give the territory to the surrounding army
- WANT/WISH: the game will remember the units that are surrounded and are taken out of the # of deployable units.

2.4.2 After Battle

- Once all of the combat has been completed. The player receives a report of what happened. This report will show
 - Territories won
 - Territories loss
- The player will also be able to review the map. Here the player can hover their mouse over each battlefield to see the battle and all the buffs and debuffs that lead to the outcome.
- Message Analysis will show the player 5 false messages that could've been likely to be believed and show marks on why they were fake.

3. Technical

This is for other features that need to be explained

3.1 Pause Menu

As mentioned in [2.2.5.10 Misc.](#) The player has a 1 minute pause timer. Each day, the player has 1 minute in the pause menu. Once that time runs out, they can still use the pause menu, but in game time resumes

3.1.1 Save and Load

The game will auto-save only after each Battle Phase. Do note, this also means that all the generation for the next round is done after the save to prevent the player constantly reloading the save for time. The player should load the results of the previous round as a refresher.

3.1.2 Audio

There should be a way to edit audio from master, music, and SFX.

3.1.3 Video Settings

- There should be a way to switch from full screen and window (Default is Full Screen)
- There should also be a way to change the resolution
- There should be a way to change FPS (The default is 60 FPS)

3.1.4 Gameplay

- There should be a setting for Battle between Quick Battles and Detailed Battles
 - Quick Battles means all battles are calculated and completed all at the same time
 - Detailed Battle goes through each battlefield one at a time.

4. Asset List

This is where the asset list is:  Project Messages ALR

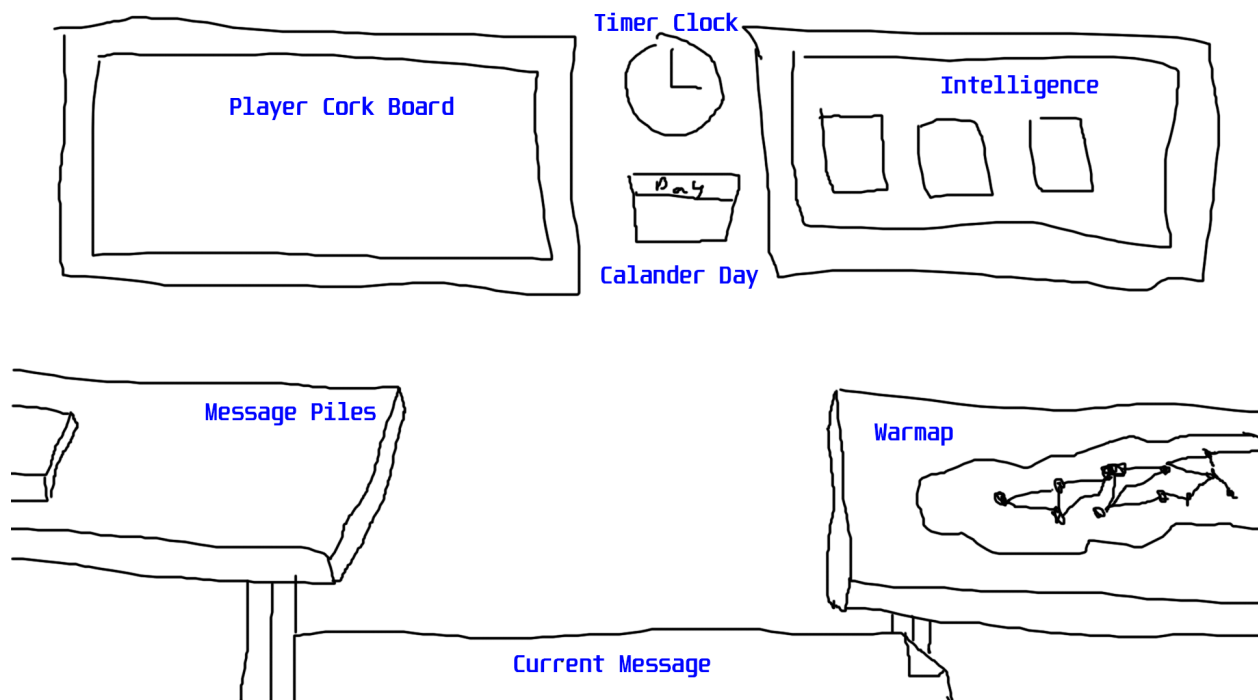
5. Art Direction/Reference Images

5.1 General Art Direction

I want this game to be low poly and have a darker color pallet. Because of this, modelers and textures should take advantage of baking to put more details into models. We want to go for realism if

