Entrega de práctica Planificación

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Tabla de tiempos

Tarea	T	C	D	T_EEG	T_OJOS	T_PULSO	R
Pulso	333	14	30	-	-	11	27
Ojos	100	30	50 (70)	-	11	-	57
Risk	500	41	200	11	11	11	149
EEG	250	24	250	11	-	-	173
Show	1000	62	1000	32	11	11	233
T_INT	333	2	-	-	-	-	

Tabla de tiempos de bloqueo

Tarea	T_EEG	T_OJOS	T_PULSO	B_EEG	B_OJOS	B_PULSO	B_TOTAL
Pulso	-	-	11	0	0	11	11
Ojos	-	11	-	0	11	11	11
Risk	11	11	11	32	11	11	11
EEG	11	-	-	32	11	11	32
Show	32	-	-	0	0	0	0
Techos	**3**	**4**	**5**				

Comentarios sobre el resultado

Para tomar los tiempos de ejecución se han usado las trazas “Starting Notice” y “Finishing Notice” con solamente un carácter para evitar que introduzcan demasiado retraso.

En cuanto a la planificabilidad, como se puede ver en la tarea de Ojos, no es planificable puesto que se pasa en 7ms con respecto al tiempo máximo de la tarea, por lo que se ha relajado el deadline hasta los 70ms para que sea planificable no afectando mucho al funcionamiento.

Cálculo de Tiempos

Pulso

$$R^0_{Pulso} = C_{PULSO} + B_{PULSO} + C_{\text{int}} = 14 + 11 + 2 = 27$$

$$R^1_{pulso} = C_{pulso} + B_{pulso} + \left\lceil \frac{R_i}{T_{\text{int}}} \right\rceil * C_{\text{int}} = 14 + 11 + 2 = 27$$

$$R_{PULSO} = 27$$

Ojos

$$R^0_{Ojos} = C_{Ojos} + B_{Ojos} + C_{Pulso} + C_{\text{int}} = 30 + 11 + 14 + 2 = 57$$

$$R^1_{Ojos} = C_{Ojos} + B_{Ojos} + \left\lceil \frac{R_i}{T_{Pulso}} \right\rceil * C_{Pulso} + \left\lceil \frac{R_i}{T_{\text{int}}} \right\rceil * C_{\text{int}} = 30 + 11 + \left\lceil \frac{57}{333} \right\rceil * 14 + 2 = 57$$

$$R_{Ojos} = 57$$

Risk Control

$$R^0_{Risk} = C_{Risk} + B_{Risk} + C_{Ojos} + C_{Pulso} + C_{\text{int}} = 41 + 32 + 30 + 11 + 14 + 2 = 119$$

$$R^1_{Risk} = C_{Risk} + B_{Risk} + \left\lceil \frac{R_i}{T_{Ojos}} \right\rceil * C_{Ojos} + \left\lceil \frac{R_i}{T_{Pulso}} \right\rceil * C_{Pulso} + \left\lceil \frac{R_i}{T_{\text{int}}} \right\rceil * C_{\text{int}} =$$

$$= 41 + 32 + \left\lceil \frac{119}{100} \right\rceil * 30 + \left\lceil \frac{119}{333} \right\rceil * 14 + 2 = 41 + 32 + 60 + 14 + 2 = 149$$

$$R^2_{Risk} = C_{Risk} + B_{Risk} + \left\lceil \frac{R_i}{T_{Ojos}} \right\rceil * C_{Ojos} + \left\lceil \frac{R_i}{T_{Pulso}} \right\rceil * C_{Pulso} + \left\lceil \frac{R_i}{T_{\text{int}}} \right\rceil * C_{\text{int}} =$$

$$= 41 + 32 + \left\lceil \frac{149}{100} \right\rceil * 30 + \left\lceil \frac{149}{333} \right\rceil * 14 + 2 = 41 + 32 + 60 + 2 = 149$$

