

P3 Intro

Planet Wars

The Game

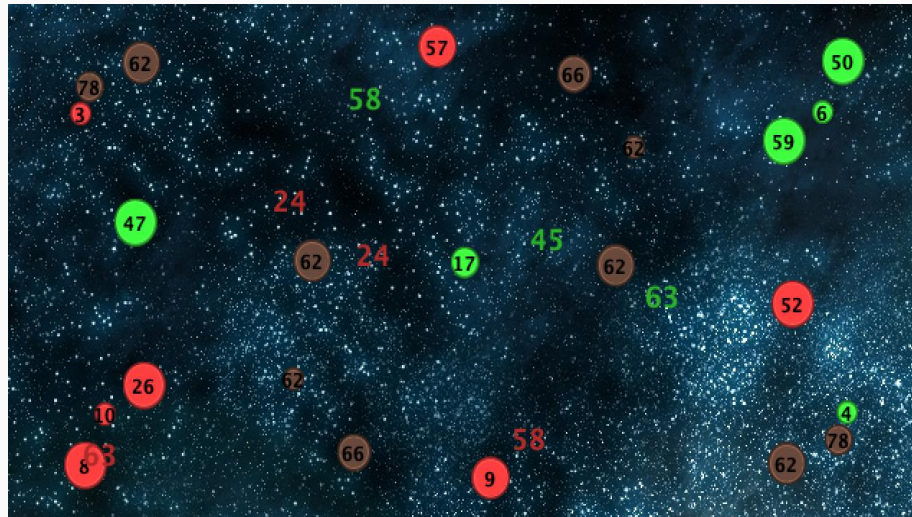
- Based off *Galcon*

Rules

- Enemy ships cancel each other out when they battle
- Conquered planets produce ships each turn
 - The more ships there, the faster they are produced
- The numbers on the planet indicate how many ships it will take to conquer it

Planet Wars

- How to win
 - Destroy all enemy ships or conquer all the planets



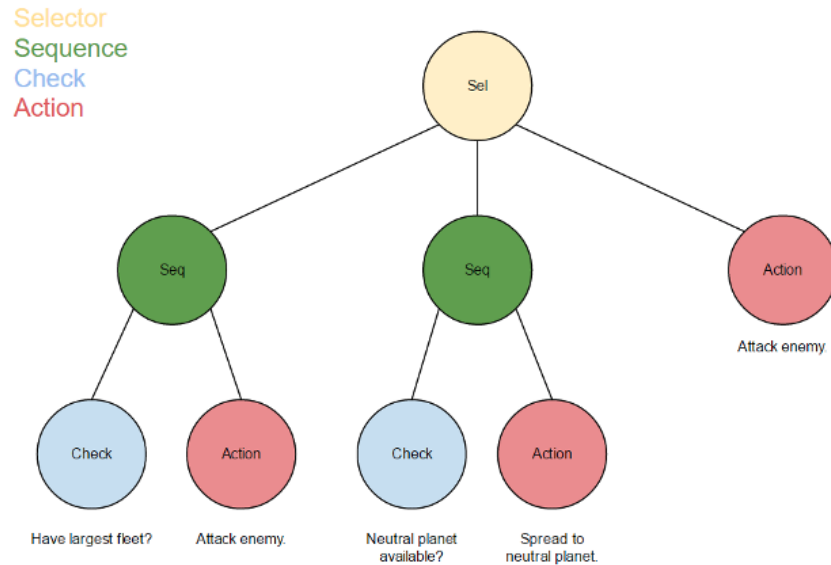
P3 Goal

- Design a reactive bot with a single behavior tree.
- Win against each unique test bot and your classmates.

Getting Started

- May have to install Java JDK:
 - <https://www.oracle.com/java/technologies/javase-jdk15-downloads.html>
- Before trying to build your bot, watch the test bots play out.
 - Understand strategies
 - How can you beat these bots?
- Look over `bt_bot.py`
 - A basic behavior tree is already provided. You can improve on this or build a new one.
 - Look at how the tree is assembled
- Look at other bot's code to see how the functions in `planet_wars.py` can be used

Provided Behavior Tree



Code

- Your tree will be assembled in `bt_bot.py`
- Check functions will be defined and implemented in `checks.py`
- Action functions will be defined and implemented in `behaviors.py`
- `planet_wars.py`
 - Contains classes for planets, fleets, and the game state `PlanetWars`.
 - Contains the functions `issue_order` and `finish_turn`
 - `PlanetWars` contains all the game's relevant information and methods for accessing this information

Canvas Link

- <https://canvas.ucsc.edu/courses/46859/assignments/280059>