

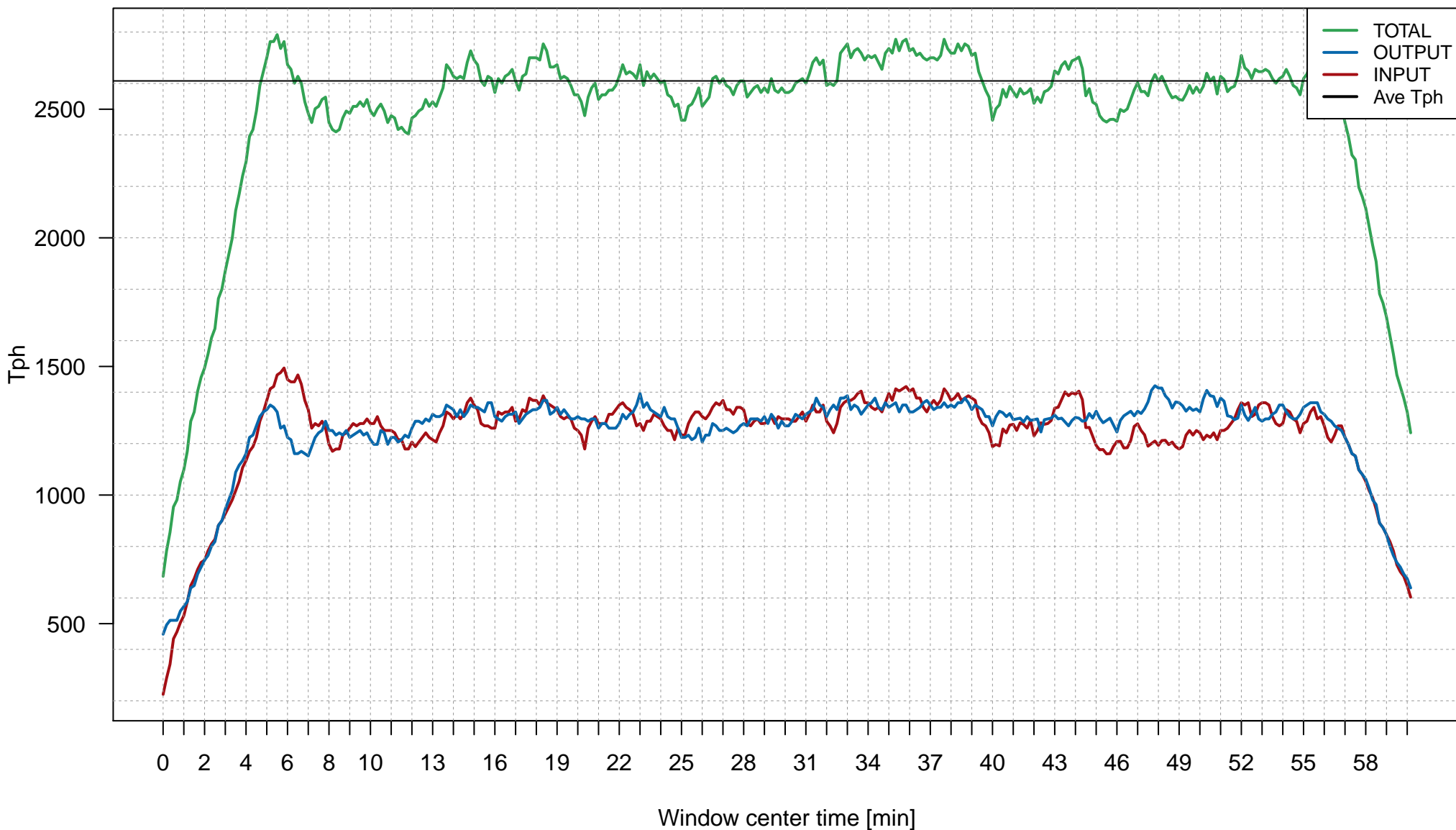
## Test summary

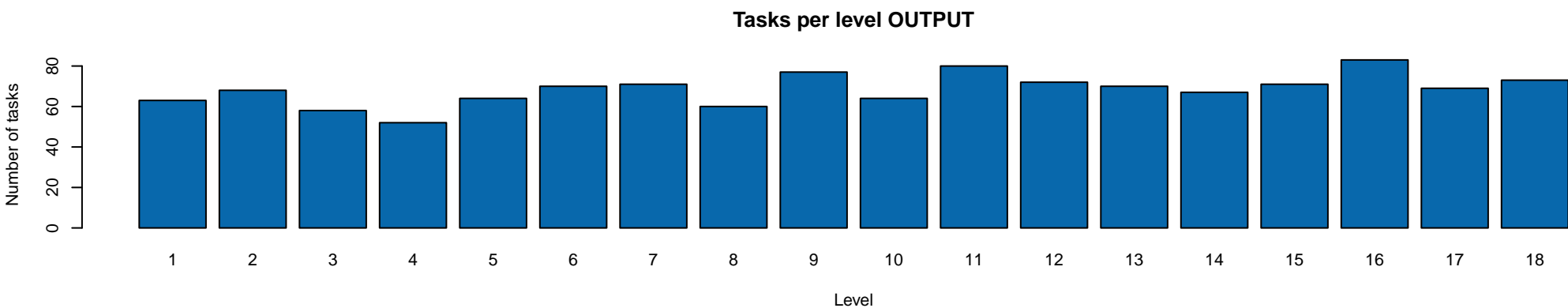
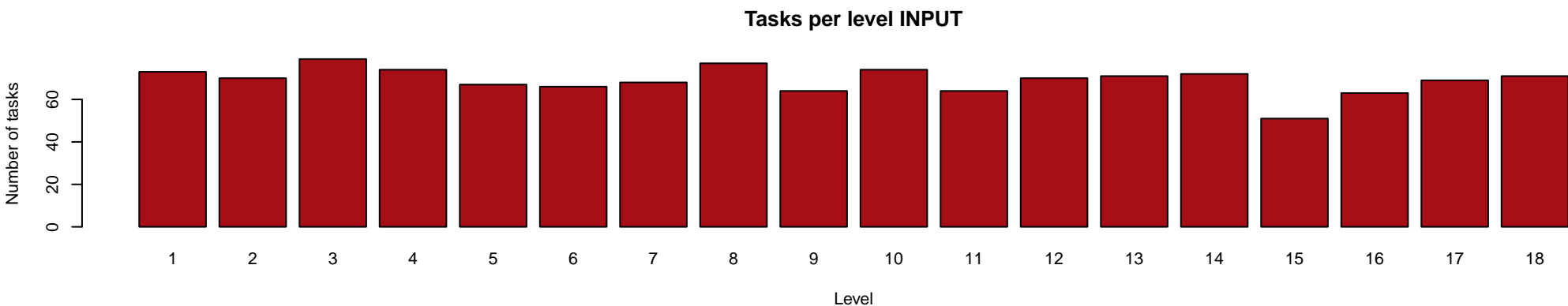
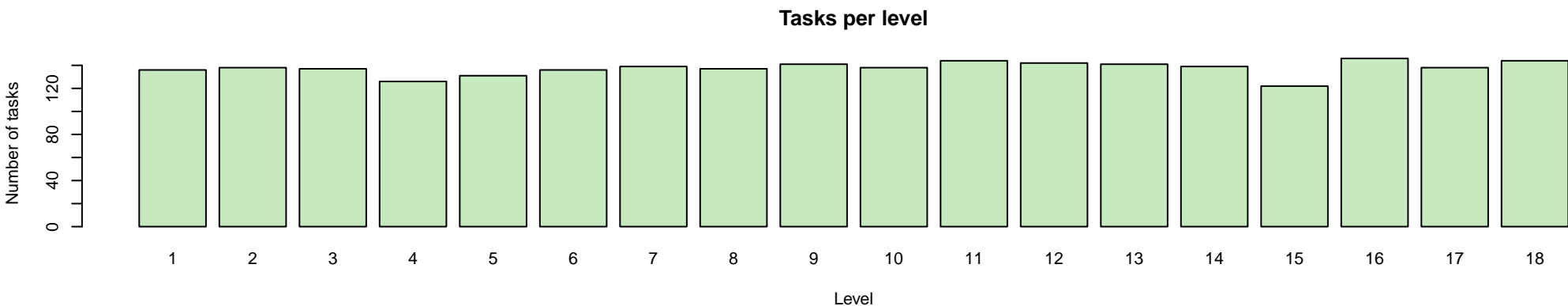
Target 1 module, 2 IN + 2 OUT MVCs  
Number of levels: 18  
Number of bots: 108  
Number of bots per level: 6  
Number of tasks: 2475  
Number of INPUT tasks: 1243  
Number of OUTPUT tasks: 1232  
Simulation time: 60 minutes

