Input format

n	ρ	0	0					
0	1	s_0	j_1^0	$\cdots$	$j_{s_0}^0$	$[\delta_{0,j_1^0}]$	$\cdots$	$[\delta_{0,j_{s_0}^0}]$
1	1	s_1	j_1^1	$\cdots$	$j_{s_1}^1$	$[\delta_{1,j_1^1}]$	$\cdots$	$[\delta_{1,j_{s_1}^1}]$
$\cdots$								
n	1	s_n	j_1^n	$\cdots$	$j_{s_n}^n$	$[\delta_{n,j_1^n}]$	$\cdots$	$[\delta_{n,j_{s_n}^n}]$
$n+1$	1	s_{n+1}						
0	1	p_0	r_{01}	$\cdots$	$r_{0\rho}$			
1	1	p_1	r_{11}	$\cdots$	$r_{1\rho}$			
$\cdots$								
n	1	p_n	r_{n1}	$\cdots$	$r_{n\rho}$			
$n+1$	1	p_{n+1}	$r_{n+1,1}$	$\cdots$	$r_{n+1,\rho}$			
R_1	$\cdots$	R_ρ						
1	I_1	$[\mu_1^1, \sigma_1^1]$	$\cdots$	$[\mu_{I_1}^1, \sigma_{I_1}^1]$				
2	I_2	$[\mu_1^2, \sigma_1^2]$	$\cdots$	$[\mu_{I_2}^2, \sigma_{I_2}^2]$				
$\cdots$								
ρ	I_ρ	$[\mu_1^\rho, \sigma_1^\rho]$	$\cdots$	$[\mu_{I_\rho}^\rho, \sigma_{I_\rho}^\rho]$				

Symbols

Symbol	Denotes
n	Number of real activities
ρ	Number of partially 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 (i, j_s^i)
p_i	Duration of activity i
r_{ik}	Demand of resource k by activity i per period
R_k	Capacity of resource k
Π_k	Set of periods resource k is available ($\Pi_k = \bigcup_{l=1}^{I_k} [\mu_l^k + 1, \sigma_l^k] \cap \mathbb{Z}$)
I_k	Number of components in Π_k
μ_l^k	Start time of the first period in the l-th component of Π_k
σ_l^k	End time of the last period in the l-th component of Π_k