Maze Wars Design Documentation

# Class Diagram 2.jpgUML Diagram

# Polymorphism Discussion

Maze Wars will implement the following design patterns: Iterator, and Observer. Beginning with Iterator, the Iterator<T> interface is the Iterator participant and the Iterable<T> interface is the Aggregate participant. The GameFigureIterator is the concrete Iterator, while the GameData class is the concrete iteration of the Aggregate participant.

To implement the Observer design pattern, the FieldObserver interface is the Observer participant, and the FieldObserverSubject is the Subject participant. The following classes are the concrete Observers: Main, and GameResources. The concrete implementation of the Subject is the GameData class.

The concrete implementation of the interfaces used the these design patterns is one example of how polymorphism is used. Another is the case of the AITank units that oppose the player in the game. The AITank is a child of the players Tank object. The AITank overrides the Update and GetNextCorner, also another example of polymorphism.