

NQP2, this time it's real (time).

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Basic concept

Each level takes place in a series of rooms. Each room is an interaction, such as an Inn or Combat. After each room is complete the player picks which of the new connected rooms they want to visit.

Combat is the core loop and other interactions allow for opportunities to plan and prepare for the Combat with new or improved Units and Actions.

The tone is light-fatalistic.

Each run is expected to last between 1-2 hours and take place over 3-4 levels.

Reference Pitch

A combination the following:

Combat: <https://youtu.be/5Gaw3A-ZQQQ?t=482> (until 08:29)

Level select / Overworld: <https://youtu.be/puSI7dOC-fg?t=582> (until 10:35)

Event: <https://youtu.be/VIm5mUzPlt4?t=517> (until 8:58)

Goals

1. Quick to value. Get something playable asap.
2. Simple components creating complexity through interaction.
3. Minimum functionality. Controller only. No key rebinding. If it doesn't make the game playable then it isn't to be included (yet, anyway).

Game Elements

Overworld

Shown as a map, representing the game world. Player chooses a Level.

Level

A level is made up of Rooms. After each Room is completed the player can choose between 1 and 3 options for new Rooms. A player can never move backwards or return to a previous Room; i.e. every Room is new. A level culminates with a Boss.

Room

A Room is the representation of an interaction. Rooms include Combat, Training Ground, Inn, Bazaar and Unknown (which is to say, random).

Inn

The Inn is a Room that offers the chance to buy new Units and remove Injuries of existing ones. Each Inn offers a random collection of Units, weighted to offer more common ones. Units offered are predominantly those that are from the Allies of the Commander. Rarer Units are more likely to spawn in later Levels.

Training Ground

The Training Ground is a Room that offers the chance to upgrade Units and buy Commander Skills. Rarer upgrades and Skills are more likely to spawn in later Levels. **The type of upgrades needs more design thinking.**

Bazaar

Commander upgrades and Items are sold here. Commander upgrades improve the Commander's stats. Rarer items are more likely to spawn in later Levels.

Combat

Combat is a Room where Units follow predefined behaviours to fight enemy Units. The player can trigger Actions to influence the Combat.

Combat's have Tiers, which indicates the difficulty.

Combat scales with the game Level.

Traps

Traps can spawn in Combat Rooms. They are neutral and periodically deal damage to any Units within range.

Surrender

At any point in any normal Combat Room, i.e. not the boss, the player can choose to surrender. This causes a defeat meaning no rewards are given. The advantage is that the player limits the number of Injuries received as while dead units still receive an Injury alive units only have an X% chance of receiving one. The Commander starts with a limited number of surrenders.

Post-combat

After combat, the player is shown their results.

If the player won, Rewards are shown on screen for the player to select to collect. New injuries are indicated by a brief, floating icon above the Unit. Dead units return to their space and then follow the death animation, before leaving the player's Troupe. All units return to full health.

If the player lost (does not include surrender), it is game over.

References



<https://youtu.be/5Gaw3A-ZQQQ?t=483>



<https://youtu.be/li8Y6h66UKY?t=1066>

Event

Events are intended to offer variety and story flavour and they have a chance of triggering when entering a new Room, up to a maximum number of times per level. Events include a description and a set of choices. Once the player has made a choice text is added below the description, explaining the action taken. An animation then plays to show the effect of the action. Once an event has triggered it should not happen again in the same run.

Description

Static text. Can be extended to allow for multiple colours.

Choice

Several options. Each option will have an effect, such as adding a new Unit, upgrading Units, adding new skills or orders.

The outcome of the event can be shown at a high level, e.g. “+gold” or “unknown”.

Functionality

Events need to be able to:

1. Amend resources.
2. Identify random units and apply upgrades, injuries etc. to those.

3. Unlock new events.

Conditionality

Some Events are only available when certain conditions are met, such as having specific Allies or a unit with X number of injuries.

References



Unit Placement

A player's Units begin each Room within their position on their placement grid. The player can rearrange these any time outside of an active Room, such as during Combat or when there is an Event pop up.

