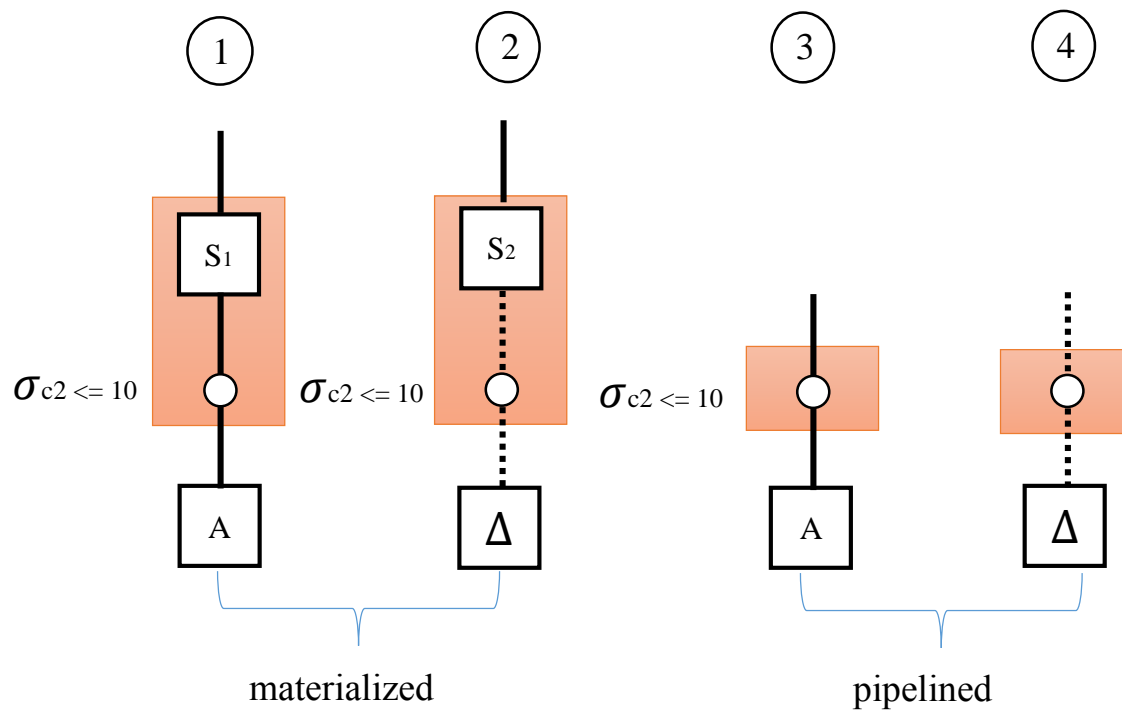


Types



Tables

PK	col1	col2
k1	x1	5
k3	x2	7
k4	x2	8
k5	x2	2

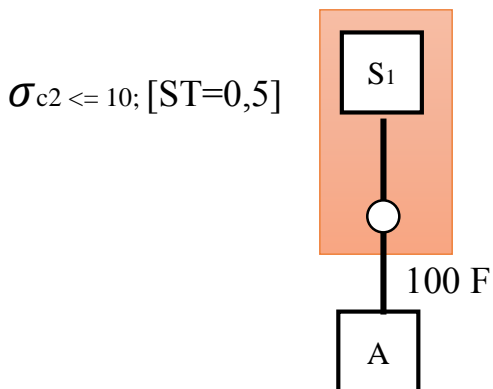
