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8/15/18

CS 162

Final Project Notes

My idea for the final project is a game that cribs from Oregon Trail in it's general gameplay, but whose theme is stone age humans migrating south for the winter/or because of an oncoming Ice Age.

To this end, each of the derived classes of the Space base class are types of environment: grassland, desert, forest, mountains, and river.

Each time the player moves into a new space, the program will generate the following in a pseudorandom fashion: the four spaces adjacent to the space the player is currently in, animals to hunt or to fight off (if any), plants to gather, and other items to gather for use as tools like stones and timber.

Players will be able to move twice per day (round) max, and at the beginning of each day there will be a message that reflects that the climate is getting colder (at this point it seems natural to make each round equal to a day, but I might change that, it doesn't change any part of the actual gameplay, it would be a textural thing, maybe each round could be a week or a month?)

The end of each round is marked by a declaration that it is evening, which has a couple of possible random encounters – attacked by another tribe, or attacked by a predator, and after that a chance for healing (the mechanism for this can be similar to how it is in DnD, generating a random number between 1 and 6 to boost health)

This brings up the issue of health. Health for the clan, like in Oregon Trail, is determined by stamina (more is good, less is bad) and hunger (more is bad, less is good). Stamina is affected by the climate index (as it gets colder, stamina goes down faster), the rate of movement (lets say each time they move twice they lose a point of stamina, so if they move twice over several days they'll start to get low on stamina), they could also lose stamina from hunting. Hunger is affected by the climate index (as it gets colder, hunger goes up faster), the amount of food they have.

I originally wanted each new Space object to maybe not produce Plant, Animal, or Material objects, but working through the gameplay, it complicates everything if sometimes I have to account for nothing being there. The same thing applies to the idea of having different numbers of these different classes in the Space object. To keep it simple, I'm going to just have every new Space object instantiate one each of the Animal, Plant, and Material objects. Although, I could write a sort of "dead" subclass for each one of those classes that effectively acts as the same thing as not having them appear. For example, I could have an Animal subclass called AnimalBones and it could have a description for picked over carcasses, or a Plant subclass call Wilted and it could have a description of dried fields or bushes of plants.