## Throughput stats

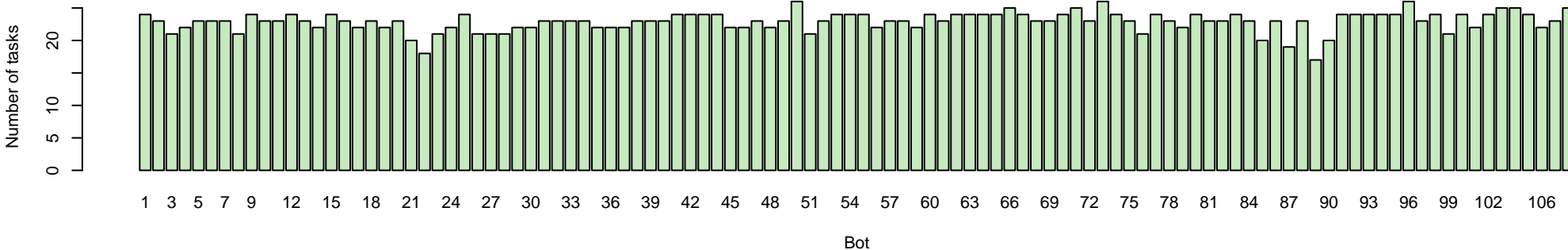
Throughput: 0.725 [tasks/s]  
Tph: 2610 [tasks/h] (theoretical limit = 5760[tasks/h])  
Tph INPUT: 1314 [tasks/h] (theoretical limit = 2880[tasks/h])  
Tph OUTPUT: 1296 [tasks/h] (theoretical limit = 2880[tasks/h])  
Tpb: 24.17 [tasks/h] (theoretical limit = 53.34[tasks/h])  
Tpb INPUT: 12.17 [tasks/h] (theoretical limit = 26.67[tasks/h])  
Tpb OUTPUT: 12 [tasks/h] (theoretical limit = 26.67[tasks/h])