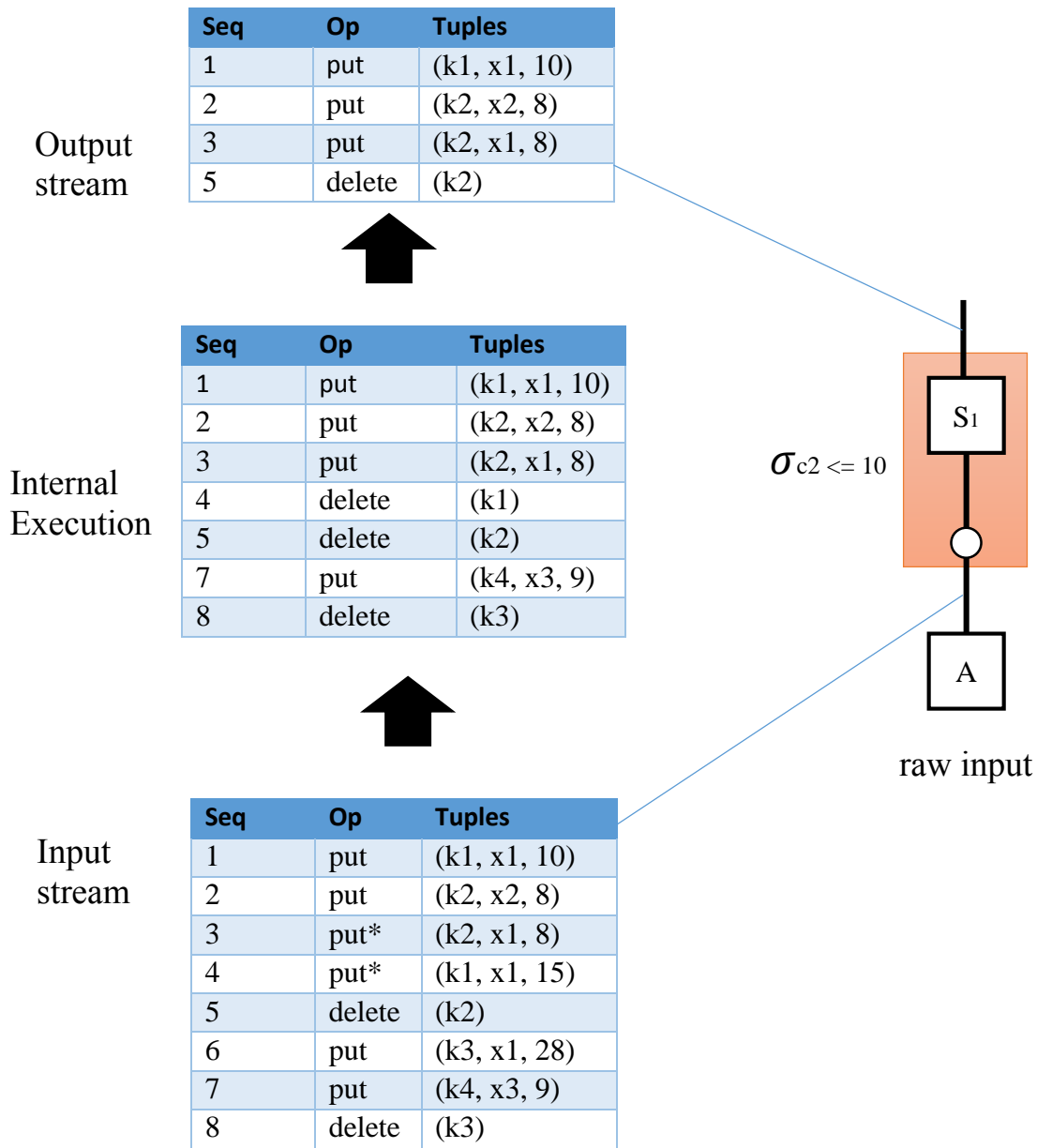
View table

$\sigma_{c2 \leq 10}$

PK	col1	col2
k1	x1	5
k2	x1	12
k3	x2	7
k4	x2	8
k5	x2	2
k6	x1	13

Base table

Type 1(materialized, raw)

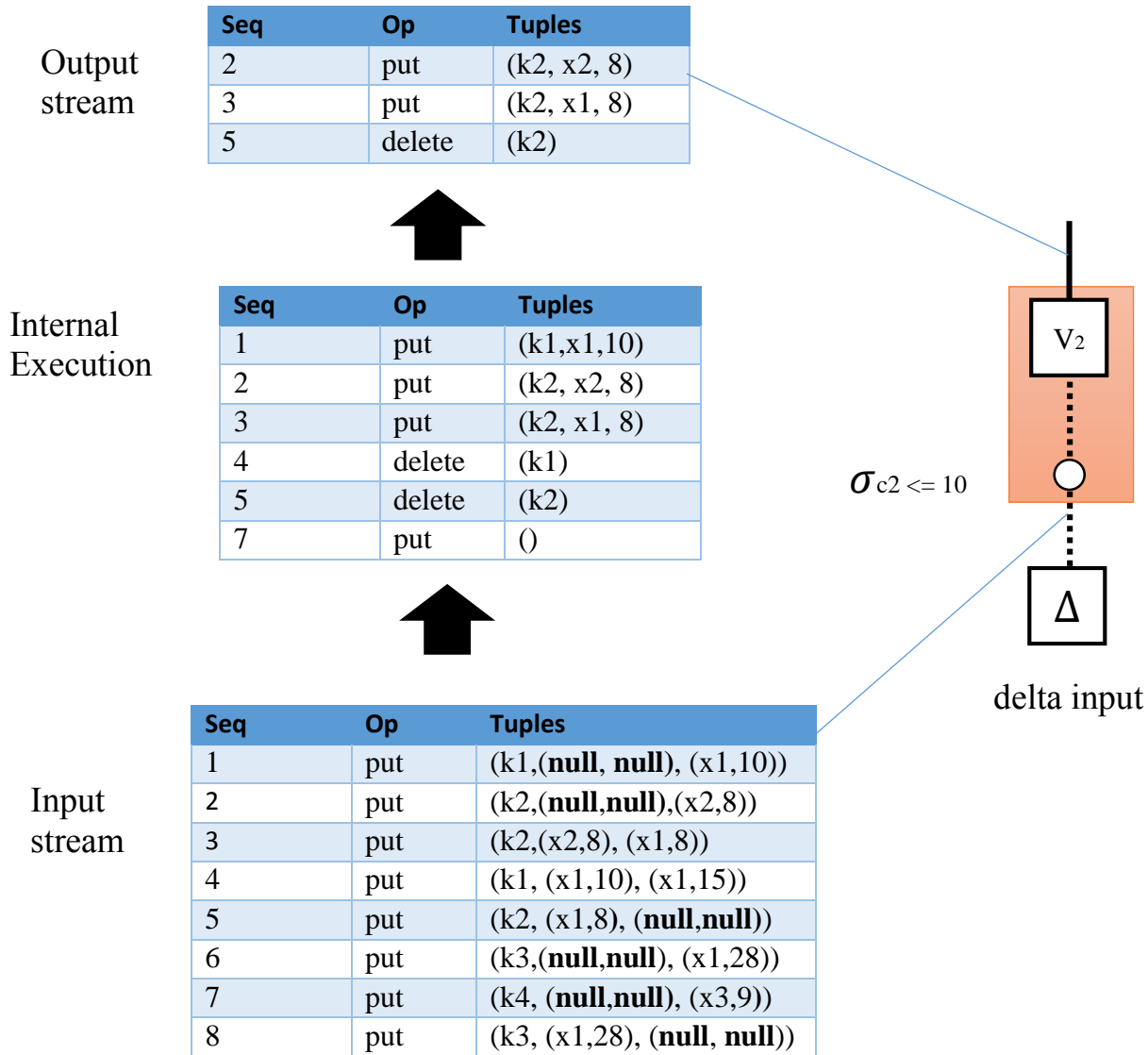


$$P = (\text{Insert} + \text{Update}) * ST$$

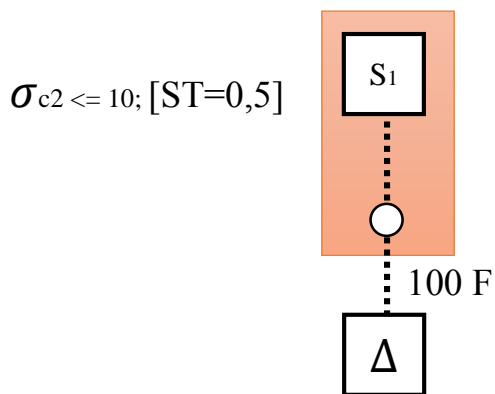
$$D = \text{Delete} + \text{Update} * (1 - ST)$$

$$\text{Cost} = P * \text{weight}(P) + D * \text{weight}(D)$$

Type 2(materialized, delta)



Cost diagram

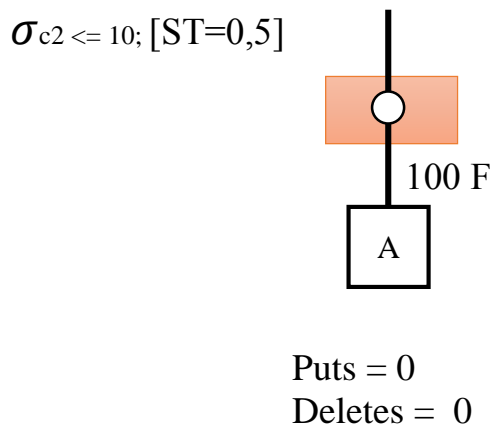
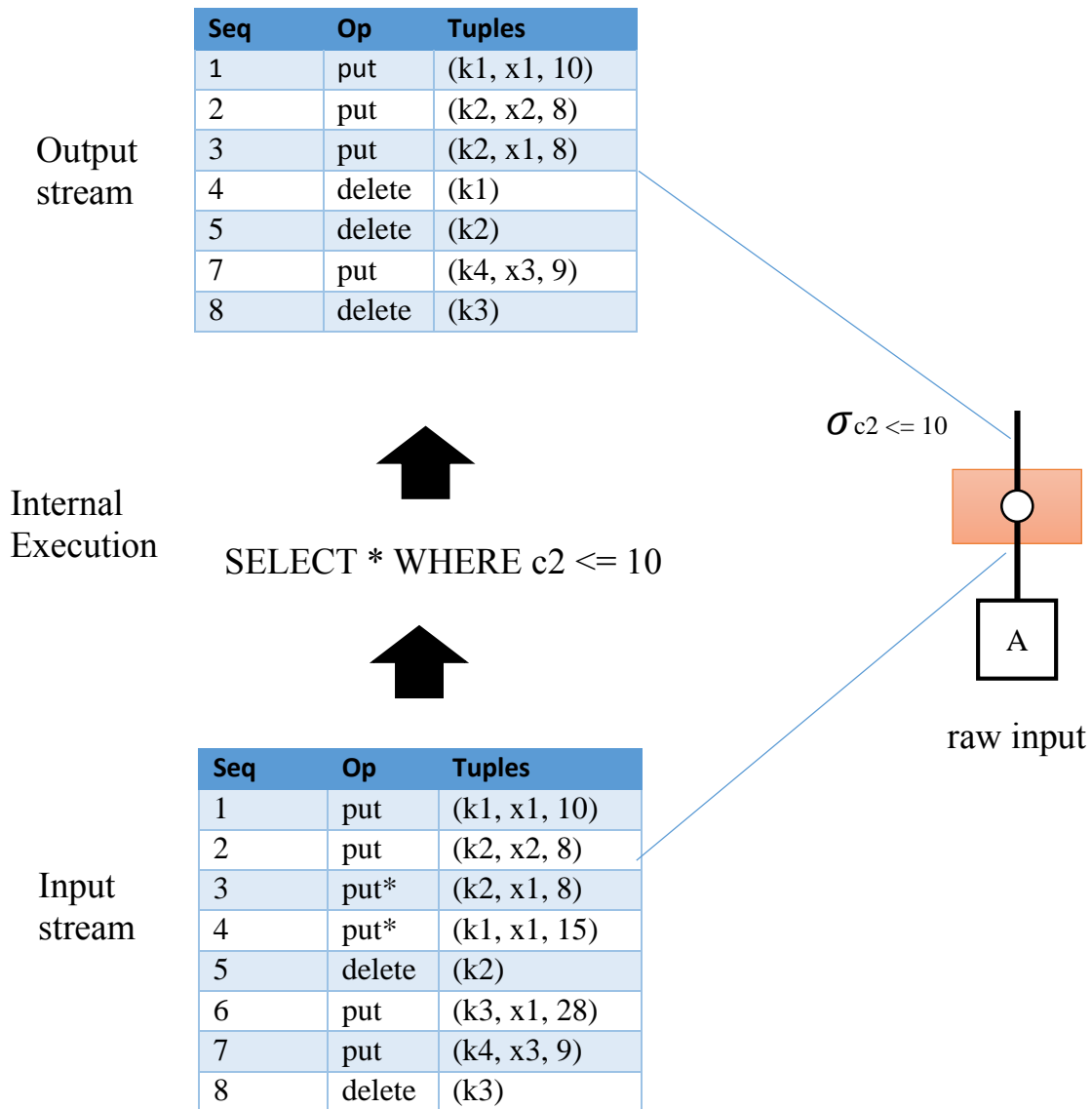


