**Overview**

mForest is a survival/adventure game with RPG elements. The player is presented with a first-person view and interacts with the environment using the keyboard and mouse.

The primary focus should be on creating a living, breathing forest for the player to explore. Ultimately, the forest should look and feel as realistic as possible. During early development, it will be beneficial to take advantage of readily available assets from the Unity Asset Store for prototyping purposes. Eventually, though, we would like to have create our own or have them created.

**Player Abilities**

* Walk
* Run (limited by stamina/fatigue/carry weight)
* Look 360 degrees
* Crouch
* Jump
* Swim
* Attack (Melee and ranged)
* Pick up objects
* Hide

**Environment**

* Realistic forest with day/night cycle
* Appropriate wildlife
* Water features
  + Rivers, streams, lakes
* Mountains and hills
* Harvestable plants (leaves, stems, berries, roots, etc.)

**Gameplay Mechanics**

* Realistic interactions between player and wildlife
* Survival stats
  + Hunger, hydration level, fatigue, tiredness, wetness of clothing, body temperature
* RPG stats
  + Strength, Intelligence, Constitution, Intelligence, Wisdom, Charisma
* Auxiliary stats
  + Hygiene, bodily damage/injured parts
* Realistically destructible environment
  + Player can chop down trees with appropriate tools—however, it is difficult and dangerous to chop large trees.
  + Stone structures (outcroppings, cave walls, etc.) are destructible/diggable with appropriate tools.
  + Player can dig in dirt and leave holes.
  + Most of this will probably need to be implemented through mesh deformations.
* Hunting, trapping, and fishing
* Player will take falling damage relative to distance fallen/jumped
* Weather effects
  + Rain
  + Fog/mist
  + Clouds blocking the sun
  + Snow

**Assets Needed**

This is just a broad overview. Specifics will be detailed in other documents.

* Models
  + World terrain
  + Stones/boulders
  + Trees (conifers and deciduous)
  + Wildlife
  + Player (arms, legs, etc.)
  + Foliage
  + Craftable items
* Sounds
  + Wildlife
  + Wind
  + Fire
  + Water (lake, river, etc.)
  + Character sounds (breathing, etc.)
  + Footsteps for different terrain types
  + Insects
  + Music?
* Particles
  + Fire
  + Water
  + Insects
  + Wind blowing leaves/debris
  + Rain

**Tentative Team Roles**

* Texture artist
* 3D artist
* Particle/shader programmer
* Level designer
* AI programmer
* Animation programmer
* Physics programmer
* Audio designer/programmer