## Assumptions

- If the player is on the exit, it will not appear in the goal string, but will return when the player leaves the exit
- If an enemy is meant to move away from the player but there is no square it can go to except a square closer to the player, the enemy will not move
- Assumed that there will be no infinite portal chains
- When there is no path to the player, the mercenary will move in the direction of the player until it is blocked, then it will stand still
- All items used in battle will be deteriorated
- When the player is dead, the inventory output will be empty
- Assumed player health always > 0
- Boulders can be pushed on top of exits, and through open does, but not locked doors
- If the player tick does not move, allies will still try and get as close to the player as possible, but will not move into the players square
- Allies do not take damage during battle
- Assumed each goal can only appear once in a complex goal
- Assumed durability always > 0
- Enemies can move over collectibles with no effect
- If there are multiple exits in a dungeon, the player only has to find one for it to finish the goal
- Assumed that when entering a portal with the intended square at the end portal blocked, the player will instead try to teleport to other adjacent squares next to the end portal. If all adjacent squares next to the end portal are blocked off, the player will not teleport at all.
- Assumed that when using multiple swords, they are used one at a time, and the effect does not stack
- Assumed that the precedence for buildable entities is bow, shield
- Assumed that when multiple mercenaries are bribed by the player, they all follow the player in the same square
- Assumed that spiders can spawn anywhere except on boulders, and if multiple spiders can spawn on top of each other
- Assumed that boulders can be moved on top of collectibles with no effect.
- Assumed that entities will not be created on top of other entities
- Assumed that mercenaries ignore portals when calculating their path to the player, and that they will do this under the effects of all potions
- Assumed that mercenaries just move in the direction that will take them to the player the fastest, and therefore can sometimes be blocked off.

- Assumed that zombies are blocked by portals
- Assumed that boulders can be pushed on top of enemies with no effect
- Assumed that boulders are blocked from being pushed on top of portals
- Assumed mercenaries can be teleported through portals
- Assumed all fields in config files are integers
- Assumed there will only ever be one player entity in all config files
- Assumed that allies will continue to travel in the direction to the position of the player, even if the player has travelled through a portal
- Assumed that all keys in the dungeon will have a corresponding door
- Assumed that allies will move randomly when player is invisible
- Assumed that using a weapon on a zombie toast spawner does not impact its durability
- Assumed that if portals are chained and there is a blockage at the end of the portal chain, the player will test adjacent squares next to the next portal up in the chain
- Assumed that all moving entities and the player can traverse through a zombie spawner
- Assumed that zombies and mercenaries cannot push boulders
- Assumed that any weapon (swords and bows) can destroy zombie spawners
- Assumed that bribing a mercenary does not count as defeating an enemy
- If the player cannot travel through a portal they will stay on the square they were originally on before they tried to move into the portal
- Zombies cannot spawn on top of other zombies
- If a zombie or spider spawns on the player, no battle happens
- If a random movement direction is picked for the zombies (or mercenary while player is invisible), and the direction is blocked, the zombie does not move
- A player will battle any entity it lands on after teleporting through a portal
- A player will push any boulders that are not blocked if it where to land in that square after teleporting through a portal