Injuries

If a unit dies in combat they receive an Injury. Injuries place a negative reduction on the Units effectiveness, with different Injuries having different effects. In addition to the effect of the specific Injury, each Injury reduces the Unit's Maximum Health by X%.

Injuries are removed at the relevant Room or by Events.

When a Unit receives Y Injuries they are killed.

Commander

The player picks a commander from a predefined list.

Stats

A commander has some stats;

1. Charisma, the number of Units they can have.
2. Morale, the number of surrenders they're allowed.
3. Knowledge, the number of Skills they can know.
4. Vim, the amount of energy regenerated in Combat.

Skills

Skills are used during Combat. All Skills have a cooldown and a cost to use. Every X seconds the commander regenerates Y energy.

When the player wants to use a Skill, assuming they can afford the cost, they choose who to target. The cost of the Skill is then deducted from the commander's energy.

Combat speed slows down when a Skill is being targeted.

Skills are ways of the player influencing Combat. Do damage, applying effects such as slow or more damage. Commanders start with 1 signature Skill.

Skills have levels and improve as they level.

Skills have a cooldown. This cooldown reduces with each new Room the player travels to.

Targeting

There are 3 options for targeting:

1. Global - this affects all valid units.

2. Unit - a specific Unit is chosen.
3. Ground - a position on the ground is chosen.

Allies

Each Commander has a set of Allies; this determines the Units most likely available to the player during the game and the Skills the Commander can learn.

Units

A Unit is a group of entities.

Each entity has some basic stats; health, defence, damage, attack speed, range, move speed, ammo.

A Unit has a type and class.

A Unit has a rarity, indicating its likelihood of appearing.

Class

Each Unit has a class. This gives an idea of the stat values they will have.

The classes are:

1. Light Infantry
2. Heavy Infantry
3. Cavalry
4. Ranged
5. Support

Death

When a Unit dies they are removed from the player's Troupe and the player is informed at the first available instant outside of the Combat scene; this is likely to be after Combat but could also happen after an event outcome that applies an injury. Note that loss of health in combat doesn't result in death, only the application of an injury.

Ammo

When a Unit runs out of Ammo it's range is set to melee range, forcing the Unit to enter melee combat.

Bosses

Each set of Rooms culminates in a Boss fight. Losing to the Boss ends the run, resulting in a loss. Boss Combat is different to normal Combat as the enemy has their own Commander who can use Skills, however **for MVP**, this will just be a tougher Combat than normal, without an enemy Commander.

Gold

A resource used to pay for all things, e.g. upgrades or new Units. It is gained from Combat and Events.

Saving

No manual saving, autosave after each Room is completed.

Levels

A level indicates the map number the player is on.

Items

Items function as passive improvements, even if that is a passive chance of something active happening (e.g. chance of triggering chain lightning on attack). Items tend to affect only a specific Class of Units.

Items have a rarity which correlates with their power and negatively correlates with their chance of occurring.

Items can be bought, earned through Events and after Boss fights.

