

# Littlefield Technologies Game



## Semester 4 SCM

Orientation Challenge

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# Introduction

The assignment on which this document presents a summary of the actions taken in the simulation. We the operation teams has to manage the factories' scheduling, purchasing, lot sizing and contracts with clients to maximize the revenue of the factory over its lifetime. We have to control the factory for a week afterwards we will lose control and the factory will run with the last given configurations. In the following section will be a summary of the decision and actions taken during factory operation.

## Summary

When the game started, we had made quick changes in the contract without thinking of the consequences as we were excited to pry with the configuration of the factory. We chose contract 2 without checking if there are enough lead time to generate revenue. After 20 in-game days we noticed that we are losing money and we saw that we weren't earning revenue. We tried to check where the problem started and making changes to the lot size, contract, reorder point and reorder quantity. In figure 1, we messed with the materials buffer and the consequences is that we are not getting enough materials to satisfy the contract requirements and that lead us to revenue lost.

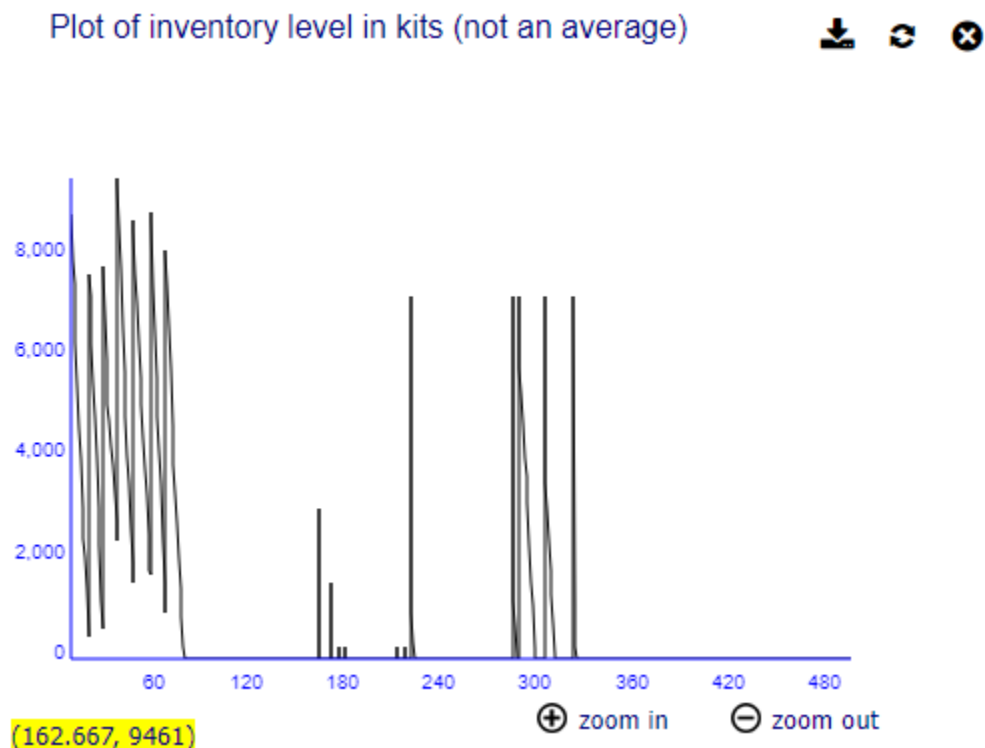


Figure 1 Materials buffer

Around day 280, we started to ask other teams for guidance and we decided to increase our debt because we did not have enough cash for buying materials. We changed back to contract 1 and changed the settings back to default. Few days after the changes, we tried to predict the data pattern of the material usage in station 1 as you can see in figure 2 and started receiving revenue

again but it was still not enough to have positive income. We then ask for more debt increase but it didn't change the fact the factory could not be saved anymore. Day 325 and onwards before the factory closes, we as a team decided to do nothing else because we were over 200K cash in debt and concluded that the factory cannot be saved.

Plot of daily average number of kits queued for station 1

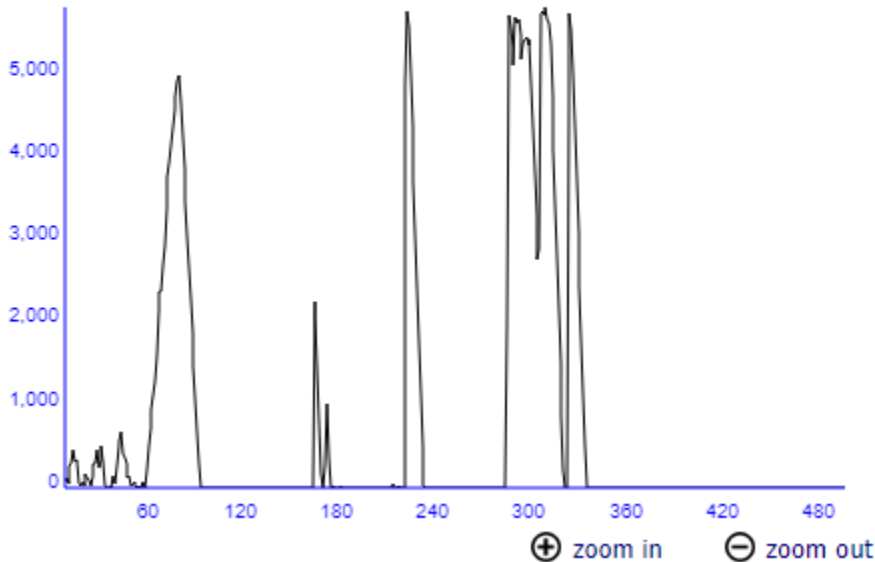
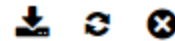


Figure 2 Station 1 Materials queue

## Personal Reflection

I have learned that I should communicate with the team better and offer solution that can benefit the factory. I did some research on the slides given in the lecture and found some solution however it was already too late. What I would do better in the next assignment is understand the goal of the simulation and what settings that can be changed. And with this knowledge, I can offer a solution where the whole team can agree on it.

## Conclusion

In conclusion, we learned our lesson not to make sudden changes without discussing and have everyone in the team agree first. The summary was very short because most of the time the changes does not give any positive outcome and it only led us to be in a huge debt. We will use this assignment as a lesson and we will try not to do the same mistake in the next simulation game.