

This is a sample run for a random test case.

```
Enter Test File Name:
testcase1
Select Program Mode: (1 for Interactive mode, 2 for Step-by-step mode, 3 for Silent mode): 1
INTERACTIVE MODE
Press Enter to Start.
```

1. The user is prompted to enter the file name, and choose a mode.

```
Current Time (Day:Hour):1:4
4 Waiting Cargos: [1 N 0:0 0:0,2 N 0:0 0:0] (3 S 0:0 0:0) {4 V 0:0 0:0}
-----
0 Loading Trucks:
-----
0 Loading Cargos:
-----
21 Empty Trucks: 130 2 N ,126 2 N ,136 1 N ,123 2 N ,133 1 N ,113 2 N ,110 2 N ,120 1 N ,117 1 N ,81 2 S ,78 2 S ,88 1 S ,85 1 S ,48 2 S ,44 2 S ,41 2 S ,13
1 2 V ,121 2 V ,118 2 V ,128 1 V ,125 1 V
-----
0 Moving Trucks:
-----
0 Moving Cargos:
-----
0 In-Checkup Trucks:
-----
0 Delivered Cargos:
-----
Press ENTER to proceed with next time.
```

2. The input file is read. Company time starts on day 1 hour 0. Additional details like car speeds are printed for better illustration of the process. More importantly, note that no cargo assigning takes place before the company working hours ( $5 \leq WH \leq 23$ ).

```
Current Time (Day:Hour):1:5
1 Waiting Cargos: (3 S 0:0 0:0)
-----
2 Loading Trucks: 131 2 V ,130 2 N
-----
4 Loading Cargos: 4 V 1:8 1:10,1 V 1:8 1:11,2 N 1:12 1:17,5 N 1:12 1:16
-----
19 Empty Trucks: 126 2 N ,136 1 N ,123 2 N ,133 1 N ,113 2 N ,110 2 N ,120 1 N ,117 1 N ,81 2 S ,78 2 S ,88 1 S ,85 1 S ,48 2 S ,44 2 S ,41 2 S ,121 2 V ,11
8 2 V ,128 1 V ,125 1 V
-----
0 Moving Trucks:
-----
0 Moving Cargos:
-----
0 In-Checkup Trucks:
-----
0 Delivered Cargos:
-----
Press ENTER to proceed with next time.
```

Activate Windows  
Go to Settings to activate Windows.

3. By the start of company working hours, cargos (the accumulated ones in addition to the newly arriving) are loaded, if possible. Each cargo has its ID printed, along with its moving time and delivery time.

```

Current Time (Day:Hour):1:10
0 Waiting Cargos:
-----
3 Loading Trucks: 130 2 N ,126 2 N ,81 2 S
-----
6 Loading Cargos: 2 N 1:12 1:17,5 N 1:12 1:16,7 N 1:14 1:20,8 N 1:14 1:16,3 S 1:18 2:3,6 S 1:18 1:23
-----
17 Empty Trucks: 136 1 N ,123 2 N ,133 1 N ,113 2 N ,110 2 N ,120 1 N ,117 1 N ,78 2 S ,88 1 S ,85 1 S ,48 2 S ,44 2 S ,41 2 S ,121 2 V ,118 2 V ,128 1 V ,125 1 V
-----
1 Moving Trucks: 131 2 V
-----
1 Moving Cargos: 131 2 V
-----
0 In-Checkup Trucks:
-----
1 Delivered Cargos: {4 V 1:8 1:10}
-----
Press ENTER to proceed with next time.

```

4. After the loading time has passed, we can see that some trucks are now moving and carrying some cargos. And one cargo has been successfully delivered in the expected time.

```

Current Time (Day:Hour):1:11
0 Waiting Cargos:
-----
4 Loading Trucks: 130 2 N ,136 1 N ,126 2 N ,81 2 S
-----
7 Loading Cargos: 2 N 1:12 1:17,5 N 1:12 1:16,9 V 1:13 1:16,7 N 1:14 1:20,8 N 1:14 1:16,3 S 1:18 2:3,6 S 1:18 1:23
-----
16 Empty Trucks: 123 2 N ,133 1 N ,113 2 N ,110 2 N ,120 1 N ,117 1 N ,78 2 S ,88 1 S ,85 1 S ,48 2 S ,44 2 S ,41 2 S ,121 2 V ,118 2 V ,128 1 V ,125 1 V
-----
1 Moving Trucks: 131 2 V
-----
0 Moving Cargos:
-----
0 In-Checkup Trucks:
-----
2 Delivered Cargos: {4 V 1:8 1:10} {1 V 1:8 1:11}
-----
Press ENTER to proceed with next time.

