

Scheduling Report

L. O'Toole and H. Simonis

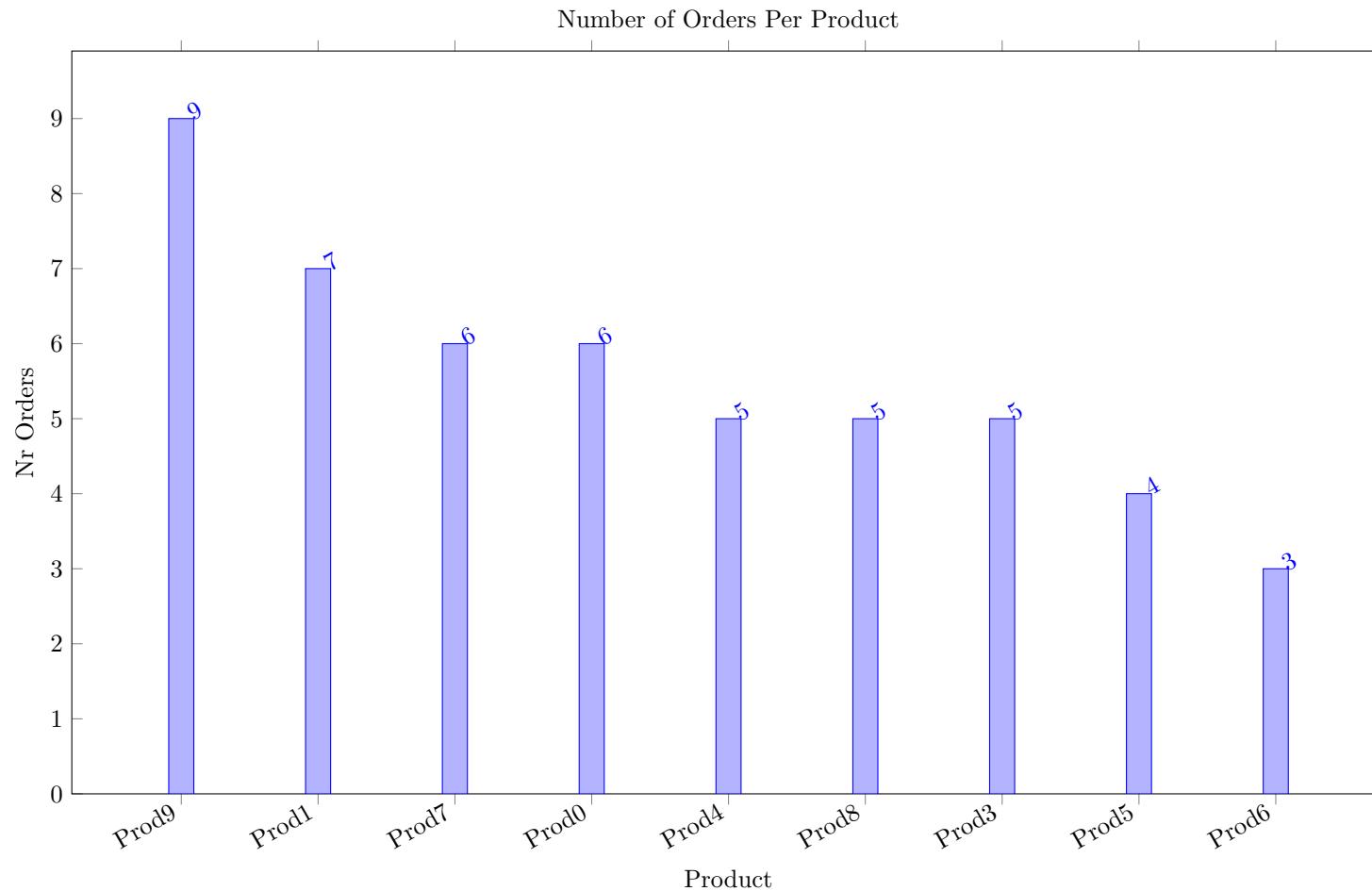
Report Generated on October 14, 2024

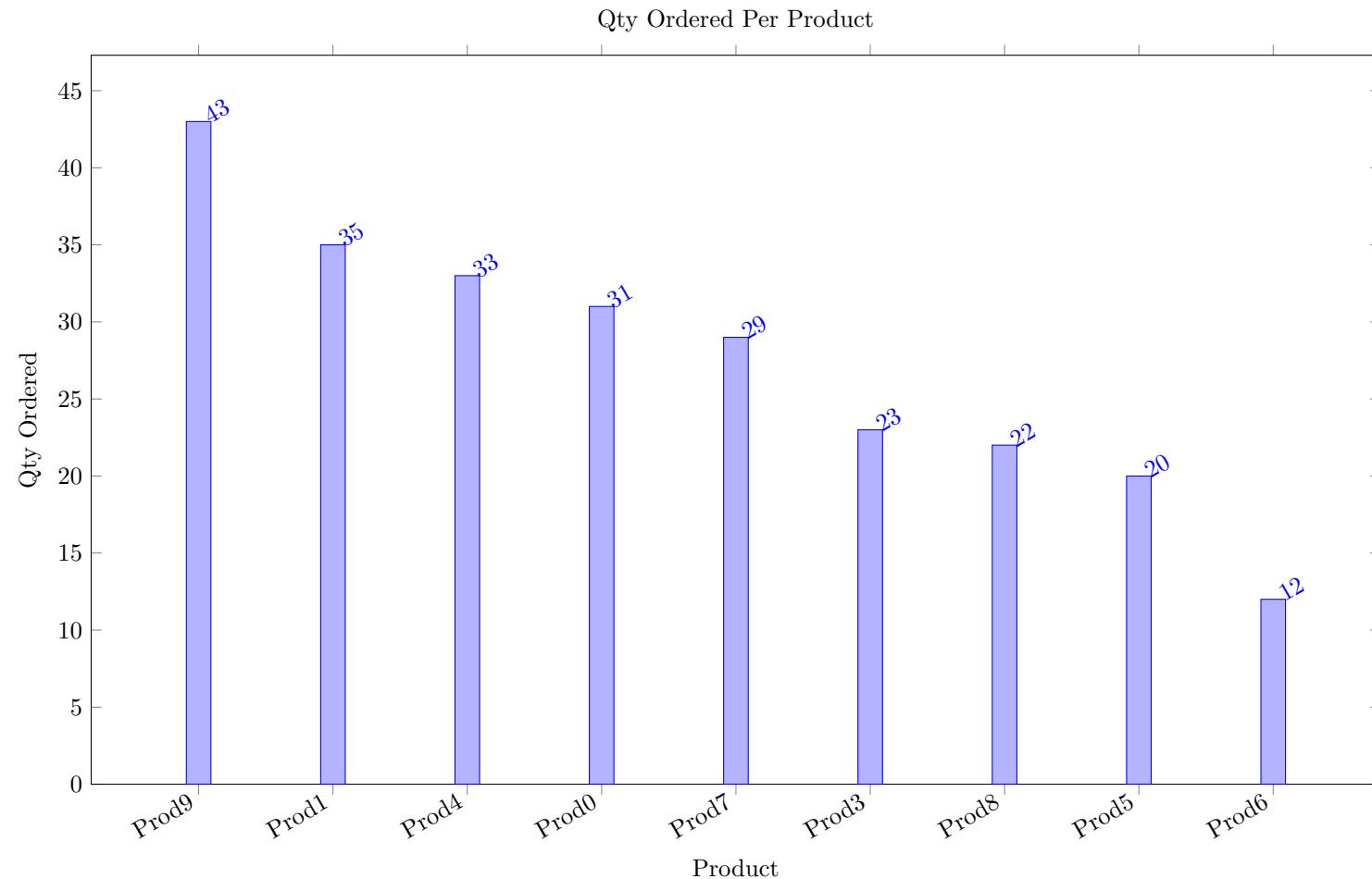
