**Combat Mechanics[[1]](#footnote-1)**

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.

**\*Bows and Arrows**

These are the most sophisticated ranged weapons in the game. They are crafted and used separately.

The Bow includes a minor AS bonus as well as the range. Some advanced bows may give a small D bonus.

The Arrows include the D as well as critical bonus, because they fall in the Pierce Weapons category. Arrows are always crafted in quantity of **5**. *(same applies for slingshots)*

**\*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 tribesmen 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 of 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 unit’s 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 tribal camp a unit regenerates with 15% 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.

***NOTE****: for the “should have” stage in regards of the use of potions/food – all such items are used passive (as described under \*Food, eating and starving to death).  
Active use of food item would be clicking on it in the inventory of the unit to consume it. The effect applies immediately. This action costs no turns. This active use of food items should be in place for items with general bonus effect, such items don’t have food value – so tee/potion items which deliver certain bonus when consumed. TBD if this is to be applied as should or nice to have(?)*

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)*

1. Moved to 3\_The Tactical Map´s Gameplay [↑](#footnote-ref-1)