

DETERMINATION OF FLOATS

BEFORE STARTING TO DETERMINE FLOATS TWO MORE QUANTITIES ARE DEFINED:

LATEST START TIME OF ACTIVITY i, j , $LS_{ij} = LC_j - D_{ij}$

EARLIEST COMPLETION TIME OF " i, j , $EC_{ij} = ES_i + D_{ij}$

TOTAL FLOAT, TF_{ij} : THIS IS THE DIFFERENCE BETWEEN THE TOTAL TIME AVAILABLE FOR DOING AN ACTIVITY ($= LC_j - ES_i$) AND ITS DURATION, D_{ij} .

$$TF_{ij} = LC_j - ES_i - D_{ij} = LC_j - EC_{ij} = LS_{ij} - ES_i$$

IF ONE ASSUMES THAT ALL ACTIVITY STARTS AT THE EARLIEST POSSIBLE TIME THEN THE EXCESS TIME AVAILABLE FOR COMPLETING AN ACTIVITY (i, j) IS CALLED

FREE FLOAT, $FF_{ij} = (ES_j - ES_i) - D_{ij}$

THE INFORMATION ON FLOATS CAN BE USED TO DETERMINE CRITICAL PATHS AND ALSO GAIN INFORMATION ON HOW MUCH PLAY IS ALLOWABLE FOR THE NON-CRITICAL ACTIVITIES. THIS PLAY IS EXPLOITED TO DO RESOURCE LEVELLING, LATER ON.

FLOAT CALCULATIONS

ACTIVITY (i, j)	DURATION (D _{ij})	□ ES _i	EC _{ij}	LS _{ij}	△ LC _j	TF _{ij}	TF _{ij}
01	2	0	2	2	4	0	2
02	3	0	3	0	3	0	0
13	2	2	4	4	6	2	2
23	3	3	6	3	6	0	0
24	2	3	5	4	6	1	1
34	0	6	6	6	6	0	0
35	3	6	9	10	13	4	4
36	2	6	8	17	19	11	11
45	7	6	13	6	13	0	0
46	5	6	11	14	19	8	8
56	6	13	19	13	19	0	0

$TF_{ij} = 0$
 IMPLIES
 i, j IS
 A CRITICAL
 ACTIVITY.

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