1 Introduction

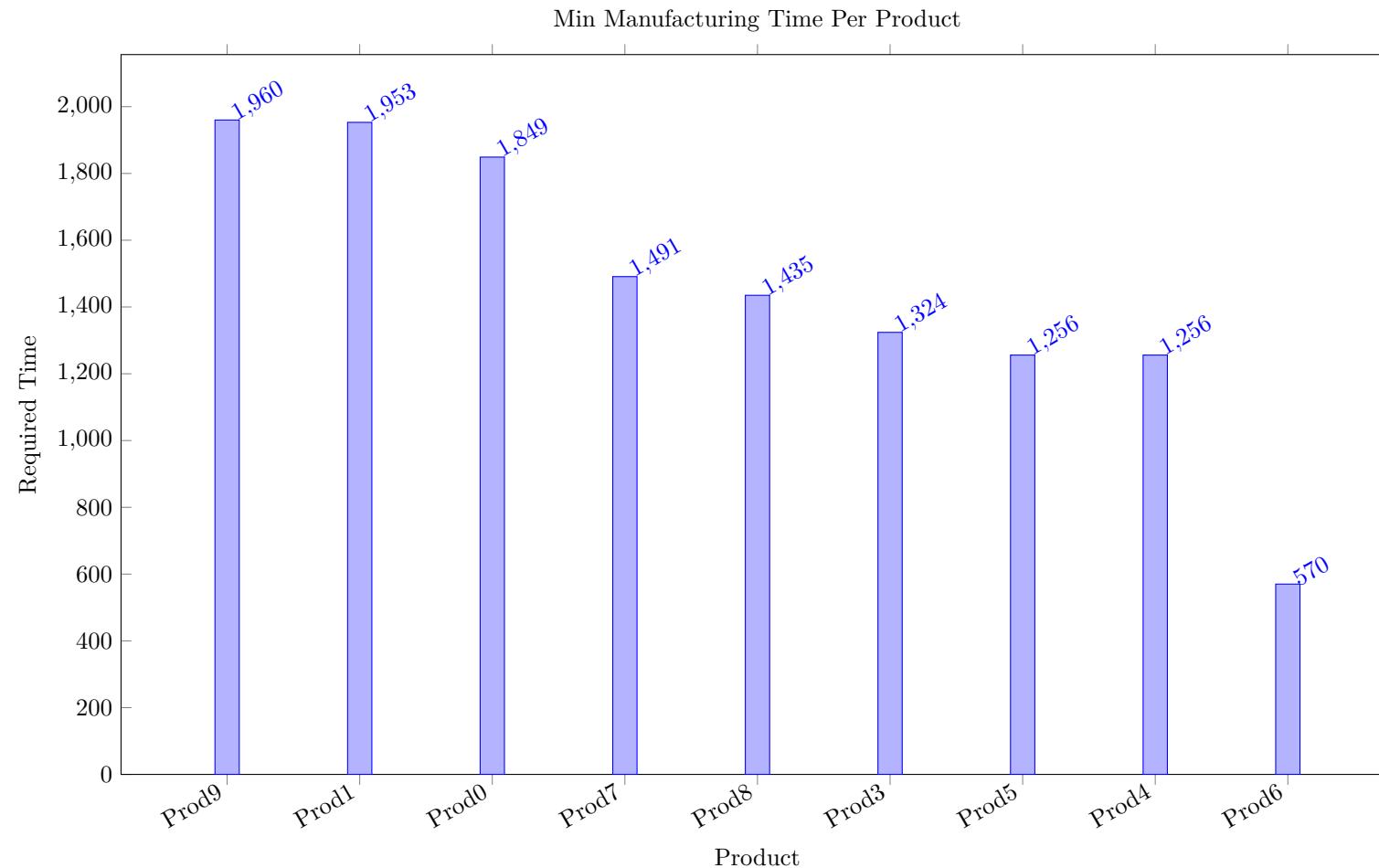
Table 1: Problem

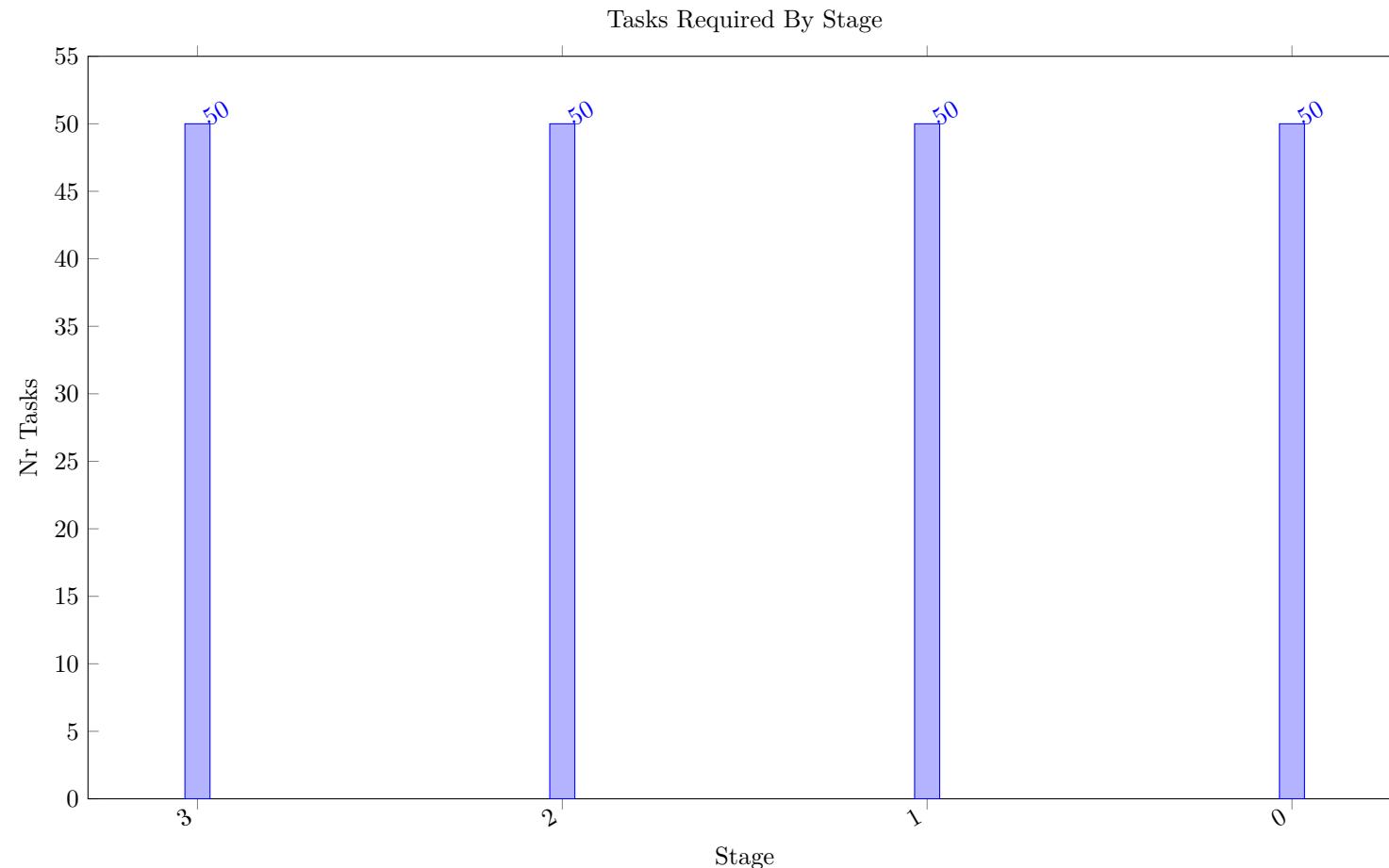
Name	Label	Timepoints as Date	Nr Products	Nr Process	Nr Disjunctive Resources	Nr Cumulative Resources	Nr Orders	Nr Jobs	Nr Tasks
Generated		true	10	10	8	1	50	50	200

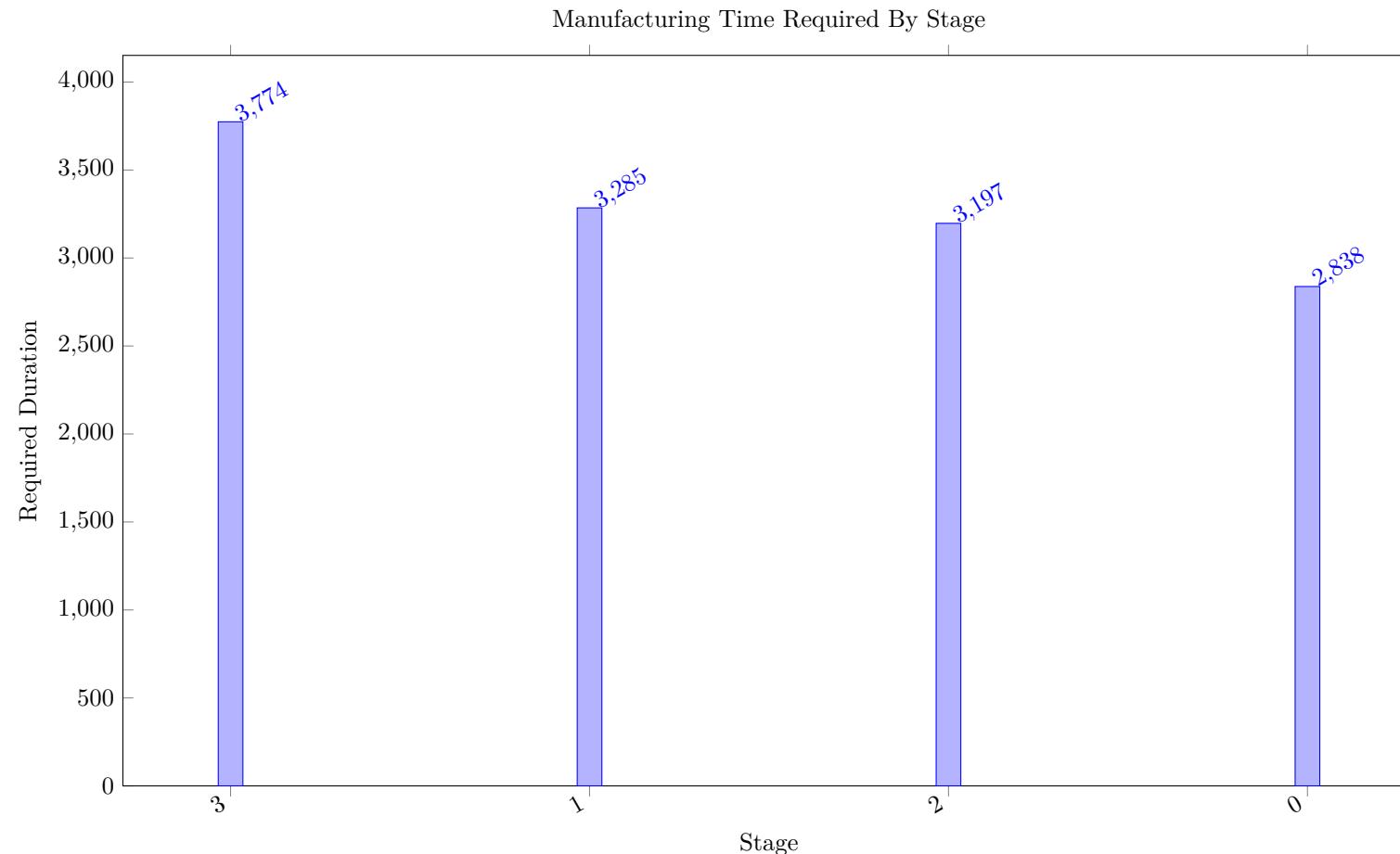
2 Orders

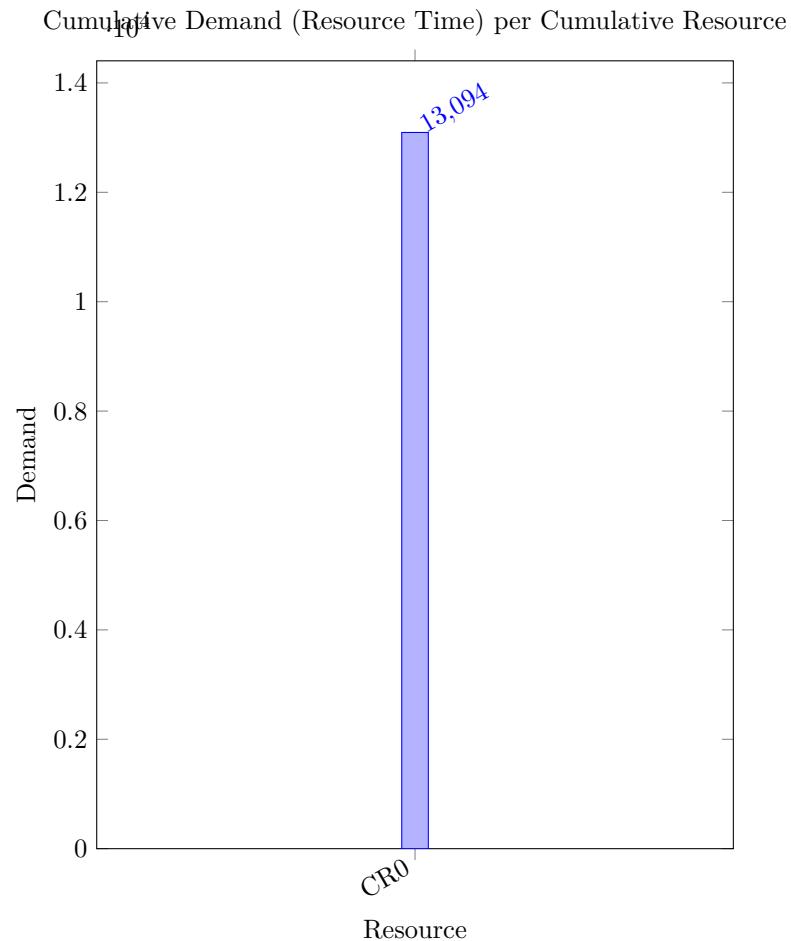


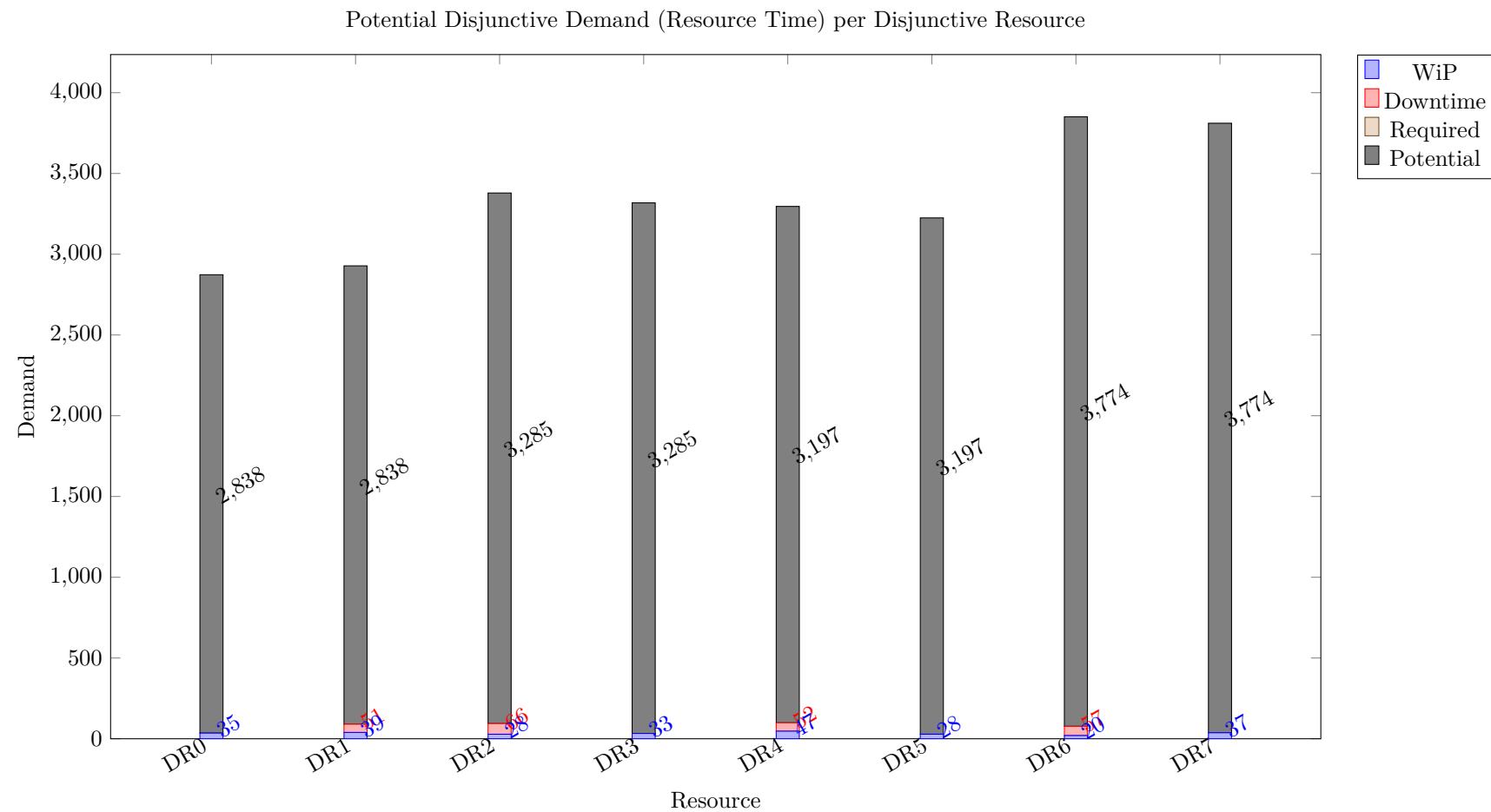












3 Solution

Table 2: Relaxation of Constraints

Name	Label	Enforce Release Date	Enforce Due Date	Enforce Cumulative	Enforce WiP	Enforce Downtime	Objective Type	Weight Makespan	Weight Flowtime	Weight Lateness	Weight Earliness	Nr Threads	Timeout (s)
Sol2		true	false	true	true	true	Makespan	1	1	1	1	2	30

Table 3: Solutions (Total 1)

Name	Solver Status	Objective Type	Objective Value	Bound	Gap	Makespan	Flowtime	Total Lateness	Max Lateness	Nr Late	Total Earliness	Max Earliness	Nr Early	Model Type	Time (s)
Sol2	Solution	Makespan	2,565	1672.00	0.35	2,565	77,473	4,598	1,433	5	82,534	5,081	45	CPO	30.05