```

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5. Another cargo has arrived, and more cargos are being loaded.

```

Current Time (Day:Hour):1:17
1 Waiting Cargos: [14 N 0:0 0:0]
-----
3 Loading Trucks: 81 2 S ,85 1 S ,78 2 S
-----
5 Loading Cargos: 6 S 1:18 1:23,3 S 1:18 2:3,13 S 1:20 2:2,10 S 2:3 2:13,12 S 2:3 2:8
-----
13 Empty Trucks: 123 2 N ,133 1 N ,113 2 N ,110 2 N ,120 1 N ,117 1 N ,48 2 S ,44 2 S ,41 2 S ,121 2 V ,118 2 V ,128 1 V ,125 1 V
-----
3 Moving Trucks: 88 1 S ,130 2 N ,126 2 N
-----
2 Moving Cargos: 88 1 S ,130 2 N ,126 2 N
-----
2 In-Checkup Trucks: 131 2 V ,136 1 N
-----
6 Delivered Cargos: {4 V 1:8 1:10} {1 V 1:8 1:11} {5 N 1:12 1:16} {9 V 1:13 1:16} {8 N 1:14 1:16} [2 N 1:12 1:17]
-----
Press ENTER to proceed with next time.

```

6. As more time passes, more cargos are successfully delivered, and some trucks have entered checkup or maintenance.

```

Current Time (Day:Hour):3:9
0 Waiting Cargos:
-----
0 Loading Trucks:
-----
0 Loading Cargos:
-----
21 Empty Trucks: 130 2 N ,126 2 N ,136 1 N ,123 2 N ,133 1 N ,113 2 N ,110 2 N ,120 1 N ,117 1 N ,81 2 S ,88 1 S ,78 2 S ,85 1 S ,48 2 S ,44 2 S ,41 2 S ,13
1 2 V ,121 2 V ,118 2 V ,128 1 V ,125 1 V
-----
0 Moving Trucks:
-----
0 Moving Cargos:
-----
0 In-Checkup Trucks:
-----
18 Delivered Cargos: {4 V 1:8 1:10} {1 V 1:8 1:11} {5 N 1:12 1:16} {9 V 1:13 1:16} {8 N 1:14 1:16} {2 N 1:12 1:17} {11 V 1:16 1:18} {7 N 1:14 1:20} {6 S 1:1
8 1:23} {13 S 1:20 2:2} {3 S 1:18 2:3} {17 S 2:4 2:7} {14 V 2:5 2:7} {12 S 2:3 2:8} {18 S 2:4 2:9} {16 V 2:5 2:12} {10 S 2:3 2:13} {19 V 2:10 2:16}
-----
Press ENTER to proceed with next time.
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```

7. Fast-forward sometime, all cargos have been delivered and all trucks are now vacant.

1	CDT	ID	PT	WT	TID
2	1:8	1	1:1	0:5	7
3	1:10	3	1:1	0:6	6
4	1:17	6	1:6	0:7	5
5	1:23	7	1:7	0:12	4
6	2:0	2	1:1	0:18	4
7	2:1	4	1:5	0:14	4
8	2:4	12	1:20	0:6	2
9	2:5	14	1:22	0:3	1
10	2:5	11	1:20	0:6	2
11	2:6	10	1:20	0:6	2
12	2:7	8	1:14	0:14	3
13	2:8	13	1:20	0:10	6
14	2:9	9	1:16	0:12	3
15	2:10	16	2:5	0:3	1
16	2:11	5	1:6	0:22	3
17	2:13	17	2:7	0:5	5
18	2:13	17	2:7	0:5	5
19	2:13	17	2:7	0:5	5
20	2:13	17	2:7	0:5	5
21	2:13	17	2:7	0:5	5
22	2:13	17	2:7	0:5	6
23	2:17	17	2:7	0:9	6
24	2:21	17	2:7	0:13	6
25	2:21	17	2:7	0:13	5
26					
27					
28	.....				
29	Important Statistics				
30	Cargos: 25 [N: 4, S: 12, V: 9]				
31	Cargo Avg Wait = 0:9				
32	Auto-Promoted Cargos: 12%				
33	Trucks: 9 [N: 3, S: 2, V: 4]				
34	Avg Active Time = 87.9032%				

8. The simulation ended, and the output file was created.