Overall, after evaluating my system, I could catch some patterns:

- Reducing delay between reaction and/or increasing duration time tends to push the c/t ratio in the same direction (lower values) regardless of the ressources we start with (as long as they are not too big)
- Decreasing duration time can lead to inconsistent c/t (from a run to another)
- Increasing resources had a similar effect on c/t ration as decreasing duration time or increasing delay

Test :

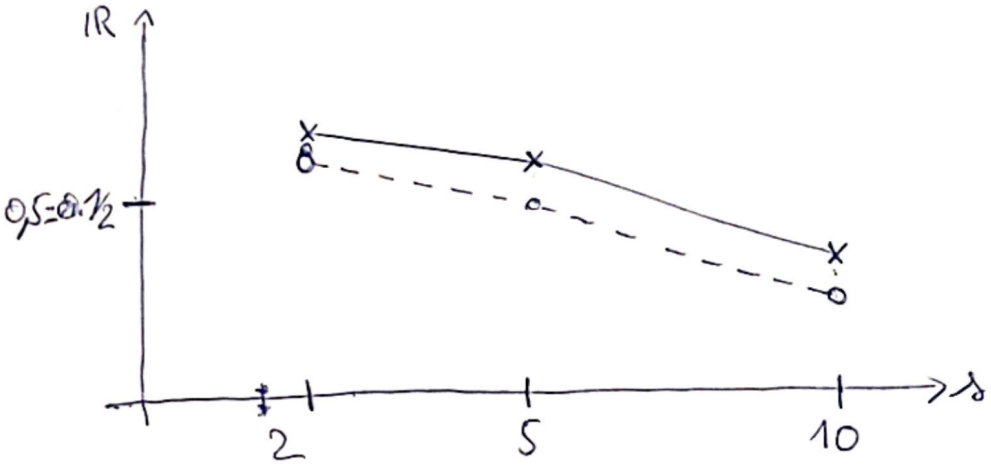
Test1 environment : Executor1 : {Reaction : "A + C" → D" ; Delay : 50 ms.}
Executor2 : {Reaction : "A + C" → B" ; Delay : 50 ms}

Machine 1 : {(A, 100) ; (B, 40)} Machine 2 : {(C, 100) ; (D, 0)}

ProcessBuilder: Time duration : {10 s. ; 5 s. ; $\frac{2}{3}$ s.}

X Exe1 : 10 s. : {0.2356 ; 0.3315 ; 0.3052} ≈ 0.2907
5 s : {0.5161 ; 0.5376 ; 0.6881} ≈ 0.5806
2 s : {0.7142 ; 0.9428 ; 0.3428} ≈ 0.6666

o Exe2 : 10 s : {0.2875 ; 0.1947 ; 0.2210} ≈ 0.2345
5 s : {0.5591 ; 0.5376 ; 0.3548} ≈ 0.4838
2 s : {0.4571 ; 0.7428 ; 0.5421} ≈ 0.5809



test 2 environment :

Machine 1 : {(A, 100); (B, 100)} Machine 2 : {(C, 100); (D, 0)}

Executor 1 : {Reaction : "A → B" ; Delay : 50ms}

Executor 2 : {Reaction : "C → D" ; Delay : 50ms}

~~Proc Test~~ ProcessBuilder : {30s ; 15s ; 7s ; 3s}

X Exe 1 : 30s {0.1748 ; 0.1748 ; 0.1745} ; 15s {0.3533 ; 0.3533 ; 0.3533} ≈ 0.3533

7s {0.7751 ; 0.7751 ; 0.7751} / 3s {1.0 ; 1.0 ; 1.0} ≈ 1

≈ 0.7751

O Exe 2 : Same as Exe 1 :