5.2 War Room

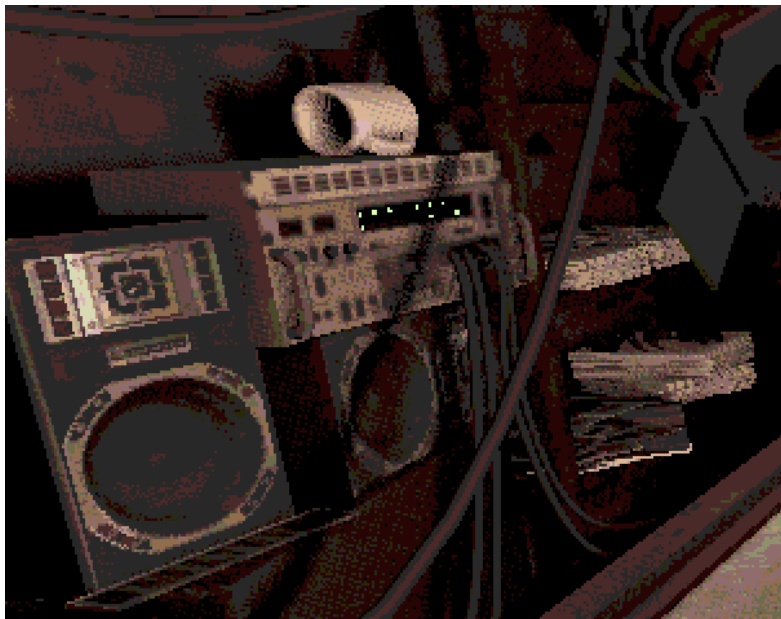
This is the area where the player plays the Decryption and Planning Stage. Because of this, I want this area to be a little chaotic. I don't want mountains of paper everywhere (I still want the player to be able to clearly see everything we need them to see), but enough to convey the stress of a war. I want the props to be simple like in Buckshot Roulette's props and items (without the horror or disturbing atmosphere or technology). Everything in this section are things that I believe might need more explanation design wise, If the Description in the ALR is not enough, contact the designer or comment here. (Layout)

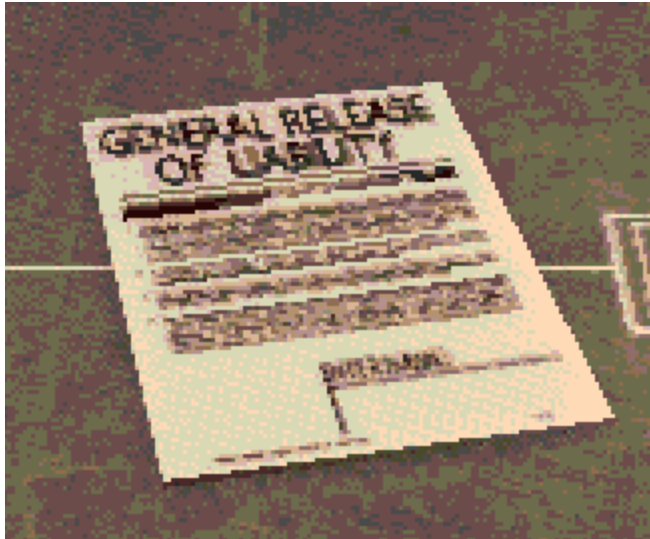


([Source](#))



(Source: Buckshot Roulette)





5.2.1 War Map

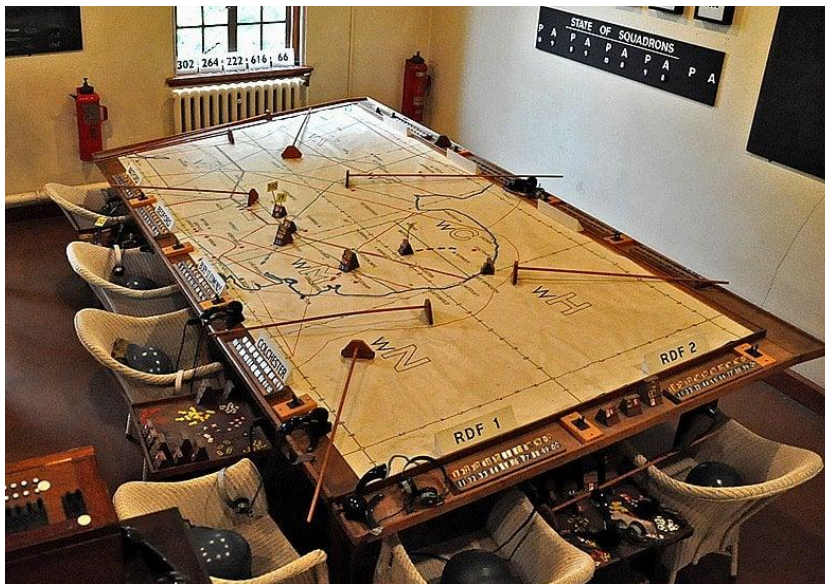
The war map is going to be a table where the battle stage takes place. In this game, the map should be more focused on the 2 warring countries: Fenrir and Gorik. This might