Controls

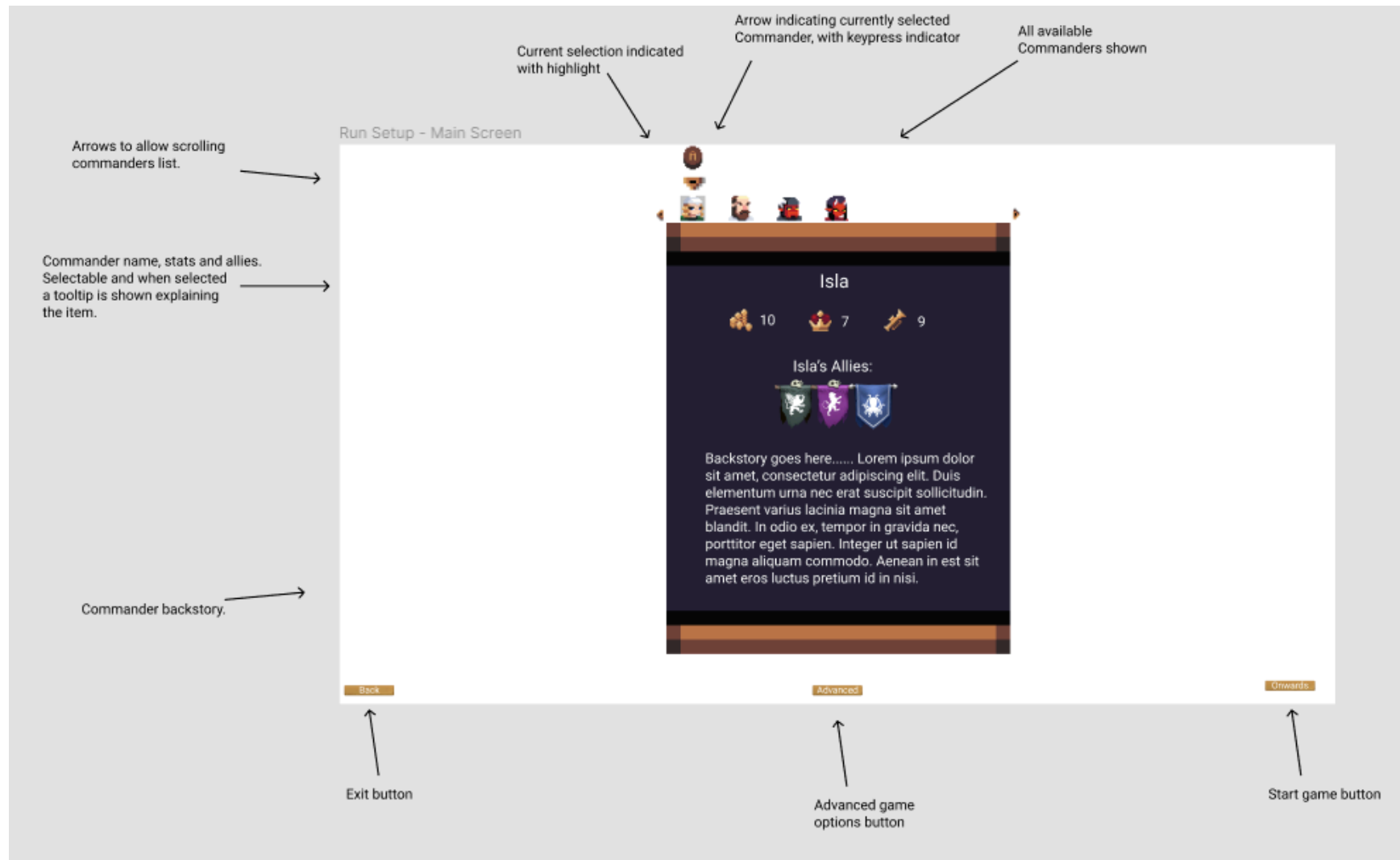
Controller focused, keyboard secondary.

Screens

Main menu

Run Setup

Main Screen



Options menu

Overworld

Combat

Placement

In Progress

Using an Action

Victory

Defeat

Inn

Training Ground

Event

Dev Tools

Data Editor

A mouse driven interface to allow setting of data, whether Unit, Commander or anything else externally handled.

Combat Balance Analyser

A tool to allow running a headless (non-UI) version of the combat many times, recording the outcome of each for review by the developer. Can set the combatants or test all commanders etc.

Data Validator

A tool to check that all data files are as expected and contain the expected entries. Also to check that related information exists, e.g. that there is a corresponding folder with the same name for each Unit data file.

Data Schemas

All external data is stored as a json file. The file must be named the same as the “id” or “type”, whichever the schema has. See wiki for full details.

This section is where design and story ideas are put up for discussion. After an idea is discussed and approved it will be moved/incorporated into the appropriate section of the Design Doc.

Q&A

Q. Goal #3 appears to be going out the window. I'm not sure what those menus were for, but they contained input fields, which doesn't work well with controllers.

A. The screen was a dev-facing data editor. Users won't see it. There may be some input required by the player, such as setting the seed, but not for the short term. I'd assume use of an onscreen keyboard when we get there.

