Dev Notes 11/21/2020

How to deal with jobs?

We want to be able to create jobs for the agents that they can figure out how to do with GOAP.

We want to define any job goal and reward. E.g. Bring 3 metal to this container to receive 20 gold.

Each job can be structured as an action with:

* Preconditions: what the agents need to do
* Effects: the payout for the agent
* A ‘listener’ that can mark the job as complete
* A timer on the listener, to make sure jobs don’t get stuck if an agent can’t do them

Preconditions and effects are easy, but how to make the listener?

We could make jobs tied to a single object, e.g. bring 3 metal to this container, then each job need only listen to one WorldObject. But we’d like the flexibility to make jobs with several goals instead of making many smaller ones. Then the listener needs to keep track of what’s happening with multiple objects. If other agents are also working on those objects then it may become even harder to track them.

A better approach may be as follows:

1. The player creates a job.
2. A job can only be accepted by an agent if it discovers a correct GOAP solution.
3. The sequence of GOAP actions by the agent that completes the job is registered to the job object.
4. As the agent completes each action, a success signal is sent to the job.
5. If any action fails, we can fail the job
6. If all actions succeed, the job pays out.