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# GAME DESIGN DOCUMENT Vision Statement

Before legends is a round based strategy-RPG fusion set in a prehistorical fantasy environment. The player will take charge of a small tribe and lead it in an epic journey on the way of becoming a civilization and thus forge the first legend of his people.

# USPs

NO USPS FOR NOW JUST KEY WORDS

key words:

- round based

- strategy/RPG fusion

- make / be / forge the first legend of your tribe/ people

- total control of your tribe

- do it yourself - crafting, farming, building, hunting, fighting, exploring and improving the individual skills of your people as well as the traits of your tribe

- random generated map, new game = new world to explore

- primal, fantasy setting

- (?) decide on a life style - nomadic vs. settled

- contend against both nature and other tribes

- guide your people to the verge to civilization (and chose wisely your path ... )

# Player Tasks and time spent on them

# Game components

* Strategic Map
* Tactical Map
* Town Management
* Crafting
* Character Management
* Combat
* Resource collection
* Magic/Spiritual aspect
* Quests and peaceful NPC interaction
* Leveling and skill tree
* Strategic Map

Shows the world. The player as well as opponents are placed on the map. Player can move his units per tile on the map. Depending on their behavior, some opponents can also move on the map per tile (AI). The map shows and contains certain resources. Different map areas/tiles have different characteristics regarding: spawned opponent types, movement penalty, resources, the "appearance" of the tactical map on the given strategic map tile. Village/Camp are visible on the strategic map. Players units can commit various activities on the map tile they are placed upon during the players round, such as: rest (recover HP), move (to a adjacent tile), camp (to rest/craft items), hunt (output food, fur; output per round depends on: tile characteristics, unit skills, unit equipment),collect (food, herbs, other resources such as: wood, stone etc. if there are any available)(collecting recourses can be improved by equipping particular items: wood axe for chopping more wood, pickaxe for collecting stone, metals and such; some resources will not be collectable without the needed tool item), {NTH} build (camp, village, outpost, observation tower, mine etc.).

* Tactical Map

Is a different game layer loaded during combat. The characteristics such as appearance of the tactical map are defined by the strategic map tile the combat takes place on. Player and opponents can move on the grid (movement per round depends on , among others, unit speed per round) as well as commit their melee and ranged attacks. Every unit is "active" and proceed with its actions during his turn. Opponents act on behavior patterns (AI). More details under "Combat".

* Town Management
* Crafting
* Character Management
* Combat
* Resource collection
* Magic/Spiritual aspect
* Quests and peaceful NPC interaction
* Leveling and skill tree

# Game plans in modules

Plan A.1

Strategic map:

* Moving on strategic map
* Different terrain types
* Opponents on the strategic map
* Opponent behavior on the strategic map (AI)
* Randomly generated

Combat:

* Opponent units with skills and stats and behavior
* Combat mechanics
* Standard attacks
* Special attacks
* Feedback to player
* Victory incentives (beside experience) = loot

Plan A.2

Tactical Map:

* Separate game lair
* Random generated
* Different terrain types (obstacles)
* Player units and enemy units moving on map
* Combat interaction
* Opponent behavior on the tactical map (AI)

Character Management:

* Level and skills
* Experience generation
* Models and animations
* Inventory and items
* Weapon Mechanics

Plan B

Plan C

# World Map

## Hexagon Principle

The world map consists of hexagons. One hexagon represents an environment area, like swamp or field. Additionally it might contain a special prop like Stones, that can be harvested or give the player some kind of bonus.

The player tokens and enemies are representations and are not in correct proportion of the rest of the world. For instance a wolf that fills a tile is obviously not as large as a the forest he is standing on. The correct proportions will be visible on the tactical map.

It is possible that multiple player tokens or multiple enemies stand on one tile. This will be abstracted and visualized by dots beside the figure. For instance a tribe member with three dots beside its model would mean that there are actually three tribe members. If such a tile is attacked, the player will have three tribe members, which he controls in battle. This works analogous for enemies.