Seq	Op	Tuples
1	put	(k1, x1, 10)
2	put	(k2, x2, 8)
3	put*	(k2, x1, 8)
4	put*	(k1, x1, 15)
5	delete	(k2)
6	put	(k3, x1, 28)
7	put	(k4, x3, 9)
8	delete	(k3)

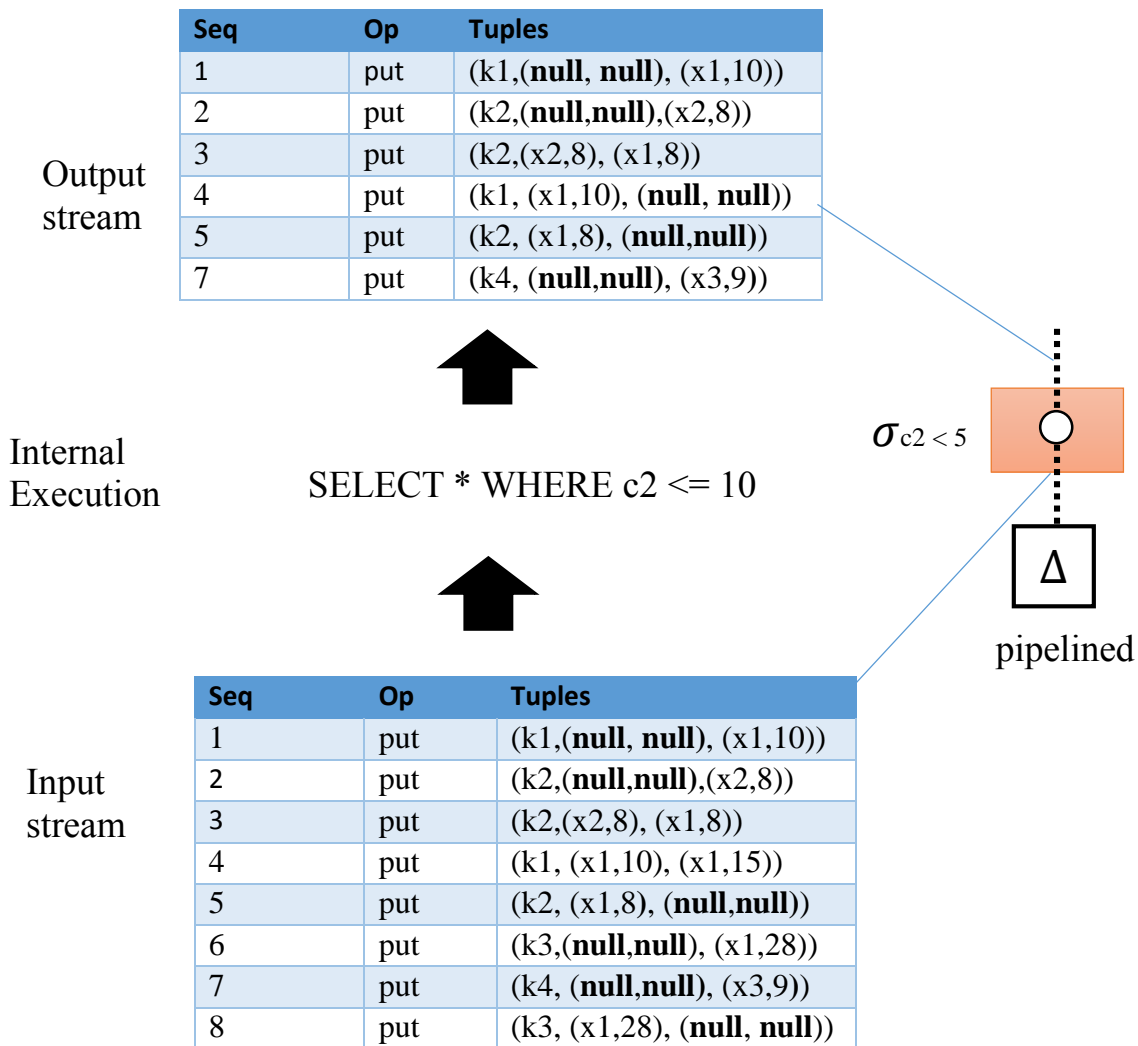
$$P = (\text{Insert} + \text{Update}) * ST$$