Q. The areas that I will be working on should be specified so that I can push for more details in those areas.

A. Difficult to clarify in the design doc as there isn't a standalone section that I can assign. However, you're right that it will mostly be AI and visuals.

Q. The allies concept for commanders seems a bit inefficient. I'm not sure we have enough units in the asset pack for there to be substantial variety if each commander has a restricted set. I'd recommend having some sort of stat boost for using allied units. This would allow for more variety in gameplay from choosing a single commander while still making the choice of commander important.

A. I think there are about 12 units in the asset pack, per group. If it feels limited then I'd consider what you've suggested.

Q. I'm not really a fan of the dead ends in your example Overworld layout. Do you have any reason for not using more FTL or Slay The Spire like maps? I'm pretty sure there are several reasons why that format is used in most roguelikes. I could probably look into it and make a list if you want.

A. The dead ends are me being bad at mock ups; there shouldn't be any! I've corrected the mock up. The Overworld should follow the same approach as FTL or STS, but I want it to look like an actual landscape rather than lines on a flat screen.

Q. How many AI behaviors do you want? What are they? I can come up with a list if you want behaviors that are efficient in generating variety for low development cost if you'd like.

A. Not sure on total number, I am thinking 4-6. I'd definitely be interested in your suggestions.

Q. What is the full scope of the unit variety? Presumably some will be using projectiles and creating other effects. Is the implementation of new units something you'd like to do or is it something I'm doing? If I'm implementing all of the units, I'll need a list with their behaviors. Either way, I'll need a list of mechanics that units will be capable of using. (One already being implemented is AI, but others could include spell casting or projectile creation.)

A. We need projectile creation. I'm intending to add the units, but would like you to create the flavours of AI, the animation handling and projectile creation. The only other element is splash

damage, which would include the relevant particle effect or animation playing. I do want to add abilities to the units, but that feels like a massive increase in scope, so I'll ignore it for now.

Q. Is unit placement going to be strictly kept to a left-right alignment based on team? (the player can only place on the left side for example)

A. I'd like to be able to specify areas of placement per combat. See Combat\Data.

Q. What is the extent of the terrain variety? Anything that creates a corner that isn't on the edge of the map will result in a need for a more complicated pathfinding algorithm (most likely A*). Integrating this into a variety of AI behaviors could take a large amount of time.

A. I was hoping for scattered across the map. In NQP we used this <https://python-tcod.readthedocs.io/en/latest/tcod/path.html> to handle the A*.

Q. How is the list of units the player can place going to be managed? Are we throwing out the card system in favor of a full selection of the roster?

A. Yes, no need for cards (I did mention this a while ago!). See Screens\Combat\Placement for how to handle the list of units.

Q. I take some level of issue with the proposed inconsistent pixel sizes (mainly seen on the unit selection). If injuries are shown as icons, there's not a good way to overlay it over the unit icon without making the pixel sizes inconsistent (as seen in your picture). I was imagining more of a popup showing you the stats, injuries, etc. of a unit when you hovered it.

A. I think key information needs to be shown and while we've only got prebought assets we need to live with the varied pixel resolutions. I'm not a fan of it, either, but I think it is the lesser of the evils.

Q. Are most inputs going to be shown as an option visually with controller button icons?

A. Whatever we're doing there should be an indication of what buttons can be pressed. I'm flexible on whether those are listed at the bottom of the screen or next to the selector. They should reflect whatever the actual key options are, whether the player is using a keyboard or controller.

Q. What are the "system menu icons" for?

A. Ignore, I've now removed them.

Q. Why does it say "units" with an arrow pointing to a section that says "map border"? Is there a UI element overlay there?

A. It was pointing to the units beyond the map border, however I have moved the arrow to make it clearer. And the map border should be made of impassable terrain.

Q. Are you sure you want the health/status bar to be a ratio? It paints a semi-unclear picture. For example, if both teams are at 50%, it looks the same as if they're both at 100%. I could propose some other designs if you'd like.

