**Phase 1**

**Resource Gathering**

Status: In Progress

Description: gather minerals and gas

Notes: semi-advanced mineral gathering complete, but BaseManager needs to be refactored to fit the unit agent model

**Build Order Execution**

Status: In Progress

Description: be able to execute pre-defined build order

Requires: management of production choices, building placement, building timing (latter two can be more fleshed out after basic version of build order using only the first part is complete)

Parts: 9Pool – partial?

3-Hatch?

**Basic Combat**

Status:

Description: group, move, and attack units (you need to put an advancement cap on this if you don’t want to over-do this)

**Scouting**

Status:

Description: search all around the enemy base to check what they’re doing, search other non-starting location bases

Phases: 1. Hack scouting – go attack start locations – complete

2. Basic scouting – targeted scouting, set aside units whose purpose is to scout

3. Advanced scouting – scout moves around enemy base with minimal death risk to discover entire base (spy?!)

**Later**:

**Potential Fields**

Reference Links: <http://satirist.org/ai/starcraft/blog/archives/65-pathing-5-potential-fields.html>,

<http://www.diva-portal.org/smash/get/diva2:834692/FULLTEXT01.pdf>

<https://brage.bibsys.no/xmlui/bitstream/handle/11250/252993/566284_FULLTEXT01.pdf?sequence=3&isAllowed=y>

Status:

Being Worked On By:

Requires/Issues:

Next Step:

Description: create a field of reducing intensity pulsating out from units; change values of fields based on desired behavior (positive to draw closer, negative to stay away, different values to keep them at range, etc.)

Notes:

Build Plan/Ideas:

**Remember Position of Enemy Units**

Status: complete?

Description: hold values of last known position of enemy units

Class Info: UnitInfo

Notes: need to write methods to retrieve info (what param, etc)

**Damage Fields around Enemy Attack Units and Static Defense Units**

Status:

Description: (did you mean… enemy attack range??? Like if you step in here you can get hit?)

**Advanced Pathing around Damage/Potential Fields**

Status:

Description:

**Enemy Recon**

Status:

Description: enemy reconnaissance

Parts: state of enemy economy

Technology

Army size (partially complete)

Upgrades (?)

Position of enemy units (partially complete)

Composition and stuff (?)

Notes: army size partially complete; the part concerning a list of known enemy units exists – to complete this part, need to do proper scouting

**Advanced Building Location**

Status:

Description: algorithm to choose build locations

**Unoccupied Potential Base Analysis**

Status:

Description: analyze the bases both we and the enemy can expand to; where is the natural, possible defensive (edge, far away from enemy), offensive (expand towards enemy), and secret base (bases we hope the enemy won’t find) locations

**Advanced Scouting – Vision Fields/Lines**

Status:

Description: encircle the enemy base or watch exits to learn enemy movements

**Advanced Scouting – Stalking** (?)

Status:

Description: use vision to predict where enemy units are going or what they’re doing

**Advanced Strategizing**

Status:

Description: making use of known enemy information to predict enemy strategy and react accordingly (build order, etc.)

**Advanced Combat Strategizing**

Status:

Description: making use of known enemy information to make combat decisions

**Micro Managing – Agent**

Status:

Description: unit decision making intelligence;

**Advanced Micro Managing - Agent**

Status:

Description: make use of information to make smarter action decisions

<https://skatgame.net/mburo/ps/aiide12ws-search.pdf>

**Reminder Module/Action Tracker**

Status:

Description: