

Analysis

**What do you see as the advantages/disadvantages of your task scheduler?
How might you change the infrastructure to improve your parallel efficiency?**

A disadvantage is that it adds the closures together in the space. This makes the space a bottle neck for parallelism and speed. It goes through through a list that contains all waiting closures, then finds the ones that are ready to be merged, then goes through again to find it's parents. This is a very slow procedure and we found that if we lowered the bottom case threshold time started to increase rapidly. An improvement here would be to use a hash map, and maybe a smarter search algorithm. However we found that if we use a bottom case not to far away from the initial case the effect was not that big. If we would have more than 100 computers to our disposal, or a bigger TSP problem we would have to improve the space.

What issues are involved in generalising your infrastructure to a network of Spaces?

An issue would be how to divide tasks. When would it be beneficial to send it to a new space considered the time it takes to send/receive vs the computational power added. Also we would have to change our interface to have a master space that get's the initial task and sends it to other spaces.