A. I want to show progress and worry that entities not having health might make it too difficult to tell how things are going. However, once we have proper animations in, so entities show when they are hit and fall over dead then perhaps that will be enough.

Q. Is there a cap on the number of actions the player can acquire? How are they acquired? Can you provide a list of actions you'd like me to implement or a list of mechanics you intend to utilize in the event that you're writing the top level code for most of the actions?

A. Yes, I will provide a list of actions. I am thinking of limiting the number of Actions to 3 or 4. I think it might be better for you to write the systems so I can reuse them when making other Actions, though I am aware that from what I've seen you tend to write your code in a way that allows it to be used for a specific instance but isn't so focused on being a system that be used as a foundation to build from, so if you'd rather do it differently we can discuss an approach.

Q. Do all actions have a per unit or AoE targeting system? Would you want a global category or other categories?

A. I think just those 2; either target the floor or target a specific unit (and effect all the entities in the unit, regardless of actual position). Sorry, not sure what you mean by global or other category, could you elaborate?

Design Ideas and Concepts

Rejected ideas will be ~~struck through and turned red~~ - do not delete as we may return to rejected ideas in the future.

Narrative / storytelling

~~Each commander could play a different role in the overarching story, making each commander a unique experience narratively.~~ Then to make each run unique (even if playing the same commander) we could introduce random events and nodes that offer story 'flavour'.

Commander ideas

Commanders have unique stats, backgrounds and skills. Each commander has the ability to learn 5 different skills, of which the player can learn 3 over the course of the campaign. Initial ideas are that these skills are purchased, earned from events, or are part of a levelling progression system based on EXP earned per combat victory.

- Noble's son - bit of a brat, slightly incompetent (trait: reduced upgrade benefit from training nodes), but access to high amounts of starting gold and a weekly allowance (every 7 nodes get X gold income passively)
- Ruthless leader - strong, fearless, rules through fear and works units to their limit (Trait: Increased attack bonus for all melee units - increased effectiveness of training nodes)

- Inspiring leader - compassionate, respected, inspires their troupe to fight to their last breath (Trait: increased health or all units - increased morale/charisma)
- The tactician - master in the tactics of war (Trait: all units buff each other based on proximity), but somewhat cowardly
- The wild card - random upgrades and benefits per level/node. Increased chance of random events (Trait: increase the level cap on random events that can trigger by X)
- The engineer - a master tinkerer specialising in ranged weaponry (Trait: all ranged units gain an attack increase)
- Custom Commander - player can choose their own stat allocation based on a bank of available points, choose their skills, trait, and any other commander's signature ability. Idea: custom commander is only available after the player has completed a playthrough with a preset commander (because why would they ever play a preset if custom is a choice?)

Nodes

- Passing of time is measured using nodes, where 1 node completed = 1 day passed. UI should include a day counter to give the player an indication of progress and time passed
- The Boss Combat node can be engaged at any time upon reaching it. However, if not engaged, the boss will continue to get stronger every X days that pass. After a total of X days spent on a level, the boss will be at full strength and Boss Combat automatically triggered

Commander Actions

Each commander has the potential to learn 5 different skills, of which the player can only learn 3 over the course of the campaign. Initial ideas are that these skills are purchased, earned from events, or are part of a levelling progression system based on EXP earned per combat victory, with an associated talent tree. Each skill will have a unique cooldown period depending on individual power level - cooldown to be measured in days (i.e. node travel - see node section)

Skills

- Chain lightning (instantaneous damage to an enemy unit, jumping to 9 additional enemy units within X range)
- Mass slow (slow all enemy units in X radius of spell location for X seconds)
- Poison cloud (enemy units within X radius of spell location take X damage every second for 5 seconds)
- Smoke screen (places a smoke screen of radius X at target location for 10 seconds. Both friendly and enemy units cannot fire into, or out of, the smoke screen while it persists)
- Fire volley (A volley of fire arrows rain down on the target location with a radius of X. All enemy units within range take X damage instantly, and are set on fire, taking X more damage every second for 3 seconds)