Figure 1: Cost of Intermediate Solutions

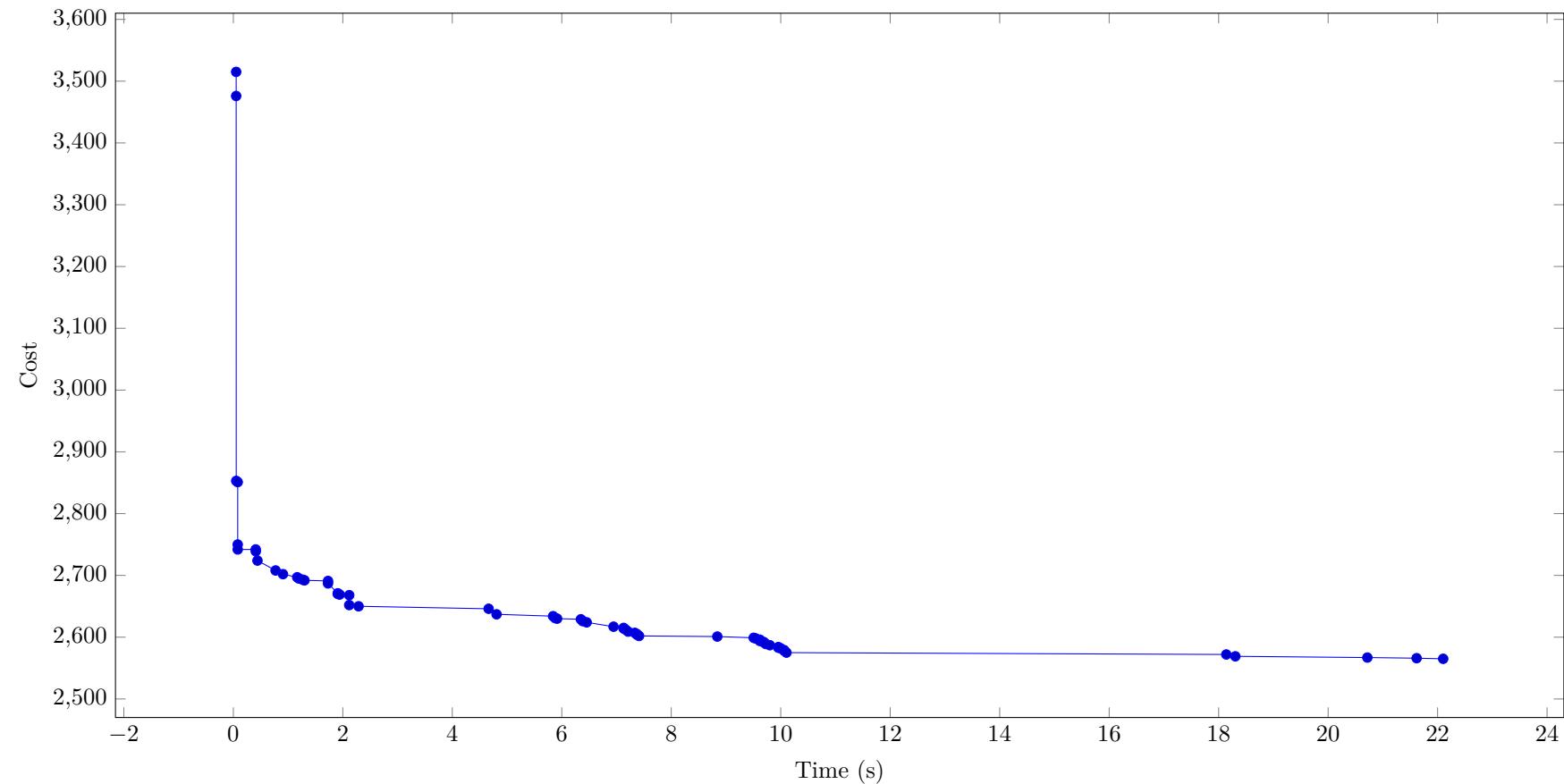


Figure 2: Machine Gantt for Solution Sol2

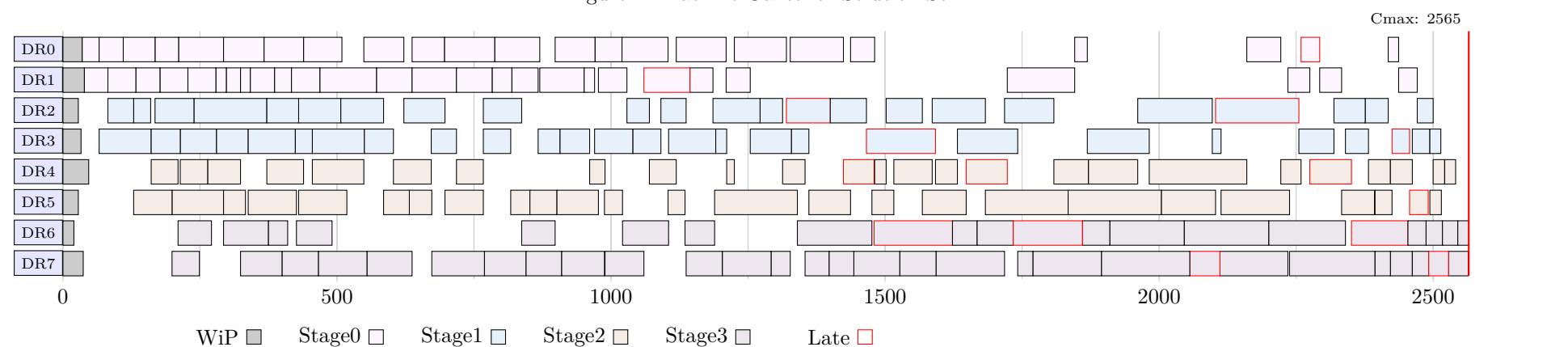


Figure 3: Job Gantt for Solution Sol2 (Part 1 of 2)

