

TupleSpace Design

Simple Tuple Space

The simple tuple space implementation uses ArrayLists to store the tuple data. Each tuple is stored as an ArrayList and The TupleSpace is an ArrayList of Tuples. The add, remove, and read methods are using relatively simple for loops to loop through the TupleSpace linearly and compare tuple objects one at a time. It is around $O(N^2)$ efficiency and this starts to break down after ~50,000 tuples are in the TupleSpace.

Efficient Tuple Space

The efficient tuple space is using a Hashmap and Treesets. Work in progress.