What are the tasks of the player?

The player controls all characters of his tribe. Only one character at a time can have the **chieftain** promotion. If the chieftain dies, the player can chose which of the available characters in the tribe will inherit the chieftain promotion.

# Combat Mechanics

Standard components

AS (Attack skill) “The skill of a unit to successfully attack and injure the enemy”

DS (Defense Skill) “The skill of a unit to protect himself from the attack of the enemy”

D (Damage) “The basic level of injury the unit can cause with his weapon on the health of the enemy unit”

A (Armor) “The physical protection of a unit from the damage inflicted by the enemy in his attack. Armor has a negative correlation with AP.”

HP (Hit points) “The amount of inflicted damage a unit can take before being killed”

AP (Action points) “How many activities can a unit perform within 1 turn during battle. A combination of initiative, Stamina, Skill and motivation. Has correlation to the Speed of the unit. Is required and consumed when committing standard and special attacks.”

S (Speed) “How many map tiles on the tactical map can a unit move during his turn. Cost of move on the APs of the unit.”

Critical Strike

Critical Block

Combat steps and formulas:

MAD (Multiplication on damage (D)) “The success of the attack of a unit in relation to his AS vs the DS of the enemy. Has impact on the D.”  
MAD = (AS / DS)/10  
if AS > DS , then MAD = (+)  
if AS <= DS, then MAD = (-)

DV (Damage Value) “The value of the damage from an attack in relation to the MAD”  
DV = D + (D x MAD)

HPP (Hit points penalty) “The final value which will be subtracted from the HPs of a unit after he is attacked. Defined by the DV in relation to the A.”  
HPP = [DV / (DV + A)] x DV

**\*Action points (AP)**

APs are used only in the combat screen

What are action points? What do they represent?

The APs are representing the will power and initiative of a unit. They are this "energy" that make a human do more than the usual effort in a dramatic situation. In a way the APs represent what will would call "to walk the extra mile".  
This is why in their very essence APs are valuable and limited. The player can use them as a "resource" in combat to either commit a special attack/use special ability, or receive an extra standard **combat move**.

What is a **combat move** *(work definition, lets rename it if we find something more suiting to describe it)*?

In the turn-based time perception of a combat, a combat move represents what a unit can do during its turn. To increase complexity we will split the combat move in 2 phases. Both can be used for one of the following actions:  
- attack (melee)  
- move

The player can use them in any possible combination:

|  |  |
| --- | --- |
| Move | Move |
| Move | Attack (melee) |
| Attack (melee) | Move |
| Attack (melee) | Attack (melee) |

The Result however depends on the order of the actions in this 2 phases: so the action in the 1st phase will resolve with 100% of its potential, while the action in the second phase will resolve with 50% of its potential *(the 50% can be adjusted/rounded upwards, this is just an example placeholder number, the idea is that the first action the player takes in his turn is significantly stronger in output than the second)*. This means that if a unit has speed of 3 and decides to move in both phases of its turn, the total distance it will cover would be 5 ([first phase 100% of 3 = 3]+[second phase 50% of 3 rounded up = 2] = 5 moves in the total turn). Same applies for attack as well as for the combinations of attack and move. **EXCEPTION:** this doesn't apply in the case of move + attack; in this case although attack is in the second phase, both phases resolve with 100% of their potential.

How much will you get if you spend an action point to use a "third" action in one turn?

If the player spends an AP for additional attack or move, he will receive a "third phase" which will then resolve in 100% of its potential, if used for melee attack, or 50%, if used for move.

A unit can spend APs only once per combat round.

The APs of a unit will recover after the combat and can be used again in the next combat.

What about ranged attacks?