# Throughput plot

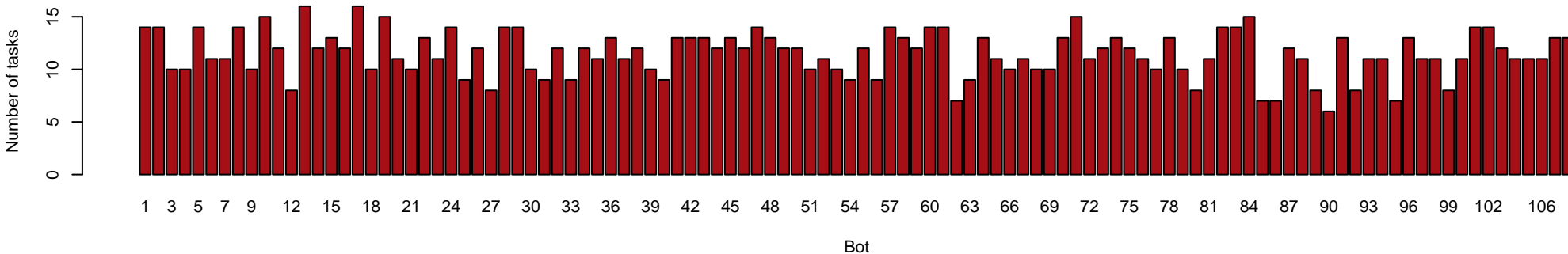




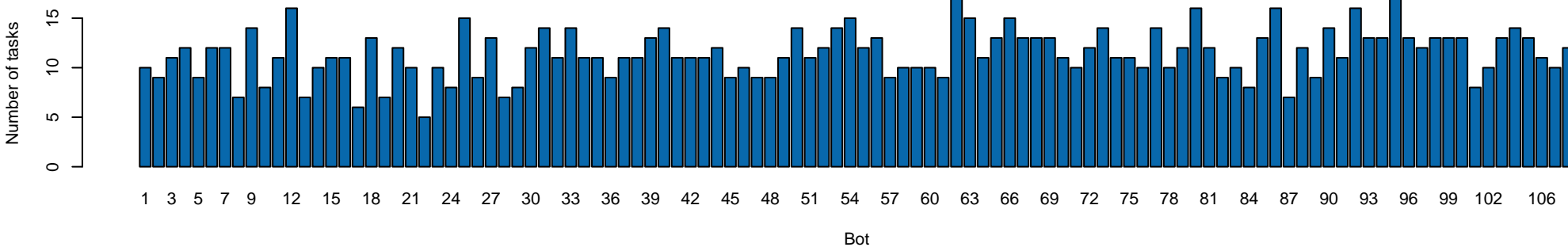
Tasks per bot



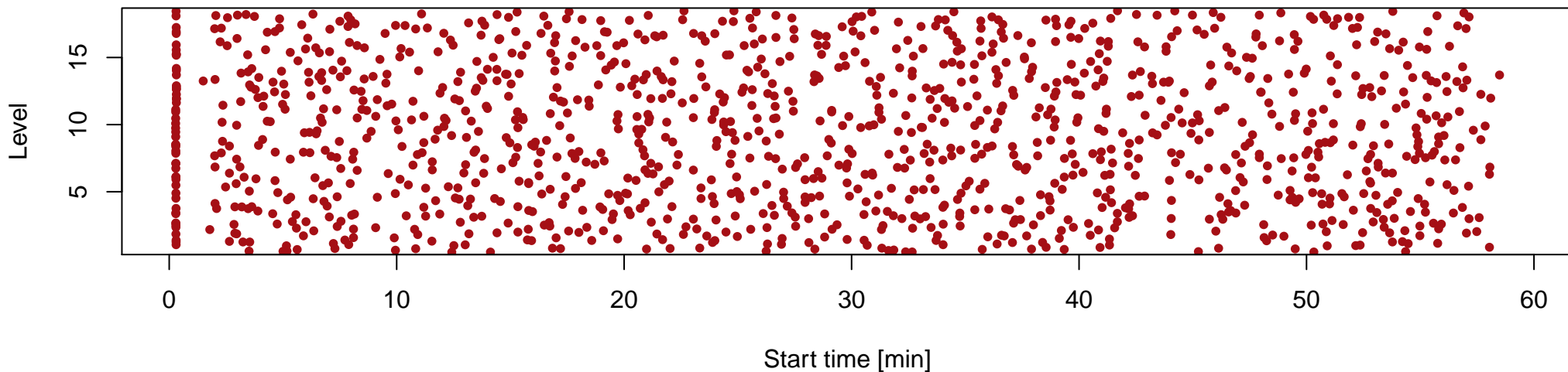
Tasks per bot INPUT



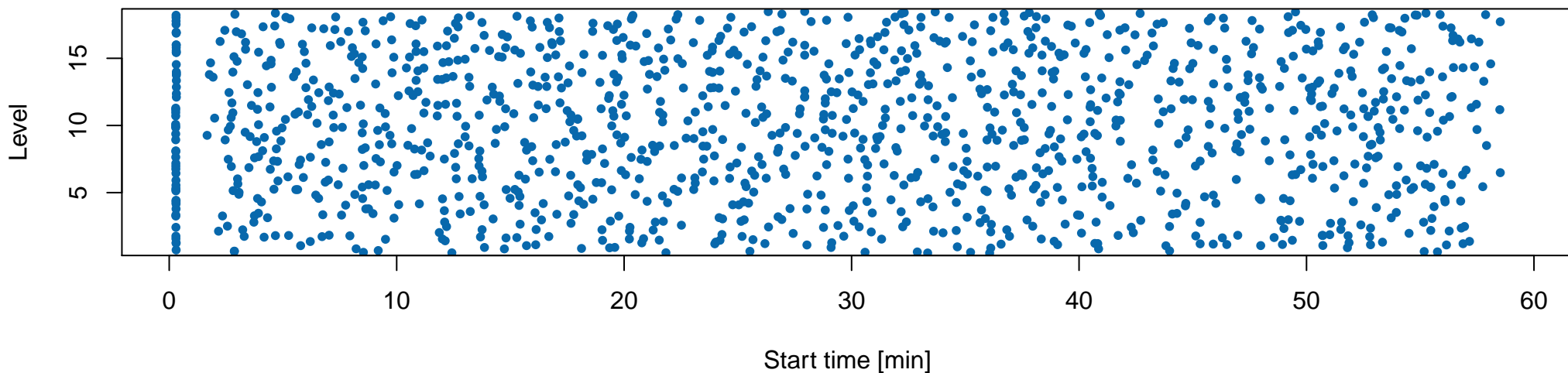
Tasks per level OUTPUT



**Distribution of tasks between levels in time (INPUT)**



**Distribution of tasks between levels in time (OUTPUT)**



Cycle time [s]

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
68.32	119	136	144.5	159.6	419.1

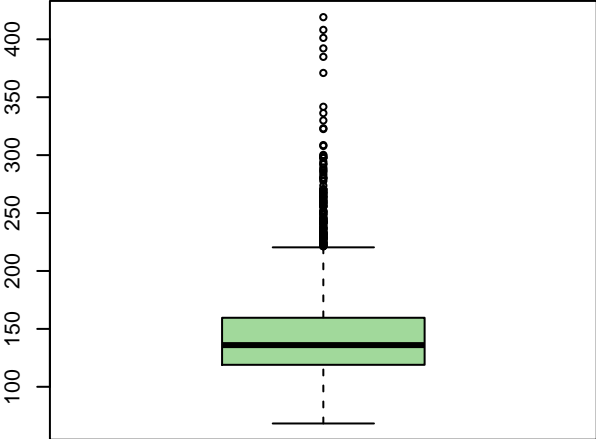
Cycle time INPUT [s]