$$D = \text{Delete} * ST + \text{Update}(\text{DESELECT}) * (1 - ST)$$

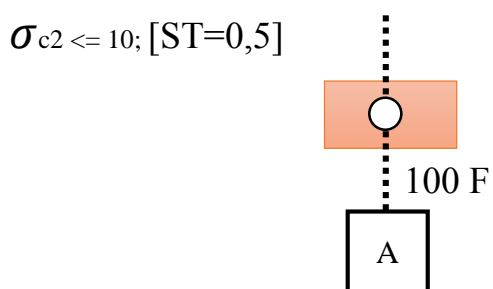
Type 3(pipelined, raw)



Type 4(pipelined, delta)

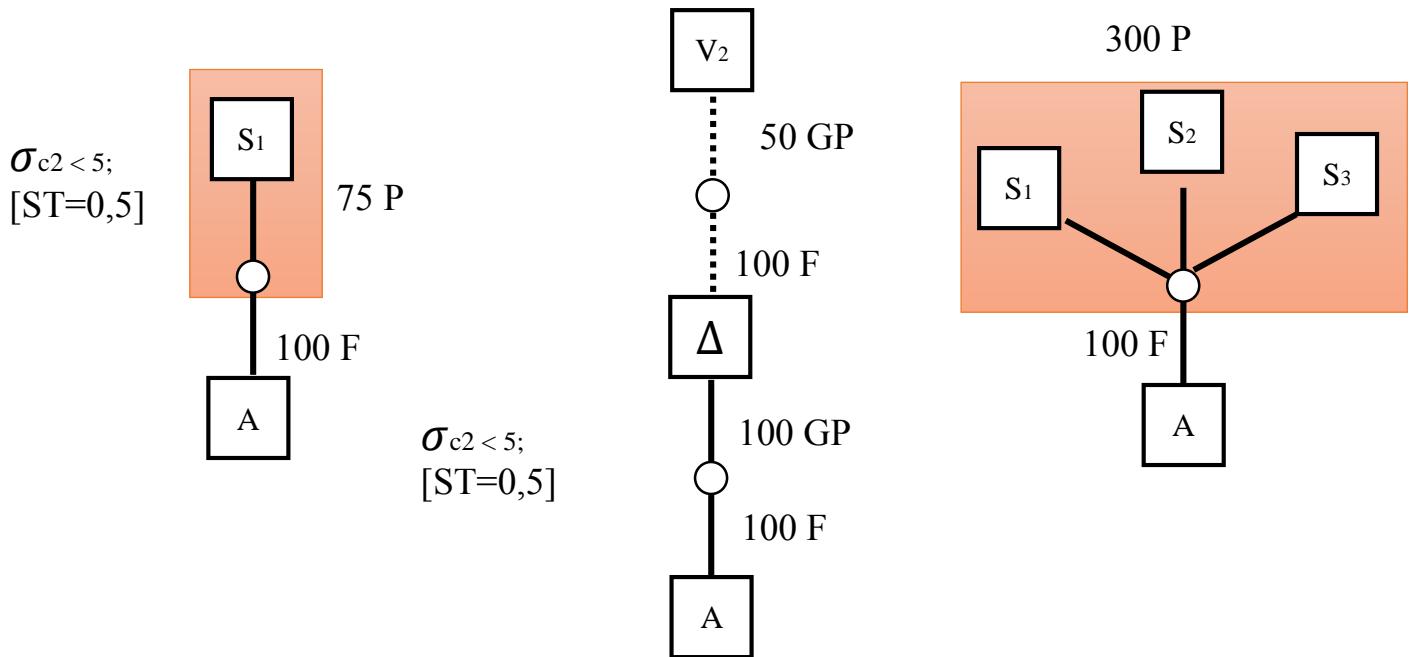