Ranged attacks consume both combat moves of a player, thus they cannot be used in combination with moving or changing to melee attack. So if a unit decides to use ranged attack he will only have this one ranged attack in his combat turn. The reason behind this "penalty" of ranged attacks compared to melee is the aim for realistic combat feeling - in real time it will take longer to load, aim and shoot something, compared to hitting something in front of you twice or taking few steps and hitting something once.  
The player can however receive a second shot if he spends an AP. Question: will the second shot resolve with 100%? = TBD (To Be Decided)

What about special attacks/special abilities?

Special attack or a special ability can be used only in the first phase of a combat turn of a unit. So a unit cannot move and then use them, or use standard melee/ranged attack and then use them. However (depending on the special attack/ability) after using them a unit may have a second action (move or melee attack, as normal). This means that all special attacks/abilities should have in their description as a variable if they consume the whole turn of a unit or only the first phase. The AP cost depends on how powerful the special attacks/abilities are.

**\*Combat Screen: who starts? who is second etc.?**

For the combat screen

In Combat each unit acts his turn and then the next unit takes his turn and so on. The attacking party starts first. The order of taking turns for the player party, if multiple units are engaged in the combat, goes top down based on experience. The order of taking turns for the NPC party is determined randomly. In most cases if enemy units are stacked they would be of the same type, thus making no big difference for the game play on who will act first, second, etc. With Humanoid NPC opponents this may be different (about that - check humanoid opponents)

So if 2 tribesman attack 2 wolves, the tribesman will have their turns, before the wolves. The Tribesman with higher Experience will have the first turn. Then the wolves take their turns, who will be first is random.

This order of turns for the combat is determined in the first combat turn and remains as so until the end of the battle.

*(NOTE: we could make it a bit more complicated by adding other variables to this ranking, such as AP or something else)*

*(NOTE: we can also change the order making it complex and requiring a new calculation for each battle to determine the order of units acting)*

**\*Regenerating HPs**

During combat a unit may lose HPs. There are 4 options to recover them:  
- regeneration  
- rest  
- use potion/food/tee etc.   
- use spiritual healing power

*(NOTE: all of the ratings below are open for discussion, testing and balancing)*

Regeneration

A unit has the ability to recover injuries passively without the player intervention. This is however a very slow recovery - 5% from default HPs per round. The positive thing about the auto regeneration is that the unit is not bound to lose turns on the world map but can continue committing all normal actions for the world map.   
This regeneration value can be improved by certain food/tee items in the units inventory or with special perks earned with leveling up.

Rest

The player can click on a "rest" button appearing in the actions of an active unit (= a unit the player has clicked on) on the world map. This button will only appear for units with HPs below 100% and only if the unit is in a camp or in a village, and if the unit has enough food in the inventory. This "rest" action will then consume the whole turn of the unit on the world map, which means that the unit cannot move or commit any other action on the world map and then rest.  
In a camp a unit regenerates with 10% from default HPs per round.   
In a village a unit regenerates with 20% from default HPs per round.

potion/food/tee etc.

If the unit has in his inventory potion/food/tee with the ability to recover HPs, he may use it during his turn on the world map. This does not cost a world map turn, so the unit can continue with other actions on the world map for his turn.

Use spiritual healing power

If the unit has a special healing power, ha may use it to heal himself or another friendly unit on the same tile during his world map turn. This action cost a world map turn.  
*(NOTE: we should discuss how this will be presented to the player in the GUI)*

**\*Food, eating and starving to death**

Food is the most basic and most important resource in the game. Each unit is "responsible" for his/hers food management. The player can easily manage this by making sure each unit has always enough food in their inventory. Every turn the unit consumes a food item with food value of 2 (for example). If a unit ends up with no food items in their inventory, this unit begins to starve. **(GUI)** A notification should be given to the player at the end of a turn if there is a unit left with no food items!