be made near the end of development due to the map needing to be balanced. (WANT: maybe make the map in game OR have settings of each terrain placements).

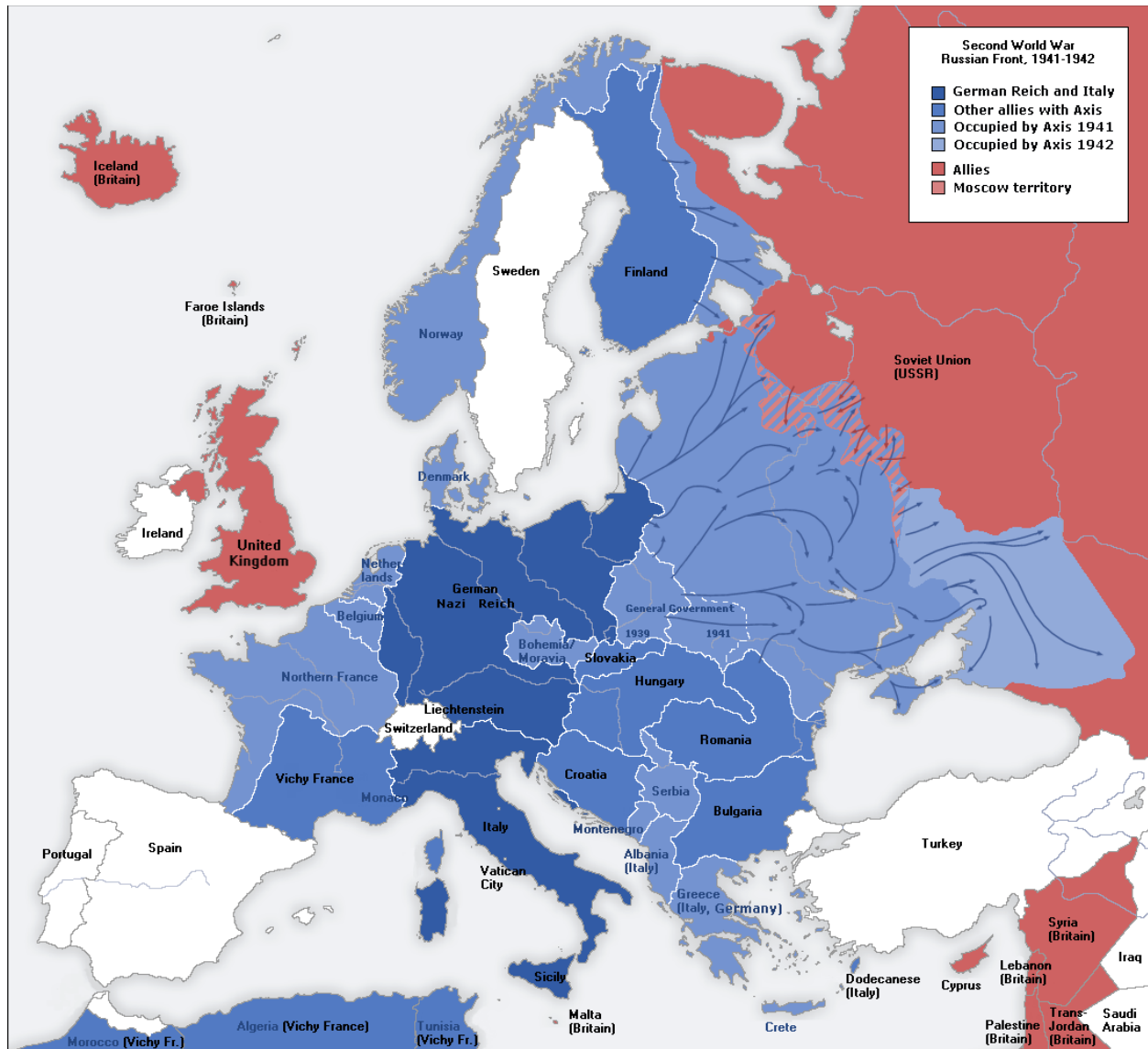
([Source](#))



([Source](#))



([Source](#))



5.3 Units

Units will be differentiated by different models and colors. These will be on the war map, so the units will be pretty small. The aim is to have almost wood whittled into models for these Units to go on the war map. For Battle Animations: I want realistic versions of these vehicles. If we have time, I'd like multiple kinds and textures of each vehicles so the player isn't looking at the same thing over and over again.

