

Input format RACP/max

| | | | | | | | | |
|---------|-------|-----------|-------------|--------------|-------------|----------------------|---------|--------------------------|
| n | K | 0 | 0 | <i>dummy</i> | | | | |
| 0 | 1 | s_0 | j_1^0 | \dots | $j_{s_0}^0$ | $[\delta_{0,j_1^0}]$ | \dots | $[\delta_{0,j_{s_0}^0}]$ |
| 1 | 1 | s_1 | j_1^1 | \dots | $j_{s_1}^1$ | $[\delta_{1,j_1^1}]$ | \dots | $[\delta_{1,j_{s_1}^1}]$ |
| \dots | | | | | | | | |
| n | 1 | s_n | j_1^n | \dots | $j_{s_n}^n$ | $[\delta_{n,j_1^n}]$ | \dots | $[\delta_{n,j_{s_n}^n}]$ |
| $n+1$ | 1 | 0 | | | | | | |
| 0 | 1 | p_0 | r_{01} | r_{02} | \dots | r_{0K} | | |
| 1 | 1 | p_1 | r_{11} | r_{12} | \dots | r_{1K} | | |
| \dots | | | | | | | | |
| n | 1 | p_n | r_{n1} | r_{n2} | \dots | r_{nK} | | |
| $n+1$ | 1 | p_{n+1} | $r_{n+1,1}$ | $r_{n+1,2}$ | \dots | $r_{n+1,K}$ | | |
| c_1 | c_2 | \dots | c_K | | | | | |
| Y_1 | Y_2 | \dots | Y_K | | | | | |

Symbols

| symbol | meaning |
|--------------------|---|
| n | number of real activities |
| K | number of renewable resources |
| s_i | number of direct successors of node i in project network |
| j_s^i | s -th successor of node i in project network |
| δ_{i,j_s^i} | weight of arc $\langle i, j_s^i \rangle$ |
| p_i | processing time of activity i |
| r_{ik} | resource requirement of activity i on resource k |
| c_k | cost for providing one unit of resource $k \in R$ |
| Y_k | Utilization threshold of resource k (not relevant for RACP) |