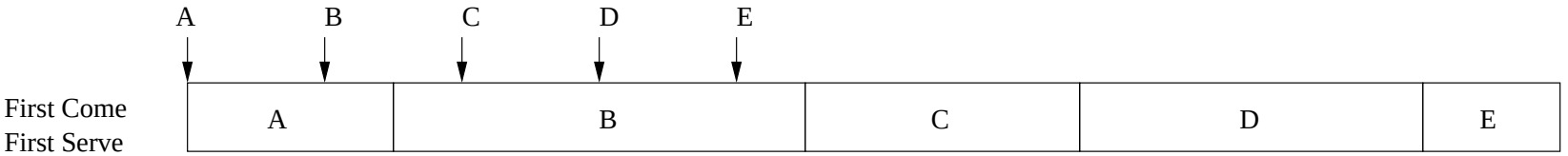
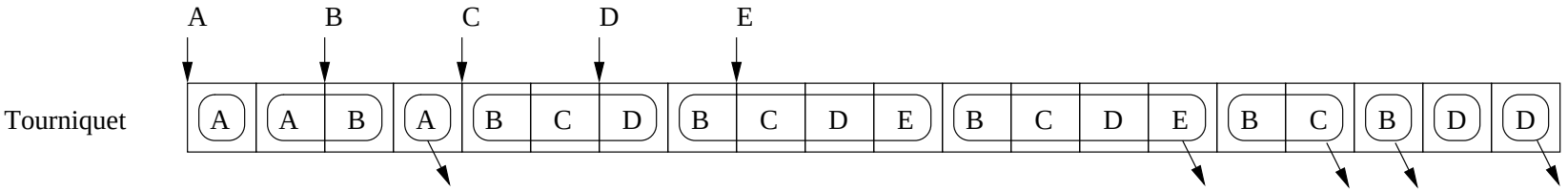
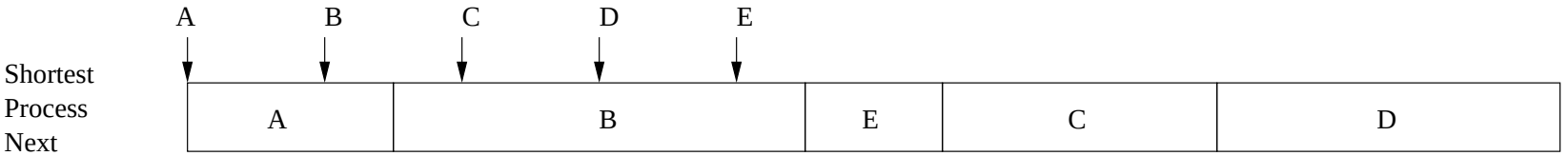


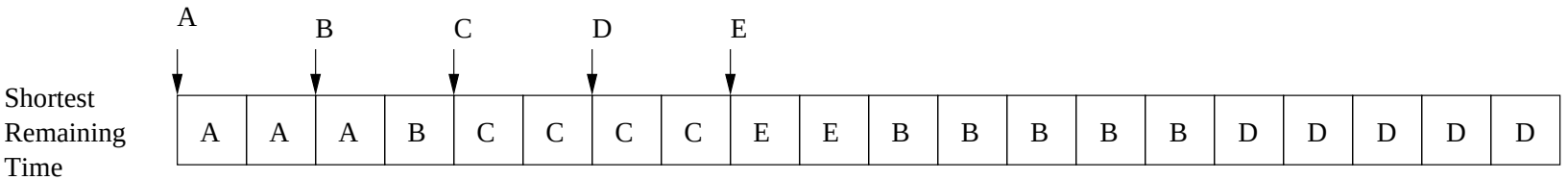


Représente un cycle

Dans le cycle, on exécute
dans l'ordre alphabétique de ceux PRESENTS dans le cycle

Lorsque un sort du cycle, on recommence le cycle à zéro!