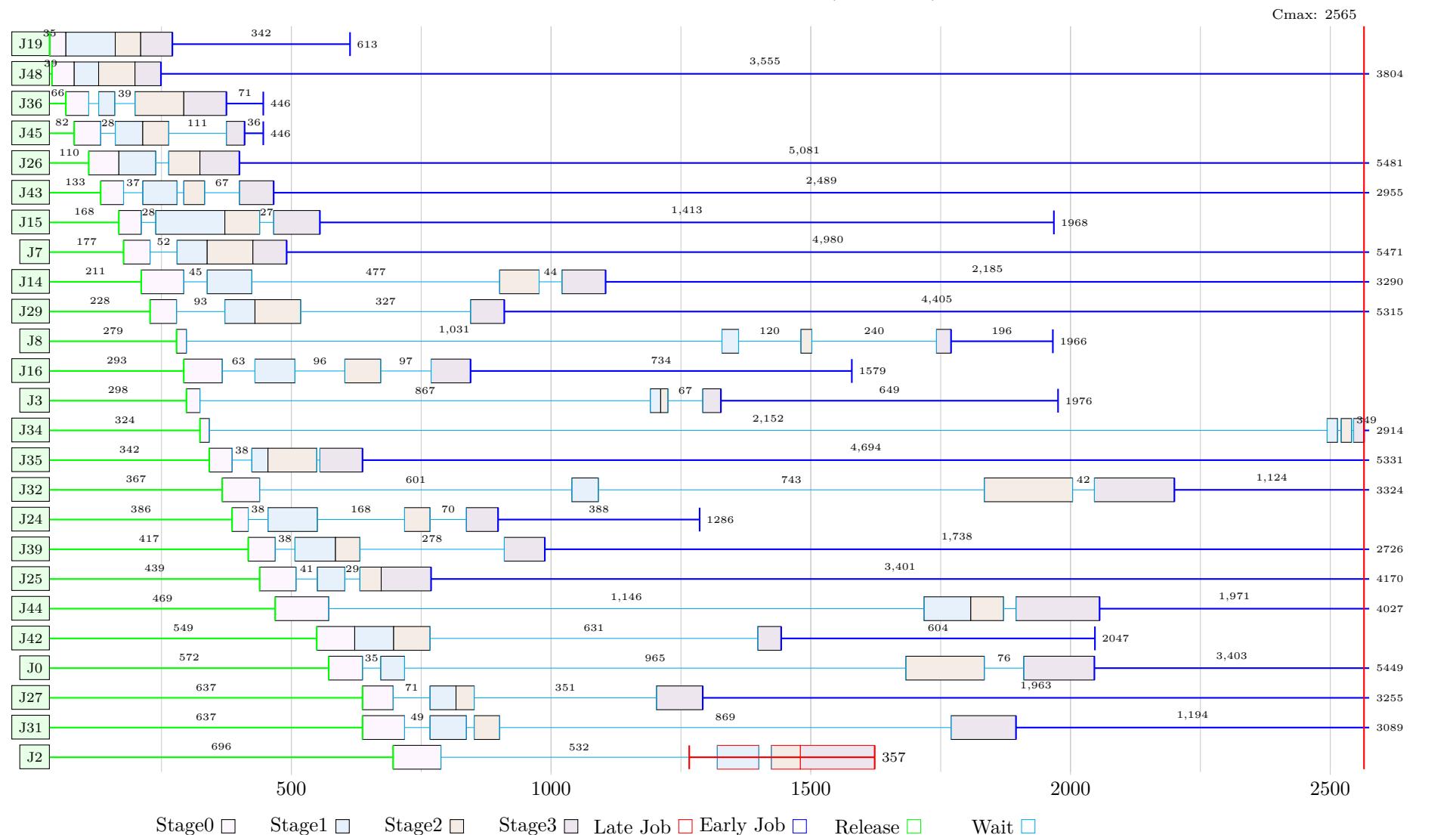
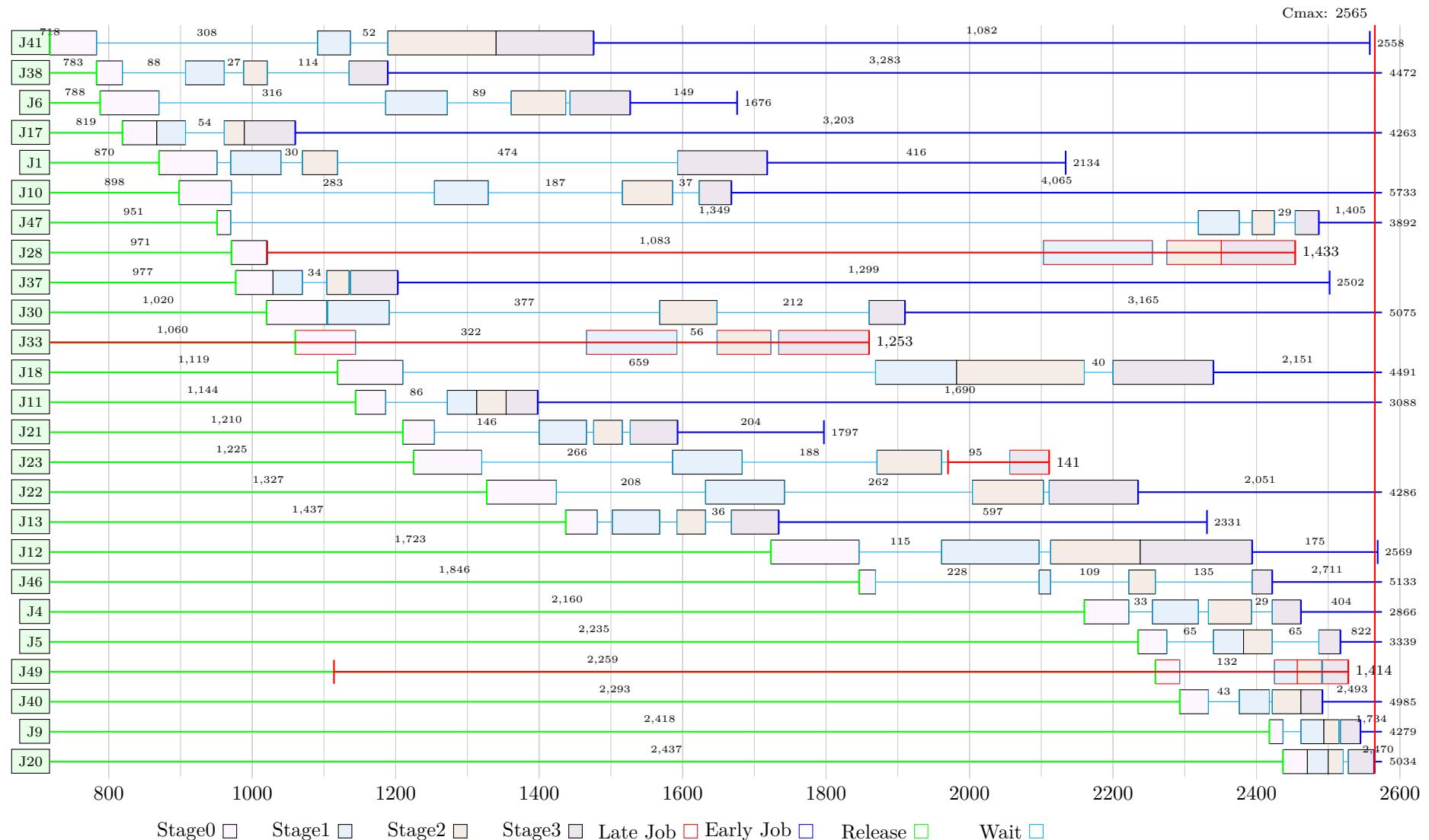


