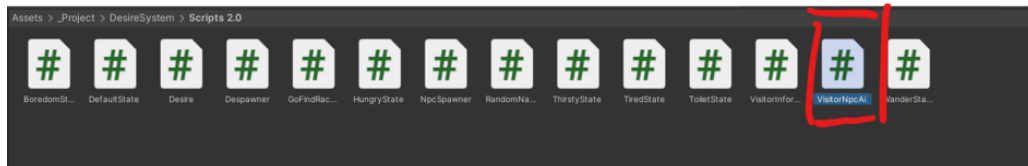


Npc guide for balancing

Npc ai script location:

assets→_project→DesireSystem→Scripts2.0→VisitorNpcAi



Desires and Values

desires are created with 2 values

1. a random values signifying the starting value of the desire i.e. “0.2 hunger”, “0.15 thirst”
2. the rate at which the desire changes, imagine for example(not real), 2f causes the desire to increase at 0.2 per second.

```
//Desire To Race (Will)
RaceDes = new Desire("Race", Random.Range(0f,1f),1f);

//initialises desires with an instance of the class
//constructs them with a names, random value for the desire initially
//and finally the rate at which the desire increases
HungerDes = new Desire("Hunger", Random.Range(0f, 0.3f),2f);//2
BoredomDes = new Desire("Boredom", Random.Range(0f, 0.3f),3f);//3
ThirstDes = new Desire("Thirst", Random.Range(0f, 0.3f), 1.5f);//1.5
ToiletDes = new Desire("Toilet", Random.Range(0f, 0.3f), 1f);//1
```

Wander and tiredness

while the wander and tired desires are structurally the same they act slightly differently to the others

- wander
 - wander shouldn't increase at all so don't change the second value in the constructor
 - wander acts as a threshold to stop the npc constantly fulfilling desires
 - they will wander if no other desires are above the threshold (the assigned value, currently 0.4f)
 - increasing this will reduce the amount of time before an npc decides it want to act on a desire
- Tired
 - tired should always construct at 0f

- tired represents a visitors “lifetime” in the game, once tired = 1 the visitor will leave the park
- only change the rate of change (second val currently 0.6f) to change how long visitors stay in the park

```
//wander desires value is static and functions as the lower threshold a desire needs to reach in order to be made a priority
WanderDes = new Desire("Wander", 0.4f, 0f);
//tired is a bit different as we dont want npcs to begin really tired
//it essentially defines how long a npc will run for so we want it to change less than the others
TiredDes = new Desire("Tiredness", 0.0f, 0.6f);
```

Satisfaction

satisfaction is both individual to each npc as well as representative of them as a collective
for individual npcs:

```
2 references
public void updateSatisfaction()
{
    if (currentDesire.value < 0.9f)
    {
        satisfaction += 0.1f;
    }
    else if (currentDesire.value > 0.9f)
    {
        satisfaction -= 0.1f;
    }
}
```

- the first if statement:
 - this means the if the desire is below 0.9 when it completes an action, the npc will gain satisfaction
 - 0.9 is the threshold for positive interaction - can be changed
 - 0.1 is the amount the satisfaction changes each interaction - recommended don't change unless it really needs it - wouldn't increase at all
- the second statement
 - reverse of the first - values represent the same things

instruction for overall satisfaction will be in the spawner guide when i make it.