A chaque pas de temps, on réévalue pour savoir lequel est le plus près de la fin

Si il y en a deux ou plus, on prend dans l'ordre alphabétique

Cours Système L3/S6 – Exemple de calcul d'ordonnancement Fair-Share-Schedulling

Au départ : $CPU_A(?) = 0$, $CPU_B(?) = 0$, $CPU_B(?) = 0$ et
$GCPU_A(?) = 0$, $GCPU_{B+C}(?) = 0$

Le processus ayant un $P_j(i)$ minimum est choisi.
Les divisions sont des divisions entières

1 i=0

$P_A(O) = Base_A + \frac{CPU_A(?)}{2} + \frac{GCPU_A(?)}{4*0.5} = 60 + \frac{0}{2} + \frac{0}{2} = 60$

$P_B(O) = Base_B + \frac{CPU_B(?)}{2} + \frac{GCPU_{B+C}(?)}{4*0.5} = 60 + \frac{0}{2} + \frac{0}{2} = 60$

$P_C(O) = Base_C + \frac{CPU_C(?)}{2} + \frac{GCPU_{B+C}(?)}{4*0.5} = 60 + \frac{0}{2} + \frac{0}{2} = 60$

Au départ, A, B et C ont des priorités identiques. Mais, A est choisi. $\Rightarrow U_A(0) = 60$ s.

$CPU_A(0) = \frac{U_A(O)}{2} + \frac{CPU_A(?)}{2} = \frac{60}{2} + \frac{0}{2} = 30$

$CPU_B(0) = \frac{U_B(O)}{2} + \frac{CPU_B(?)}{2} = \frac{0}{2} + \frac{0}{2} = 0$

$CPU_C(0) = \frac{U_C(O)}{2} + \frac{CPU_C(?)}{2} = \frac{0}{2} + \frac{0}{2} = 0$

$GCPU_A(0) = \frac{GU_A(0)}{2} + \frac{GCPU_A(?)}{2} = \frac{60}{2} + \frac{0}{2} = 30$

$GCPU_{B+C}(0) = \frac{GU_{B+C}(0)}{2} + \frac{GCPU_{B+C}(?)}{2} = \frac{0}{2} + \frac{0}{2} = 0$

2 i=1

$P_A(1) = Base_A + \frac{CPU_A(0)}{2} + \frac{GCPU_A(0)}{4*0.5} = 60 + \frac{30}{2} + \frac{30}{2} = 90$

$P_B(1) = Base_B + \frac{CPU_B(0)}{2} + \frac{GCPU_{B+C}(0)}{4*0.5} = 60 + \frac{0}{2} + \frac{0}{2} = 60$

$P_C(1) = Base_C + \frac{CPU_C(0)}{2} + \frac{GCPU_{B+C}(0)}{4*0.5} = 60 + \frac{0}{2} + \frac{0}{2} = 60$

Ici B et C ont des priorités identiques. Mais, B est choisi. $\Rightarrow U_B(1) = 60$ s.

$CPU_A(1) = \frac{U_A(1)}{2} + \frac{CPU_A(0)}{2} = \frac{0}{2} + \frac{30}{2} = 15$

$CPU_B(1) = \frac{U_B(1)}{2} + \frac{CPU_B(0)}{2} = \frac{60}{2} + \frac{0}{2} = 30$

$CPU_C(1) = \frac{U_C(1)}{2} + \frac{CPU_C(0)}{2} = \frac{0}{2} + \frac{0}{2} = 0$

$GCPU_A(1) = \frac{GU_A(1)}{2} + \frac{GCPU_A(0)}{2} = \frac{0}{2} + \frac{30}{2} = 15$

$GCPU_{B+C}(1) = \frac{GU_{B+C}(1)}{2} + \frac{GCPU_{B+C}(0)}{2} = \frac{60}{2} + \frac{0}{2} = 30$

3 i=2

$P_A(2) = Base_A + \frac{CPU_A(1)}{2} + \frac{GCPU_A(1)}{4*0.5} = 60 + \frac{15}{2} + \frac{15}{2} = 74$ (division entière)

$P_B(2) = Base_B + \frac{CPU_B(1)}{2} + \frac{GCPU_{B+C}(1)}{4*0.5} = 60 + \frac{30}{2} + \frac{30}{2} = 90$

$P_C(2) = Base_C + \frac{CPU_C(1)}{2} + \frac{GCPU_{B+C}(1)}{4*0.5} = 60 + \frac{0}{2} + \frac{30}{2} = 75$

A est choisi. $\Rightarrow U_A(2) = 60$ s.