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
88.12	117.6	132.1	143.9	158.3	419.1

Cycle time OUTPUT [s]

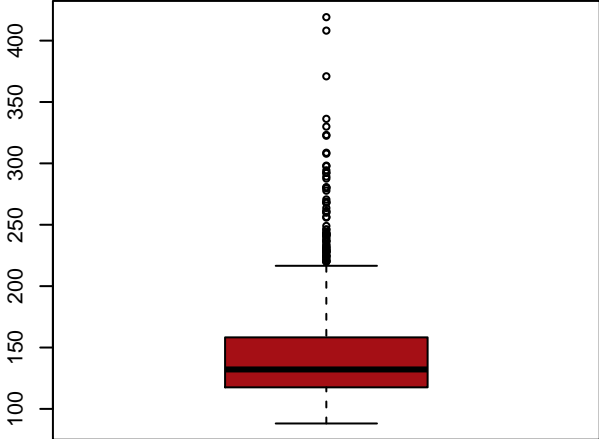
Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
68.32	120.5	139.4	145.1	160.4	401.2

Boxplot for cycle time



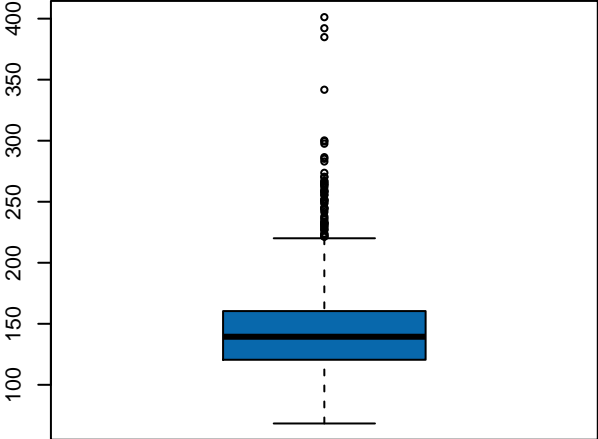
time [s]

Boxplot for cycle time INPUT



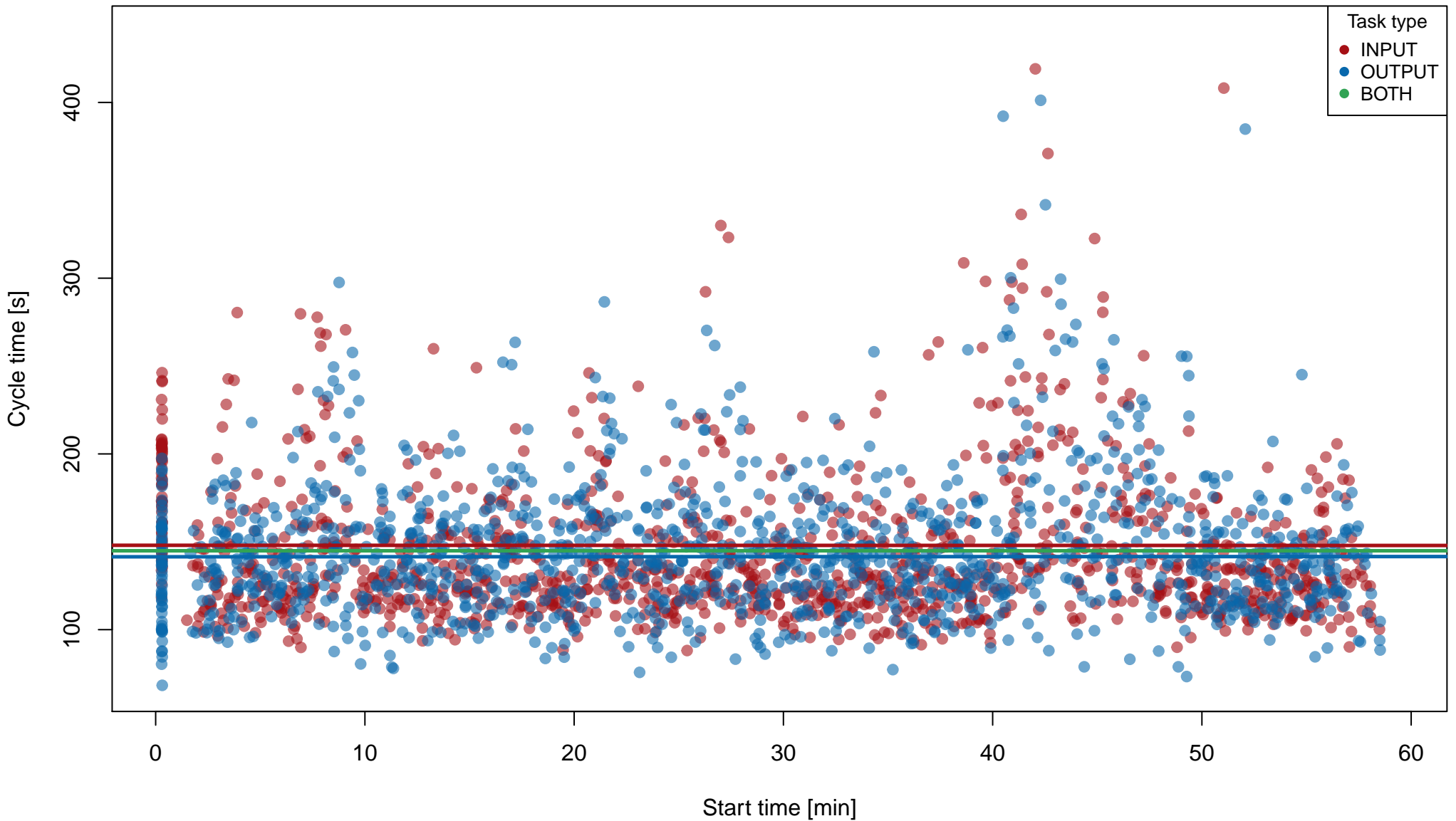
time [s]