- Blessing of Speed (all friendly units on the battlefield gain x2 movement speed and x1.5 attack speed for 10 seconds)
- Curse of Weakness (all enemy units on the battlefield have -5 defence and attack for the next 10 seconds)
- Healing Burst (all friendly units on the battlefield immediately regain X health, and an additional X health every second for the next 5 seconds)
- Resurrection (all dead friendly units are resurrected with 5 health and rejoin the fight for the next 7 seconds or until they die again, whichever comes first)
- Taunting Obelisk (place an ominous obelisk with X health at the target location, causing all enemy units within X radius to attack the obelisk until it, or they, are killed)
- Curse of Fear (all enemy units on the battlefield are struck with fear for the next 7 seconds. During this time they cannot attack and will run around at x1.2 movement speed)
- Curse of Suffering (all enemy units on the battlefield gain x0.5 movement speed and take X damage every second for the next 10 seconds)
- Freeze (an ice nova appears at the target location. All enemy units within X radius are frozen in place for the next 10 seconds. During this time they can still attack units in range)
- Curse of Undeath (Place a curse on the target location causing all enemy units within X radius to become undead. All stats for those units become -10, and will die from decay after 20 seconds, unless killed first in battle)
- Summon Horde (a small band of demons are summoned at the target location to fight for the player until the end of the battle. These units cannot be given orders and cannot benefit from any other skill buffs)
- Howling Winds (cause a gust of wind, originating from the players side of the battlefield, that pushes all enemy units backwards X spaces. Any unit that hits an impassable barrier as a result of this skill will take X damage)

Signature/Heroic Skills

These are intended to be like an ultimate ability for each commander, and cannot be switched out for any other skills. So, in total the player will have 4 skills - 1 signature, and 3 chosen skills. They have no specific cooldown but can only be used once per level.

- Reformation (tactician - all friendly units retreat back and return to formation, healing for X health and gaining X bonus to defence for the rest of the battle)
- Inspire (inspiring leader - all friendly units on the battlefield gain X health, X attack, and X defence until the end of the battle)
- The big guns (engineer - roll in a mechanical monster to blast enemy units with X range until the end of the battle - will need unique stats)
- Berserk/bloodlust (Ruthless leader - all friendly units gain X health, X attack, and X movement speed until the end of the battle)
- Deck of chaos (wild card - a random skill immediately triggers to a random target location or unit. This will affect both friendly and enemy units)

- Bribe (turn X number of enemy units to fight for you for the remainder of the fight - cost gold?)

Orders

orders are universal across all commanders and are focused on tactical movement of units on the battlefield. Players can choose not to use them at all and units will follow their preset AI

- Move (move selected unit type to a target location)
- Hold (order the selected unit type to hold current position)
- Charge (order the selected unit type to charge at the chosen enemy unit(s))
- Defend (order the selected unit type to fall back and defend a chosen location)
- Flank (order the selected unit type to attempt to flank the chosen enemy unit(s). They will attempt to circle around and attack the units from the nearest side)

Surrender Event/Action

- Enemy units - if the enemy unit forces reach 20% while the player still has >50% of their units remaining, the enemy has a 50% chance of attempting to surrender. The player can accept or decline. Accepting will result in gained units for the player, whereas declining will play out the rest of the battle and, if the player wins, they will be rewarded with additional gold
- Player units - if the player unit forces reach 20% while the enemy still has >50% of their units remaining, the player has the option to surrender with 50% chance of being successful. If the surrender fails the rest of the battle will play out as a normal encounter (win or lose). If successful, the player loses the battle but their units will not receive an injury. They will, however, lose some gold.

Events

Aim for 100+ events - player should not see the same event twice in a single run

Event types:

- Player choice with static outcomes (choose XYZ) - either all good or all bad
- Unavoidable trigger - both good and bad - not too punishing
- Reward vs cost - accept X but Y happens, where one is good and one is bad
- Sequence events - mini story series told through events and player choice. Sequential events are available to occur when the previous one in the sequence has happened
- Ally specific events - story driven - affect units and skills - skills can be upgraded?