Starvation: a starving unit loses 25% default HPs per turn. So a healthy unit with maximum HPs will die if left for 4 turns without food. An injured unit will starve to death much quicker, depending on how many HPs does he/she have left.

food item & food value (FV)

Various food giving resources will have different food value(FV). They can also be combined and cooked in to more complex food items which then generally have higher food value. And the food value is just a variable to calculate if a unit can live one world map turn. So all food resources or (most) food items have a certain food value. Some food items will also have a minor special bonus effect while being consumed, while others will have only bonus effect, but no food value and will need to be actively consumed by the player from the units inventory.

Examples:  
1 wild berry = 1 FV  
1 potatoes = 2 FV  
1 rabbit = 2 FV  
1 rabbit-potato stew = 5 FV (cost: 1 rabbit, 1 potato; requires: pot)

How does the player decide which food item his unit eats from, if there is more than one food item in the units inventory?  
  
In the GUI(inventory)?

In the beginning of the game each unit has a one food default food item in the inventory. On the icon of this food item there is a small "mini" icon showing that this item is currently "eaten". By click the player can move the mini eat icon to another food item (or food resource) in the inventory if such is available.

# X:\Documents Toma\BEFORE LEGENDS\game loop\Food Inventory01.png X:\Documents Toma\BEFORE LEGENDS\game loop\Food Inventory02.png

# Weapons Mechanics

**Main weapon categories**

1. Pierce

(such as: arrows, daggers, spears, swords\*)

Specialty: increase chances of Critical Strike significantly

2. Slash

(such as: axes, scimitars, swords\*)

Specialty: increase AS

3. Blunt

(such as: clubs, hammers, maces)

Specialty: can cause dazed effect to the opponent

**Main armor categories**

1. Body Armor

(all items equipped on the body)

Specialty: Increase A, but have penalty on AP

2. Head Armor

(all items equipped on the head)

Specialty: Increase A, but have penalty on AS/DS

3. Shield

(all shields)

Specialty: Increase DS (major) and A (minor), but have penalty on AS

**Other item types**

Items not fitting in the 2 main categories,

(such as: bows, tattoos, talismans, jewelry etc.)

\*about ranged attacks

Ranged attacks function in the same principal as melee attacks and have the same damage calculation formula, however they require additional weapon and skill variable - that is range.

**Range** of a weapon determents the amount of tiles between the skirmisher and the target in which the skirmishers attack will deliver 100% HPP. Each additional tile beyond the range between the skirmisher and the target will have 25% HPP penalty. This is called **ranged penalty**. After a certain distance this penalty is 100% - the target is out of range and no shot can be performed.

This ranged penalty will be shown as UI feedback to the player during battle and will vary between ranged weapon types significantly. With skill perks in ranged combat the player will have the chance to significantly influence the ranged penalty of a unit, thus improving massively the ranged performance of this unit. Experienced units in ranged combat will be much more efficient then others, not skilled in this area and the player will notice this in the game play.

\* Use of weapons

Weapons can be used either in one hand or in both hands. Some, such as most spears (short), can be used in both as well as in one. Using them with both hands will give AS bonus. If a weapon can be used in both hands and there is no item in the second hand, the both hands mechanic applies automatically.

Generally using additional weapon or shield on the second hand, will give AS penalty.

# Gameplay Summary

# Visual Style

Setting und Grafischer Stil

Attraktivität des Hauptcharakters und dessen Animationen

Attraktivität der Spielumgebung

Visueller Abwechsungsreichtum

Geplante Effekte

Skizzen einfügen (es eignen sich auch Beispielbilder)

Sind Inszenierungen geplant?

Wie wird der Spieler durch Grafik und Effekte belohnt?

# Setting and Story

Was ist der Hintergrund von Spielwelt und Story?

Welchen Umfang hat die Spielwelt?

Was passiert in der Welt?

Wie entwickelt sich die Welt bzw. die Story weiter?

Welche Bedeutung hat der Spieler in der Welt?

# Core Features

Welche Features machen das Spiel aus? Womit steht und fällt das Spiel?

