RMS with Resources
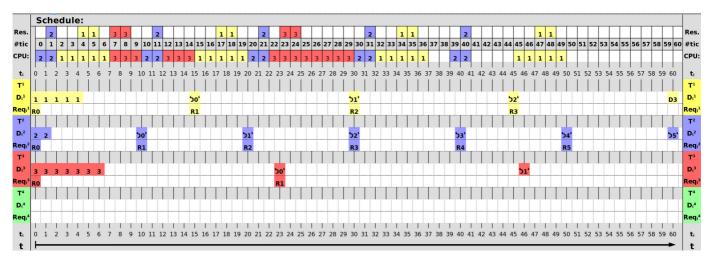
- **Schedulability test:** $U \leq n \cdot (2^{\frac{1}{n}} - 1)$ where n is number of periodic tasks
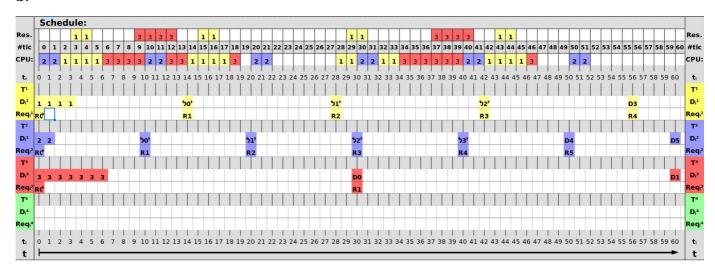- **Load of Tasks:** $U_i = \frac{e_i}{D_i}$
- **System load:** $U = \sum_{i=1}^{n} U_i = \sum_{i=1}^{n} \frac{e_i}{D_i}$

a.

Schedule: (task timing diagram for T¹, T², T³, T⁴ with resources R0–R5)

b.

Schedule: (task timing diagram for T¹, T², T³, T⁴ with resources R0–R5)

- **System load:** $\frac{4}{14} + \frac{2}{10} + \frac{7}{30} = 0,71$
- **Schedulability test:** $3 \cdot (2^{\frac{1}{3}} - 1) = 0,78$

$0,71 \leq 0,78 \rightarrow$ feasable