Status Report

[2014-09-08]

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Research lab – Summer term 2014

University Koblenz-Landau

Overview

- JavaMap + Jason/AgentSpeak merge

- Zone Building

- Improve Agent Strategies

- Improve Actions (repair, inspect, attack, etc.)

- fix bugs :-)

Zone Building

Zone Building(Start Phase)

1. agents register for zoning (zoner)

2. ask for best zone from one-hop neighborhood

Not Enough Zoners?

A. Agents go for best Value Islands (t.b.d.)

B. Agents go for best Value Vertices

Zone Building(Start Phase)

1. agents register for zoning (zoner)

2. ask for best zone from one-hop neighborhood

Enough Zoners?

  A. communicate every zone to every zoner

  B. best zone is picked

  C. use closest zoners to build best zone

  D. all participants of the zone are removed from available zoners

Zone Building(continued)

- On every nth step trigger a rebuild of zone (global or local)

- extend search radius (neighborhood) with each step by one

- build new better zone or stay at current zone

Strategies

Explorer Strategies

- Exploring

  - probe in clusters (avoid enemy saboteurs)

    - closest vertex with most already probed neighbors

  - survey (avoid enemy saboteurs)

- Zone Mode

  - build zones

Inspector Strategies

- Exploring

  - inspect enemies (until all 28 are inspected)

  - survey (avoid enemy saboteurs)

- Zone Mode

  - build zones

Saboteur Strategies

- Exploring

  - attack closest enemy

  - survey

- Zone Mode

  - attack enemies close to / in our zones

  - attack closest enemy

  - occupy high vertex values

  - extend a zone

Repairer Strategies

- Exploring

  - survey (avoid enemy saboteurs)

  - repair disabled agents

- Zone Mode

  - build zones

  - repair disabled agents

  - parry if enemy attacks (don't leave position)

Sentinel Strategies

- Exploring
    - survey (avoid enemy saboteurs)
- Zone Mode
    - build zones

other things...

Improvements

- Agent & Enemy Positions are saved and taken into account when calculating paths, best zones, etc.

- Agents can reserve vertices for probing and surveying

- If an agent has nothing to do, switch to zone mode

Schedule/Timeplan

- 2014-09-08: qualification (TODAY 2 P.M.)

- maybe next week: tournament

- until mid/end of october: finishing documentation

Todo

- pass todays qualification

- enjoy the competition

- write the documentation