Simulation Use Case 1

# Assignment 1

Calculated throughput

Lowest throughput bottleneck time per hour \* hours per day \* workdays

3 \* 8 \* 5 = 120

Loss of production = 10%

120 \* 0,90 = 108 trailers per week

# Assignment 2

A screen shot of a computer

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## Standard

### Result

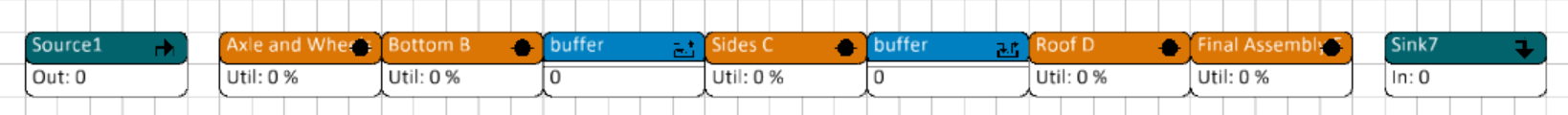
## A graph on a white background Description automatically generatedStrategy 1 - Reduced repair time

### Result

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## Strategy 2 – buffer zones



A screenshot of a computer

Description automatically generated

On the right side you can see the min a max waiting time between each of the server nodes. As you can see the transfer from server B to server C has a minimal transfer time of 1 minute. Because of that it has the highest priority to get a buffer to reduce transfer times. After that we look at the max possible transfer times. The transfer from server C to server D has the second max transfer time. So, this transfer has the second highest priority to get a buffer for transfer time reduction.

### A graph on a white background Description automatically generatedResults

## Overall results

|  |  |
| --- | --- |
| Scenario | Week production |
| *Standard* | 95,98 |
| *Reduced repair* | 109,39 |
| *bufffer before c and D* | 105,99 |