**AI Task Assignment Example Outline**

**Summary:**

High level strategic AI monitors game state and decides current goals. Assigns tasks for goals to top level units. Commands are either handled local to the unit or handed down to the next level of subordinate units based on ability, feasibility, availability.

Recursively

1. Can and should this unit accomplish this task?

* Is this task assignable to this level unit?
* Does this unit have the available resources/resource types for this task?

*Task associations will need to be made for unit (resource) types. E.g., “bring supplies to the front lines” would require a support unit; “bomb area XXXX” would require a heavy attack squadron; etc…*

1. Pass on commands for tasks not handled to subordinate units.
2. Aggregate and pass back report of tasks not handled to top level.

**High Level Strategic AI**

* Determines high level tasks for units to be accomplished based on game state
* Determines what units (in the aggregate) are most suitable for which tasks
* Determines new production of resources
* Re-assigns orphaned units (this may be on a modified basis such as proximity) or creates new HQs
* Issues commands for tasks to top level units
* Handle management of tasks not assigned (re-assessment and re-assignment?)

**Assignable Tasks**

Each level of unit will have allowable tasks that can be assigned by unit levels directly above (parent units). These tasks will be assigned ONLY by the units at the parent level (Chain of Command). If the task is assignable to a particular unit, then a feasibility check is done, otherwise a command is issued for the task to subordinate units below.

If the task is feasible at this level, then a check of available resources for the task will be assessed. If resources are available, the current unit accepts the assignment (although possibly through a dissension filter based on state variables for the faction – at which point the unit might reject the order and suffer some consequence). Otherwise, a command is issued for the task to subordinate units below.

If the assignment is accepted, the unit attempts to carry the task out. The tactical decisions for the task are made at this level.

Units should be responsible for reporting unassigned tasks back up the chain to the top level AI.

**Battalion lvl 3 [HQ]**

* Move to location
* Assign new resources to company (reinforcements)
* Reassign company
* Re-organize units
* Supply units

**Company lvl 2**

* Move to location
* Assign new resources to squad
* Attack location
* Defend location
* Reassign squad
* Advance
* Retreat

**Squad lvl 1**

* Move to location
* Attack location
* Defend location
* Patrol area
* Infiltrate location