Color Pallet: Unit Color Pallets

([Source](#))



5.3.1 Player

The player's models will be based on The Allie's vehicles from WWII. Furthermore, the UI will indicate player units with blue and white, while the unit models should primarily use green for the color scheme.

5.3.1.1 Tanks

NOTES:

- Turret, Tracks, and Guns will need to move for animations

M4 Sherman

([Source](#))



Matilda II

([Source](#))



5.3.1.2 Plane - DH.98 Mosquito

NOTES:

- Propellers will need to move for animations
- Will likely not get to it, but the aileron, rudder, and elevator should move in animations (note the Mosquito is the only plane to have bomb doors)

DH.98 Mosquito

([Source](#))



P-38 Lightning

([Source](#))



5.3.1.3 Anti-Air

NOTES:

- Tracks/Wheels and Guns will need to move for animations

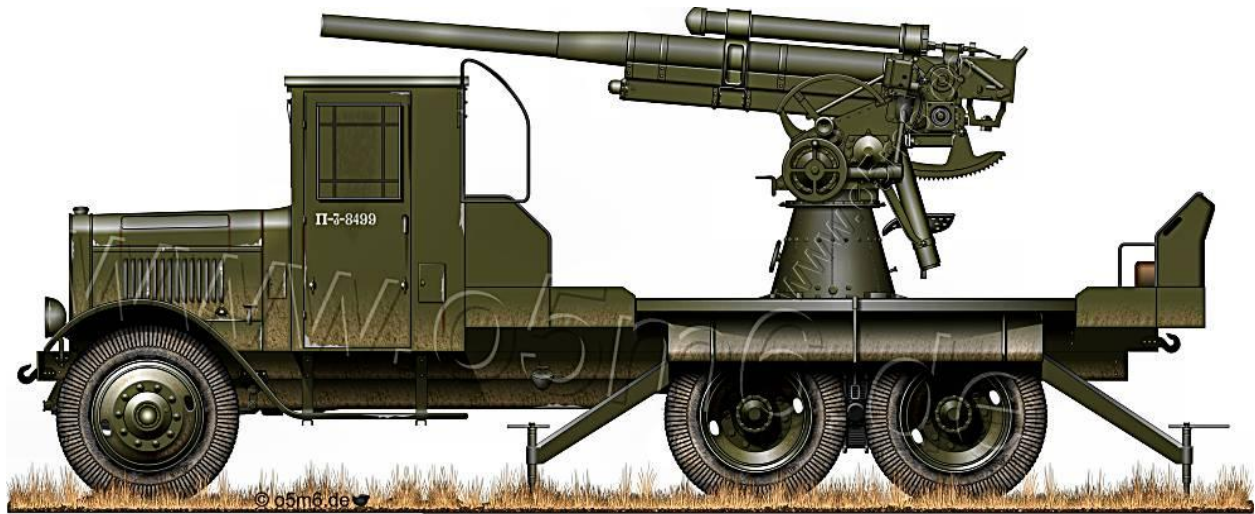
M16 Multiple Gun Motor Carriage

([Source](#))



YaG-10 AA

([Source](#))



5.3.1.4 Infantry - French Infantry

([Source](#))

NOTES:

- This is going to be very small, so please simplify this if needed
- Details to keep:
 - Helmet design
 - The general design of the coat
 - Pouches and bags
 - Bolt action rifle (MAS 36 to be specific)
- The soldiers will need to be posed in a way where each unit is looking through their gun like a green soldier



([Source](#))



5.3.2 Enemy

The Enemy's models will be based on The Axis vehicles in WWII. Furthermore, the UI will indicate enemy units with red while the models should primarily use greys and yellows for the color scheme.

5.3.2.1 Tank

NOTES:

- Turret, Tracks, and Guns will need to move for animations

Panzer IV

([Source](#))



Type 97 Chi-Ha

([Source](#))



5.3.2.2 Plane

NOTES:

- Propellers will need to move for animations
- WISHES/WANTS the aileron, rudder, and elevator should move in animations.

Mitsubishi A6M Zero

([Source](#))



Messerschmitt Bf 109

([Source](#))



5.3.2.3 Anti-Air

NOTES:

- Tracks and Gun will need to move for animations

Flakpanzer I

([Source](#))



Flakpanzer Gepard (for naming purposes, please just use Gepard)

([Source](#))



5.3.2.4 Infantry - Germany

([Source](#))

NOTES:

- This is going to be very small, so please simplify this if needed
- Details to keep:
 - Helmet design/shape
 - The general design of the coat
 - Pouches and bags
 - Submachine gun (MP40 to be specific)
- This will need to be posed in a way where the soldier is looking through their gun

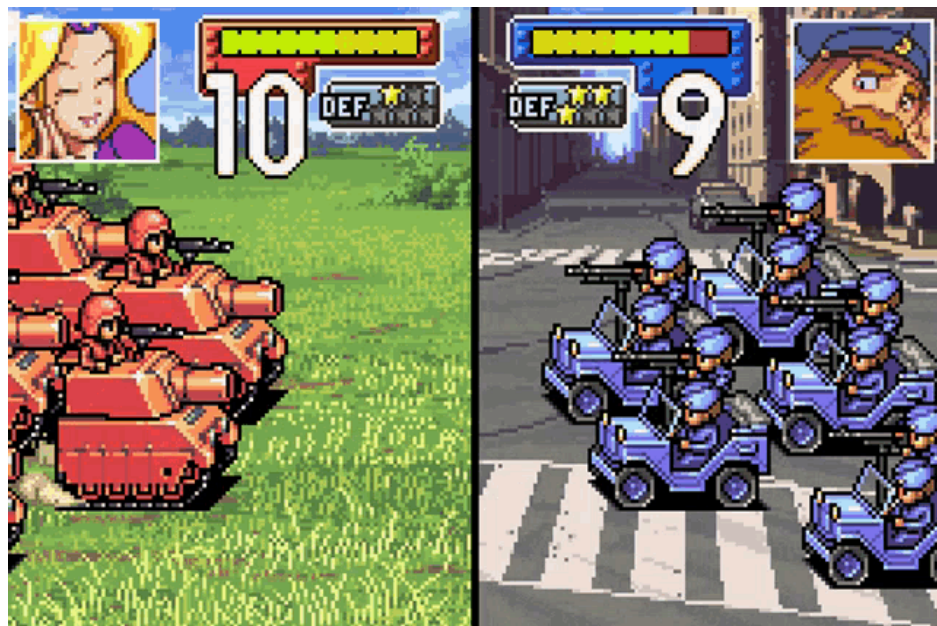


5.4 Battle Animation

When each battle happens, I want it to be similar to Fire Emblem's and Advance War's battles. For more information, look at this doc:

[Project Messages Battle Stage / Terrain Info](#) .

- There will be a detailed option vs quick option.
 - Quick option just stays on the war map and quickly goes through each battlefield to show the result with little animation (winning side just shoots gun and moves in)
 - Detailed option looks more like how Advance Wars where they show more detailed models of the units with a backdrop of the terrain they are in.
 - If the unit is offensive then they roll into frame (left in advance wars ref image below)
 - If the unit is defensive, then they are already in frame (Right in advance wars ref image below)
 - I'd like to show the base unit power (the Deployment Strength when only counting the Main and Sub units) and have all the buffs (terrain, advantage, events) count up the scores until it's fully calculated
 - During this both sides are firing guns until the final score when shows up where the losing side blows up
 - Want: we can have multiple models of each unit type in these animations



([Source](#)) Reference GIF from Advance Wars

6. Change Log

- Past changes:
 - Added [AT Machine](#)
 - Added [Chemical Station](#)
 - Added new [infantry types](#)
 - [Battle Animations](#)
- 9/15/24 - 9/16/24
 - added more [terrains and event](#)
 - Added more [models for units](#)
 - Added [time stamp](#) system for [reinforcement requests](#), [announcements](#) and [intelligence board](#)
 - Added [Pause Menu](#) Timer
 - [AT Machine breaking/fixing mechanic](#) and [controls for it](#)
 - Added [Side Missions](#)
- 10/5/2024
 - Added a want/wish to [Time](#)
 - Added to [Templates](#) to underline and highlight important information
 - Edit [Templates](#) to fix issues when generating
 - Updated [Message Types](#) to better represent how they should work
 - Specifically: edited Manifests and added Invisible Ink
 - Added a 3rd section to [terrain and events](#) for [special terrain or events](#) that don't fit the rest