$CPU_A(2) = \frac{U_A(2)}{2} + \frac{CPU_A(1)}{2} = \frac{60}{2} + \frac{15}{2} = 37$

$CPU_B(2) = \frac{U_B(2)}{2} + \frac{CPU_B(1)}{2} = \frac{0}{2} + \frac{30}{2} = 15$

$CPU_C(2) = \frac{U_C(2)}{2} + \frac{CPU_C(1)}{2} = \frac{0}{2} + \frac{0}{2} = 0$

$GCPU_A(2) = \frac{GU_A(2)}{2} + \frac{GCPU_A(1)}{2} = \frac{60}{2} + \frac{15}{2} = 37$

$GCPU_{B+C}(2) = \frac{GU_{B+C}(2)}{2} + \frac{GCPU_{B+C}(1)}{2} = \frac{0}{2} + \frac{30}{2} = 15$

4 i=3

$P_A(3) = Base_A + \frac{CPU_A(2)}{2} + \frac{GCPU_A(2)}{4*0.5} = 60 + \frac{37}{2} + \frac{37}{2} = 96$

$P_B(3) = Base_B + \frac{CPU_B(2)}{2} + \frac{GCPU_{B+C}(2)}{4*0.5} = 60 + \frac{15}{2} + \frac{15}{2} = 74$

$P_C(3) = Base_C + \frac{CPU_C(2)}{2} + \frac{GCPU_{B+C}(2)}{4*0.5} = 60 + \frac{0}{2} + \frac{15}{2} = 67$

C est choisi. $\Rightarrow U_C(3) = 60$ s.

$CPU_A(3) = \frac{U_A(3)}{2} + \frac{CPU_A(2)}{2} = \frac{0}{2} + \frac{37}{2} = 18$

$CPU_B(3) = \frac{U_B(3)}{2} + \frac{CPU_B(2)}{2} = \frac{0}{2} + \frac{15}{2} = 7$

$CPU_C(3) = \frac{U_C(3)}{2} + \frac{CPU_C(2)}{2} = \frac{60}{2} + \frac{0}{2} = 30$

$GCPU_A(3) = \frac{GU_A(3)}{2} + \frac{GCPU_A(2)}{2} = \frac{0}{2} + \frac{37}{2} = 18$

$GCPU_{B+C}(3) = \frac{GU_{B+C}(3)}{2} + \frac{GCPU_{B+C}(2)}{2} = \frac{60}{2} + \frac{15}{2} = 37$

5 i=4

$P_A(4) = Base_A + \frac{CPU_A(3)}{2} + \frac{GCPU_A(3)}{4*0.5} = 60 + \frac{18}{2} + \frac{18}{2} = 78$

$P_B(4) = Base_B + \frac{CPU_B(3)}{2} + \frac{GCPU_{B+C}(3)}{4*0.5} = 60 + \frac{7}{2} + \frac{37}{2} = 81$

$P_C(4) = Base_C + \frac{CPU_C(3)}{2} + \frac{GCPU_{B+C}(3)}{4*0.5} = 60 + \frac{30}{2} + \frac{37}{2} = 93$

A est choisi. $\Rightarrow U_A(4) = 60$ s.

$CPU_A(4) = \frac{U_A(4)}{2} + \frac{CPU_A(3)}{2} = \frac{60}{2} + \frac{18}{2} = 39$

$CPU_B(4) = \frac{U_B(4)}{2} + \frac{CPU_B(3)}{2} = \frac{0}{2} + \frac{7}{2} = 3$

$CPU_C(4) = \frac{U_C(4)}{2} + \frac{CPU_C(3)}{2} = \frac{0}{2} + \frac{30}{2} = 15$

$GCPU_A(4) = \frac{GU_A(4)}{2} + \frac{GCPU_A(3)}{2} = \frac{60}{2} + \frac{18}{2} = 39$

$GCPU_{B+C}(4) = \frac{GU_{B+C}(4)}{2} + \frac{GCPU_{B+C}(3)}{2} = \frac{0}{2} + \frac{37}{2} = 18$

6 i=5

$P_A(5) = Base_A + \frac{CPU_A(4)}{2} + \frac{GCPU_A(4)}{4*0.5} = 60 + \frac{39}{2} + \frac{39}{2} = 98$

$P_B(5) = Base_B + \frac{CPU_B(4)}{2} + \frac{GCPU_{B+C}(4)}{4*0.5} = 60 + \frac{3}{2} + \frac{18}{2} = 70$

$P_C(5) = Base_C + \frac{CPU_C(4)}{2} + \frac{GCPU_{B+C}(4)}{4*0.5} = 60 + \frac{15}{2} + \frac{18}{2} = 76$

B est choisi. $\Rightarrow U_A(5) = 60$ s.

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