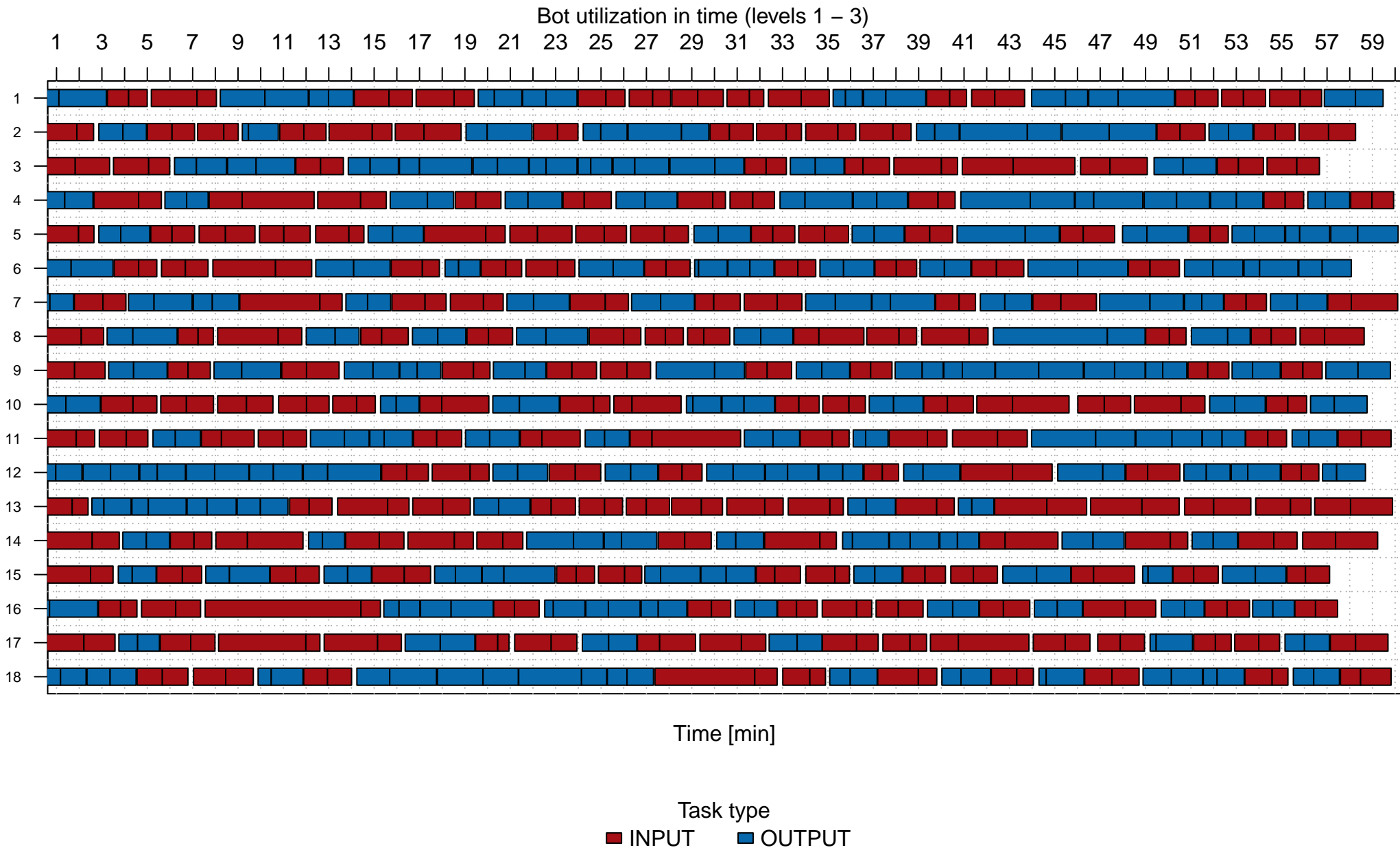
Boxplot for cycle time OUTPUT



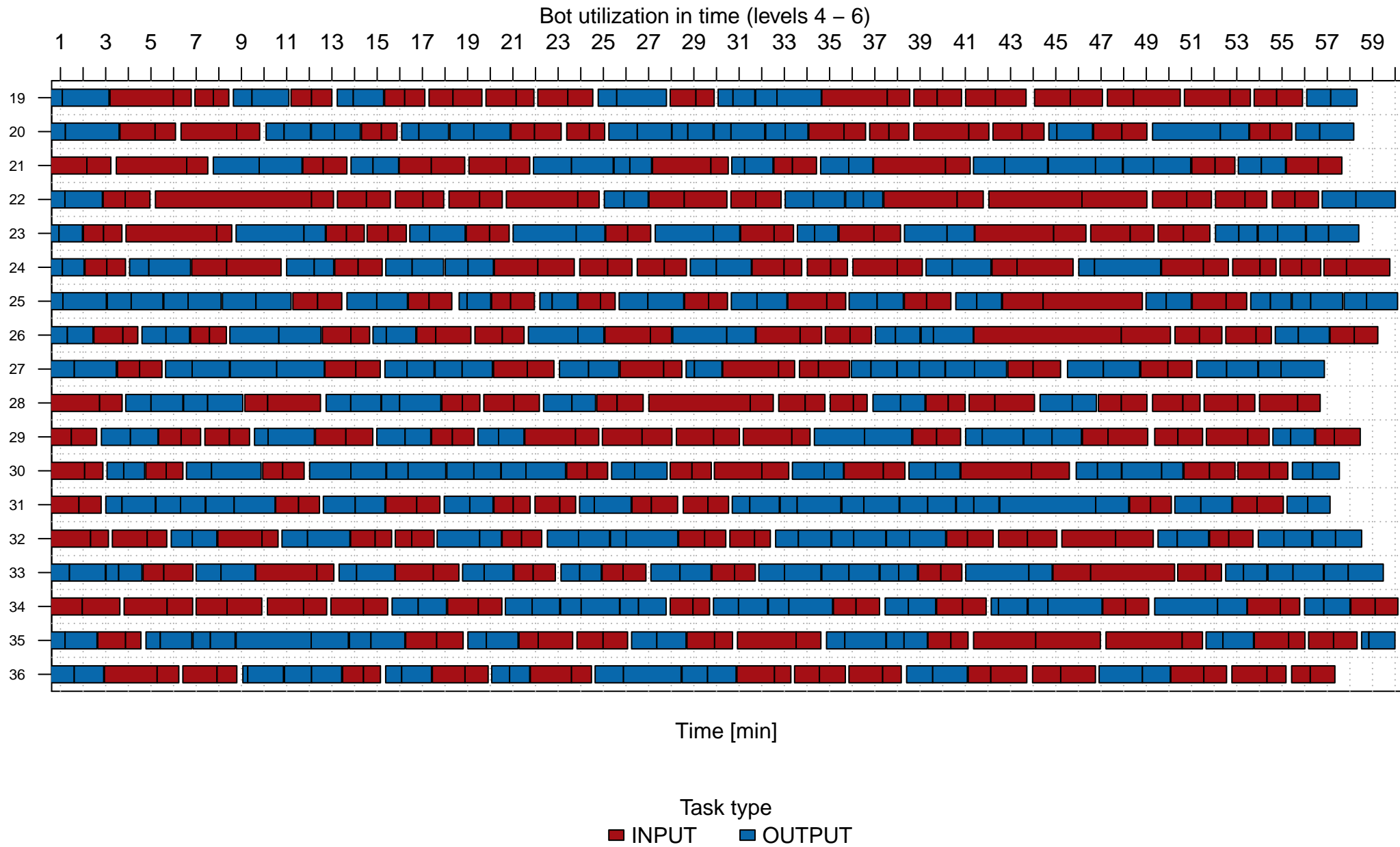
time [s]

