

Basetable A

rk	c1	c2
k1	x1	20
k2	x1	30
k3	x2	10
k4	x2	35
k5	x3	80

Basetable B

rk	d1	d2
l1	x1	10
l2	x2	40
l3	x2	55
l4	x2	10
l5	x3	25

Delta A

rk	old	new
k1	$\emptyset$	(x1, 20)
k2	$\emptyset$	(x1, 30)
k3	(x2, 50)	(x2, 10)
k4	(x3, 15)	(x2, 35)
k5	(x3, 55)	(x3, 80)

Delta B

rk	old	new
f1	$\emptyset$	(x1, 10)
f2	$\emptyset$	(x2, 40)
f3	(x4, 50)	(x2, 55)
f4	(x3, 35)	(x2, 10)
f5	$\emptyset$	(x3, 25)

Sum A (group c<sub>1</sub>)

rk	csum
x1	50
x2	45
x3	80

Min A (group c<sub>1</sub>)

rk	cmin
x1	20
x2	10
x3	80

Join (on A.c<sub>1</sub> = B.d<sub>1</sub>)

rk	jk	A.c2	B.c2
k1_l1	x1	20	10
k2_l1	x1	30	10
k3_l2	x2	10	40
k3_l3	x2	10	55
k3_l4	x2	10	10
k4_l2	x2	35	40
k4_l3	x2	35	55
k4_l4	x2	35	10
k5_l5	x3	80	25

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rk	Delta A	Delta B
x1	(k1,20),(k2,30)	(l1,10)
x2	(k3,10),(k4,35)	(l2,40),(l3,55),(l4,10)
x3	(k5,80)	(l5,25)

Pre-Agg A (group c<sub>1</sub>)Pre-Agg B (group d<sub>1</sub>)Reverse join (on A.c<sub>1</sub> = B.d<sub>1</sub>)