$$R_{Risk} = 149$$

EEG

$$R^0_{EEG} = C_{EEG} + B_{EEG} + C_{Risk} + C_{Ojos} + C_{Pulso} + C_{\text{int}} = 24 + 32 + 41 + 30 + 14 + 2 = 143$$

$$R^1_{EEG} = C_{EEG} + B_{EEG} + \left\lceil \frac{R_i}{T_{Risk}} \right\rceil * C_{Risk} + \left\lceil \frac{R_i}{T_{Ojos}} \right\rceil * C_{Ojos} + \left\lceil \frac{R_i}{T_{Pulso}} \right\rceil * C_{Pulso} + \left\lceil \frac{R_i}{T_{\text{int}}} \right\rceil * C_{\text{int}} =$$

$$= 24 + 32 + \left\lceil \frac{143}{500} \right\rceil * 41 + \left\lceil \frac{143}{100} \right\rceil * 30 + \left\lceil \frac{143}{333} \right\rceil * 14 + 2 = 24 + 32 + 41 + 60 + 14 + 2 = 173$$

$$R^2_{EEG} = C_{EEG} + B_{EEG} + \left\lceil \frac{R_i}{T_{Risk}} \right\rceil * C_{Risk} + \left\lceil \frac{R_i}{T_{Ojos}} \right\rceil * C_{Ojos} + \left\lceil \frac{R_i}{T_{Pulso}} \right\rceil * C_{Pulso} + \left\lceil \frac{R_i}{T_{\text{int}}} \right\rceil * C_{\text{int}} =$$

$$= 24 + 32 + \left\lceil \frac{173}{500} \right\rceil * 41 + \left\lceil \frac{173}{100} \right\rceil * 30 + \left\lceil \frac{173}{333} \right\rceil * 14 + 2 = 24 + 32 + 41 + 60 + 14 + 2 = 173$$

$$R_{EEG} = 173$$

Show Info

$$R^0_{Show} = C_{Show} + B_{Show} + C_{EEG} + C_{Risk} + C_{Ojos} + C_{Pulso} + C_{\text{int}} = 62 + 24 + 41 + 30 + 14 + 2 = 173$$

$$R^1_{Show} = C_{Show} + B_{Show} + \left\lceil \frac{Ri}{T_{EEG}} \right\rceil * C_{EEG} + \left\lceil \frac{R_i}{T_{Risk}} \right\rceil * C_{Risk} + \left\lceil \frac{R_i}{T_{Ojos}} \right\rceil * C_{Ojos} + \left\lceil \frac{R_i}{T_{pulso}} \right\rceil * C_{Pulso} + \left\lceil \frac{R_i}{T_{\text{int}}} \right\rceil * C_{\text{int}} =$$

$$= 62 + 0 + \left\lceil \frac{173}{250} \right\rceil * 24 + \left\lceil \frac{173}{500} \right\rceil * 41 + \left\lceil \frac{173}{100} \right\rceil * 30 + \left\lceil \frac{173}{333} \right\rceil * 14 + 2 = 62 + 24 + 41 + 60 + 14 + 2 = 203$$

$$R^2_{Show} = C_{Show} + B_{Show} + \left\lceil \frac{Ri}{T_{EEG}} \right\rceil * C_{EEG} + \left\lceil \frac{R_i}{T_{Risk}} \right\rceil * C_{Risk} + \left\lceil \frac{R_i}{T_{Ojos}} \right\rceil * C_{Ojos} + \left\lceil \frac{R_i}{T_{pulso}} \right\rceil * C_{Pulso} + \left\lceil \frac{R_i}{T_{\text{int}}} \right\rceil * C_{\text{int}} =$$

$$= 62 + 0 + \left\lceil \frac{203}{250} \right\rceil * 24 + \left\lceil \frac{203}{500} \right\rceil * 41 + \left\lceil \frac{203}{100} \right\rceil * 30 + \left\lceil \frac{203}{333} \right\rceil * 14 + 2 = 62 + 0 + 24 + 41 + 90 + 14 + 2 = 233$$

$$R_{Show} = 233$$