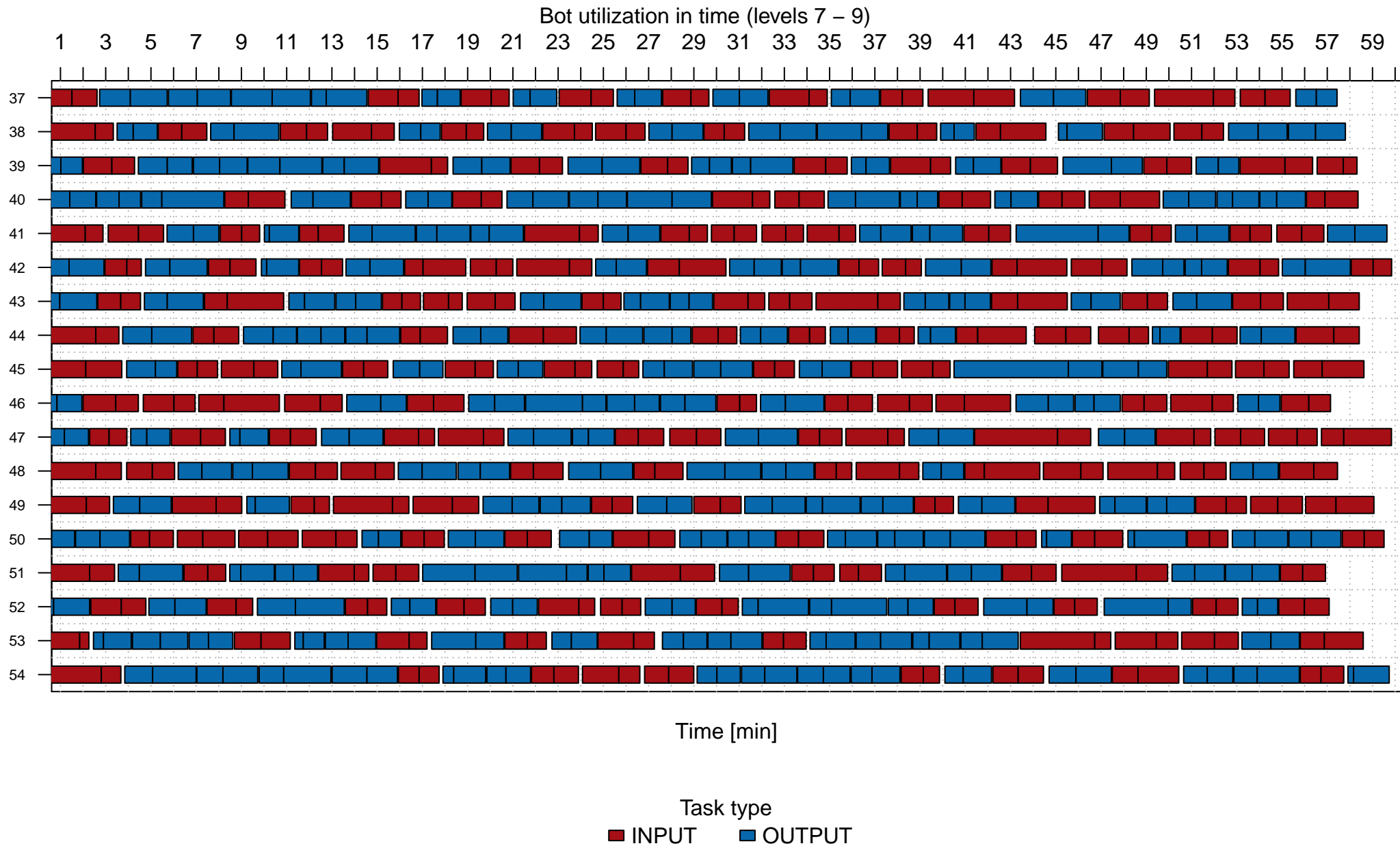
Start time vs. cycle time

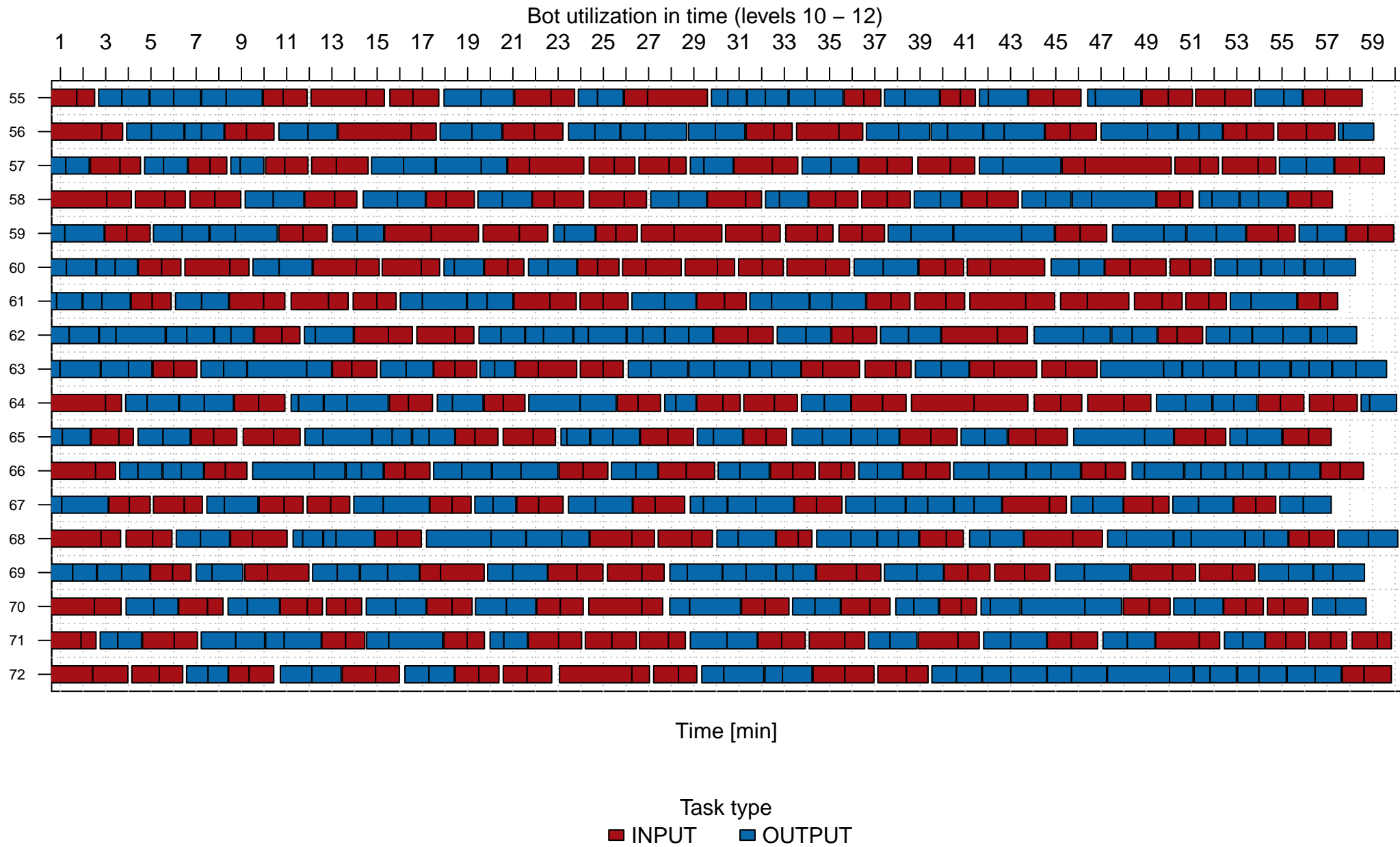




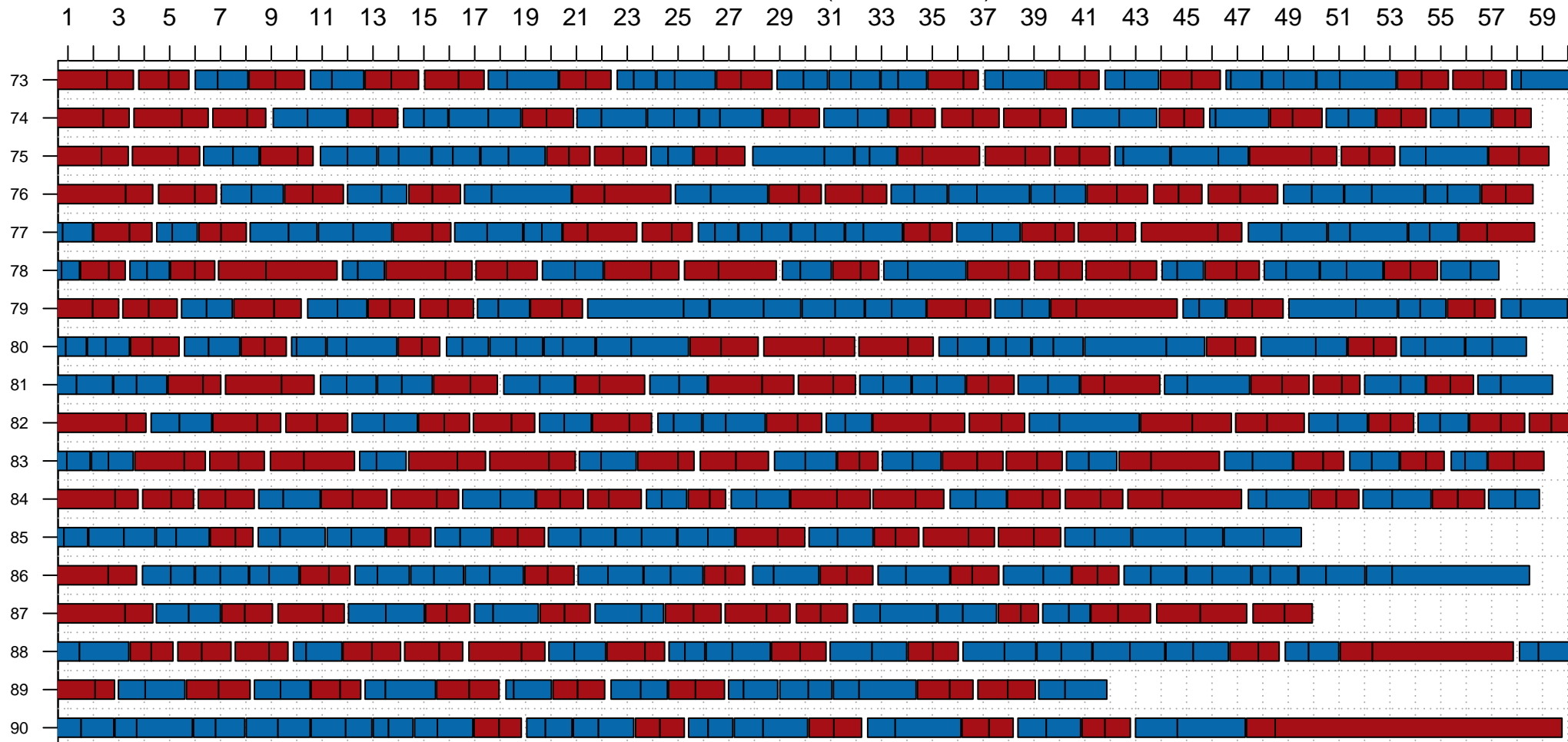