Figure 4: Job Gantt for Solution Sol2 (Part 2 of 2)



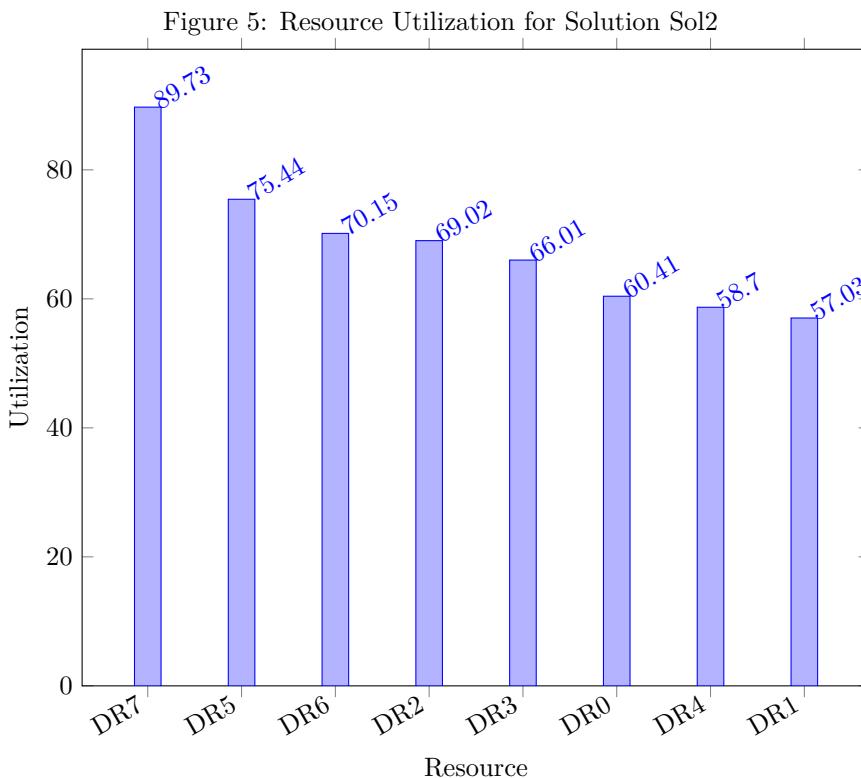


Figure 6: Cumulative Resource Use CR0