Reward-Systeme

Kernfeatures sauber von Nice-To-Have trennen

Kernfeatures genau durchleuchten, damit die Risiken deutlich werden

Kernfeatures immer mit Spezialisten besprechen

# Additional Features

(Nice-To-Have-) Features erhöhen die Atmosphäre, sind zur Not aber streichbar

Mit Hilfe dieser Features lässt sich das Projekt skalieren

Diese Features sind von den Kernfeatures abhängig, von ihnen darf aber nichts abhängen

# User Interface

Schematische Übersicht der wichtigsten Interface-Elemente (HUD).

Beschreibung der Tasten- bzw. Controllerbelegung.

Wie wird die Kamera gesteuert? Gibt es Besonderheiten?

Kurze Auflistung der wichtigsten Screens (Umfang).

Gibt es eine besondere Philosophie hinter dem Interface?

Interaktion mit Spielwelt, Objekten und NPC’s.

Wird Physik gameplay-relevant eingesetzt?

# Game Structure

Wie findet der Spieler Einstieg ins Spiel?

Lernkurve

Welche Tutorials und Spielhilfen sind geplant?

Wie hoch ist der Wiederspielwert?

Sind Add Ons oder zusätzlicher Content geplant? (DLC)

Wann kann man speichern? Manuell? Autosave?

# Game Modes

Auflisten aller Spielmodi

Unterscheiden nach Singleplayer und Multiplayer

Dazu gehören auch: Tutorial, Arenen, Minigames…

Wie kann man sich den Umfang der einzelnen Modi vorstellen (z.B. Anzahl der Level, Größe der Spielwelt etc.)

# Target group and platform(s)

Welche Zielgruppe soll erreicht werden? (Hardcore, Mid-Core, Casual)

Auf welchen Platformen soll der Titel erscheinen?

Welche Platform ist Lead Platform? Welche nur ein Port?

Welches Age-Rating wird anvisiert?

# Critical Points

Was wird aktuell als die kritischsten Punkte angesehen?

Hier vor allem die Kernelemente und die USPs durchleuchten.

Wie werden die Risiken angegangen?

Was wird unternommen, um das Risiko nach Beginn der Entwicklung zu senken?

# Team size and structure

Mit welchem Team soll das Projekt umgesetzt werden?

Wie ist die Teamstruktur (Führung – Teamleiter – Mitarbeiter)?

Wer übernimmt welche Aufgabe?

Werden noch weitere Mitarbeiter benötigt/gesucht? Wann?

Welche Erfahrungen haben die einzelnen Mitarbeiter?

Tipp

Jeder wichtige Bereich muss mit mind. 2 Mitarbeitern besetzt sein.

 Aufwand

# Tools and Middleware

Engine

Tools für Interface oder Netzwerk

Besondere Methoden für das Balancing

KI-Tools

Physik

Musik und Sound

Weitere Tools, die die Arbeit erleichtern und das Risiko senken können?

Wichtig

Das Verwenden von Tools hat eine große Bedeutung für die Planung.

# Development Timeframe

Welcher Zeitrahmen ist ungefähr geplant?

Aufwand der einzelnen Bereiche abschätzen.

Wichtige Milestones inhaltlich und zeitlich festlegen.

Hilfreich

Wie kann man die Planung so gestalten, dass man wichtige Ziele des Spiels möglichst schnell erproben kann, z.B.

Gameplay-Dummy

Visuelles Ziel

Besondere KI

# International Marketing

Soll das Spiel auch international vermarktet werden?

Lokalisierungsbestandsteile frühzeitig erkennen und anpassbar machen während dem Design Prozess

UNICODE benutzen anstatt ASCII

Mehr Platz bei Interface Elementen einplanen

Dynamische Textboxen anstatt statische (soweit möglich und Platz vorhanden ist)

Assets leicht austauschbar und/oder veränderbar machen