Bot utilization in time (levels 13 – 15)

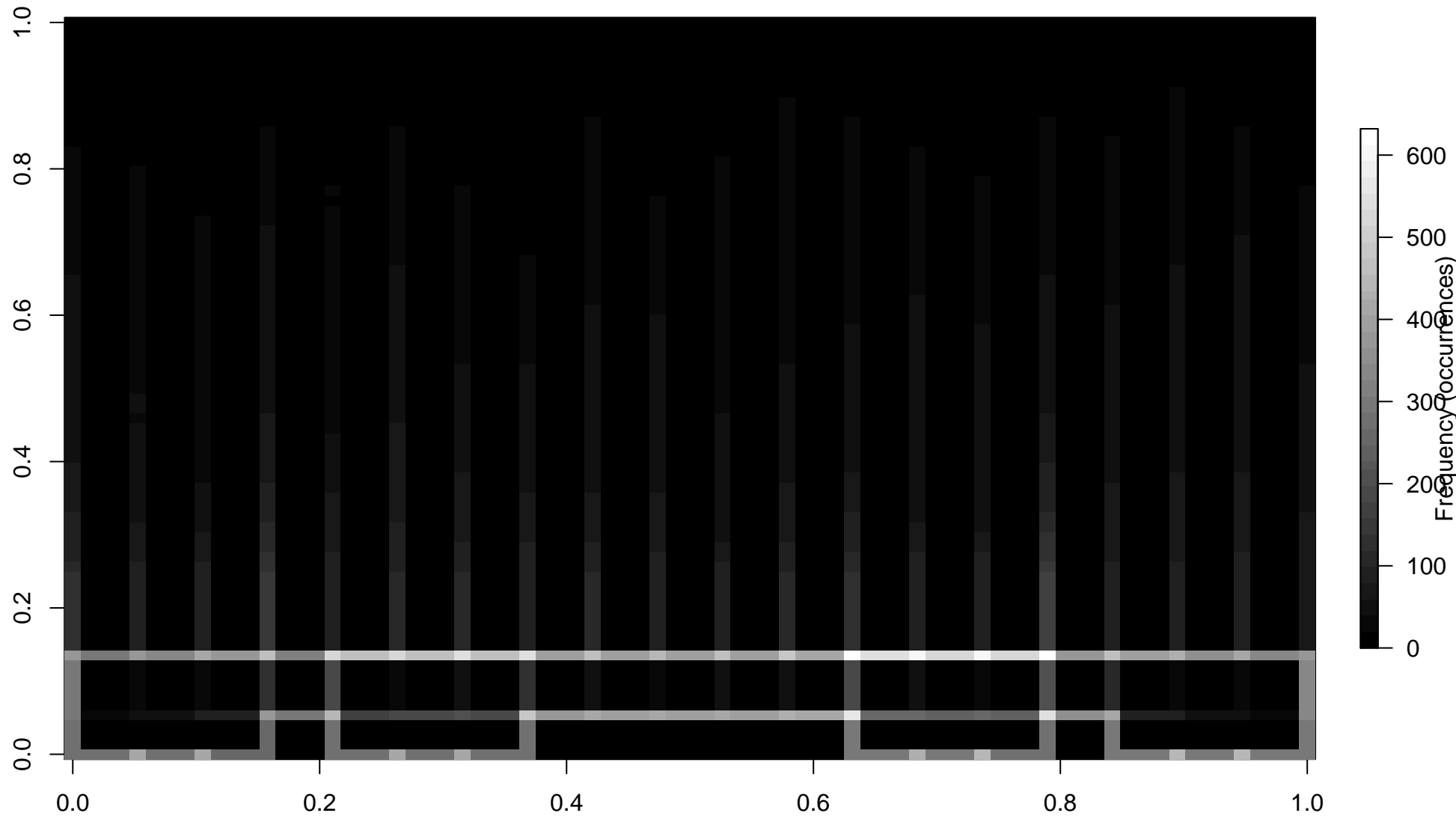


Time [min]

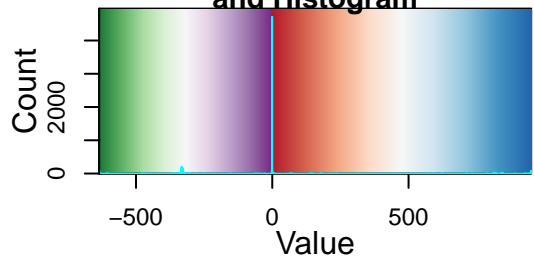
Task type  
■ INPUT    ■ OUTPUT



Frequency of visiting nodes (popular nodes)



Color Key  
and Histogram



Directions map

