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CSCI 3081

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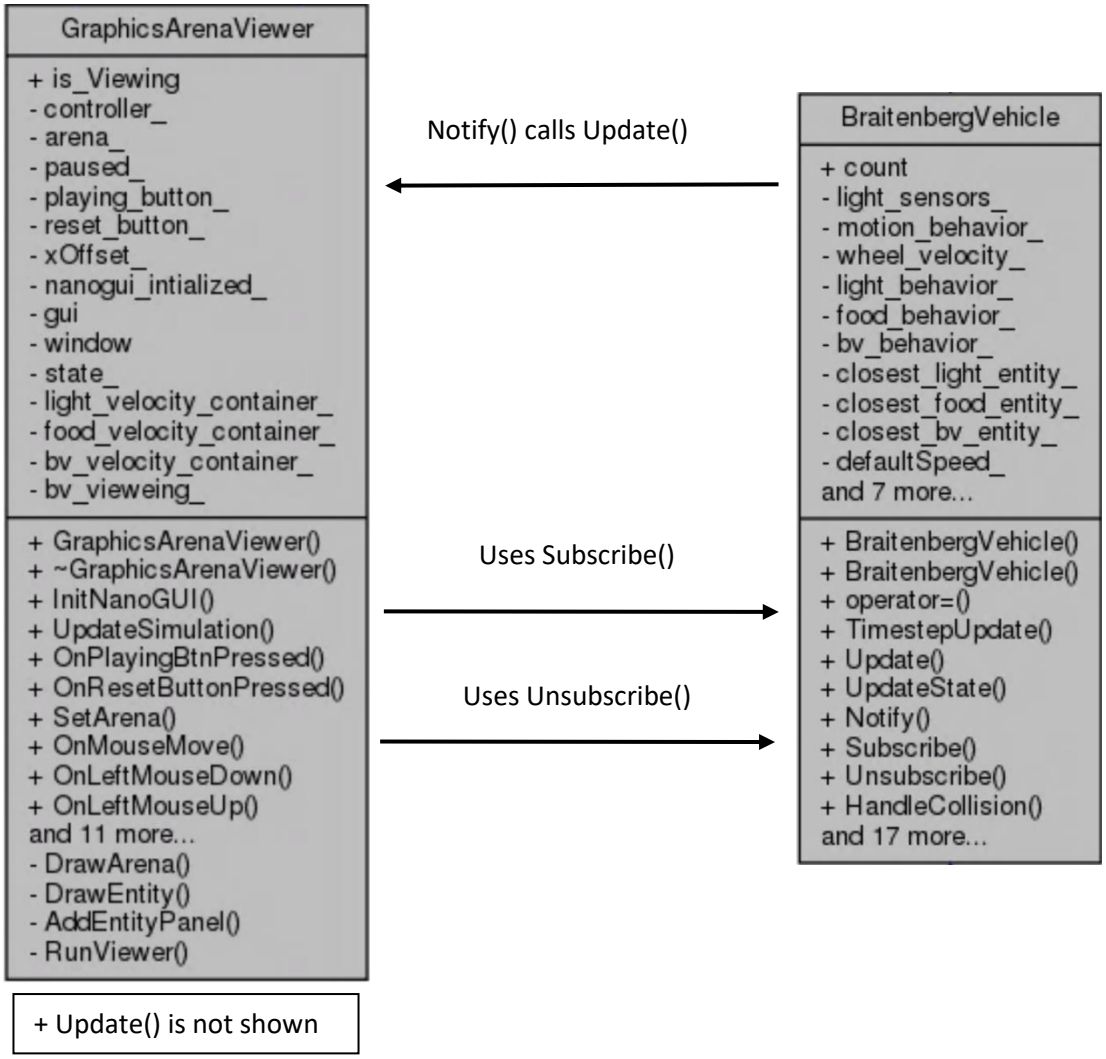
Iteration 2 Preliminary 2

Doxy Generated UML for Observer Pattern

My implementation of the Observer pattern involved adding necessary methods and elements to the BraiternbergVehicle and GraphicsArenaViewer classes in order to make them a Subject and Observer respectively.



Coode Snippet of GraphicArenaViewer's Update Method

```
void GraphicsArenaViewer::Update(const State& state){
  //setting GAV's state variable
  state_.light_l = state.light_l;
  state_.light_r = state.light_r;
  state_.food_l = state.food_l;
  state_.food_r = state.food_r;
  state_.bv_l = state.bv_l;
  state_.bv_r = state.bv_r;

  //Converting state values
  std::stringstream ll;
  ll << std::setprecision(2) << state_.light_l;
  std::stringstream lr;
  lr << std::setprecision(2) << state_.light_r;
  std::stringstream fl;
  fl << std::setprecision(2) << state_.food_l;
  std::stringstream fr;
  fr << std::setprecision(2) << state_.food_r;
  std::stringstream bl;
  bl << std::setprecision(2) << state_.bv_l;
  std::stringstream br;
  br << std::setprecision(2) << state_.bv_r;

  //setting values displayed on GUI
  light_velocity_container_[0]->setValue(std::string (ll.str()));
  light_velocity_container_[1]->setValue(std::string (lr.str()));
  food_velocity_container_[0]->setValue(std::string (fl.str()));
  food_velocity_container_[1]->setValue(std::string (fr.str()));
  bv_velocity_container_[0]->setValue(std::string (bl.str()));
  bv_velocity_container_[1]->setValue(std::string (br.str()));
}
```

Coode Snippet of BraitenbergVehicle's Notify Method

```
void BraitenbergVehicle::Notify(){
  for (auto obs : observers_) {
    obs->Update(state_);
  }
}
```

Doxy Generated UML for Predator Class