Cost diagram

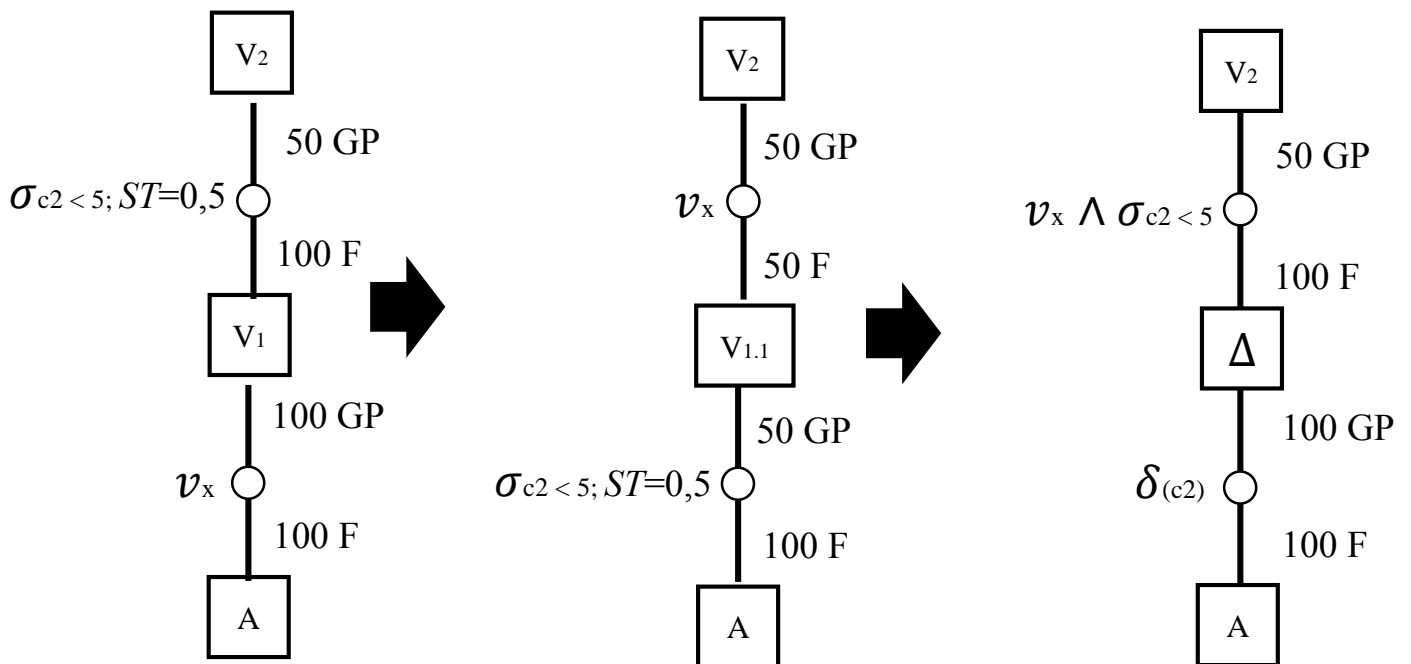


Puts = 0
Deletes = 0

Cost diagram



Selection – Reordering/Pipelining



Selection – Reordering/Pipelining

