

Fearnsides and Associates

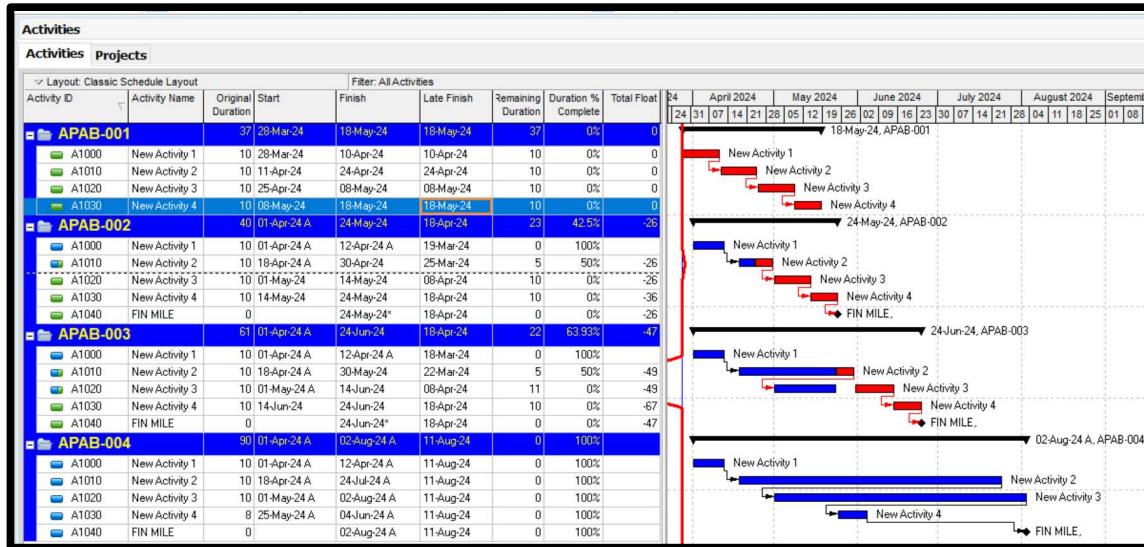
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Date: 28 March 2024

Subject: SIMPLE EXAMPLE OF HOW TO CALCULATE THE AS_PLANNED V AS_BUILT
ACTUAL CRITICAL PATH

Below is a screen shot of a very simple set of programme updates progress from the Baseline
APAB -001



SIMPLE AS-PLANNED V AS-BUILT CALCULATION TO DERIVE THE ACTUAL CRITICAL PATH

If you look at programming in reverse. At each update relate the Finish Date at each update to the planned late finish of the relative baseline. Take the Finish Date at the update (remember it is factual, as % complete calculation in P6 is $((\text{Original Duration} - \text{Remaining Duration}) / \text{Original Duration}) \times 100 = \text{The Duration \% complete}$) from the Planned Late Finish of the relative baseline.

You will then get a delta. If the delta is positive, it has float and is not in delay. If the delta is negative, it is in delay relative to the late planned date of the same activity on the relative baseline.

Do the above to every updated activity that has started and not finished or has finished. Sort the deltas smallest to least small. The activity at the top (with the most negative delta) will be the most critical activity at the relative update date compared to the same activity on the relative baseline.

Do the above to every update and the actual (as-built) CP will reveal itself. It is that simple.

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The as-built CP is based on as-built fact, the dynamic forecast CP is based on a theoretical planned intent and is not fact.

Of course, if intent changes, then the base must also change.

CALCULATION SHEET

PROJECT NAMES AND PROJECT DATA

PROJECTS			
Project Name	Total Activities	Project ID	Data Date
APAB-001	4	APAB-01	28-Mar-24
APAB-002	5	APAB-02	24-Apr-24
APAB-003	5	APAB-03	24-May-24
APAB-004	5	APAB-04	11-Aug-24

PROJECT BASELINE AND PROJECT UPDATE PROGRESS DATA SHEET

Activity ID	Activity Name	Original Duration	Start	Finish	Late Finish	Remaining Duration	Duration % Complete	Total Float
APAB-001								
A1000	New Activity 1	10	28-Mar-24	10-Apr-24	10-Apr-24	10	0%	0
A1010	New Activity 2	10	11-Apr-24	24-Apr-24	24-Apr-24	10	0%	0
A1020	New Activity 3	10	25-Apr-24	8-May-24	8-May-24	10	0%	0
A1030	New Activity 4	10	8-May-24	18-May-24	18-May-24	10	0%	0
APAB-002								
A1000	New Activity 1	10	01-Apr-24 A	12-Apr-24 A	19-Mar-24	0	100%	
A1010	New Activity 2	10	18-Apr-24 A	30-Apr-24	25-Mar-24	5	50%	-26
A1020	New Activity 3	10	1-May-24	14-May-24	8-Apr-24	10	0%	-26
A1030	New Activity 4	10	14-May-24	24-May-24	18-Apr-24	10	0%	-36
A1040	FIN MILE	0		24-May-24*	18-Apr-24	0	0%	-26
APAB-003								
A1000	New Activity 1	10	01-Apr-24 A	12-Apr-24 A	18-Mar-24	0	100%	
A1010	New Activity 2	10	18-Apr-24 A	30-May-24	22-Mar-24	5	50%	-49
A1020	New Activity 3	10	01-May-24 A	14-Jun-24	8-Apr-24	11	0%	-49
A1030	New Activity 4	10	14-Jun-24	24-Jun-24	18-Apr-24	10	0%	-67
A1040	FIN MILE	0		24-Jun-24*	18-Apr-24	0	0%	-47
APAB-004								
A1000	New Activity 1	10	01-Apr-24 A	12-Apr-24 A	11-Aug-24	0	100%	
A1010	New Activity 2	10	18-Apr-24 A	24-Jul-24 A	11-Aug-24	0	100%	
A1020	New Activity 3	10	01-May-24 A	02-Aug-24 A	11-Aug-24	0	100%	
A1030	New Activity 4	8	25-May-24 A	04-Jun-24 A	11-Aug-24	0	100%	
A1040	FIN MILE	0		02-Aug-24 A	11-Aug-24	0	100%	

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AS-PLANNED V AS-BUILT CALCULATION SHEET

AS-PLANNED V AS-BUILT (USING BASELINE LATE FINISH - UPDATE FINISH) CRITICAL DELTA CALCULATION TO DERIVE ABAP CRITICAL PATH						
BASELINE	APAB-001		DD	28-Mar-24		
Activity ID	Activity Name			Finish Date	Late Finish Date	
A1000	New Activity 1			10-Apr-24	10-Apr-24	0
A1010	New Activity 2			24-Apr-24	24-Apr-24	0
A1020	New Activity 3			8-May-24	8-May-24	0
A1030	New Activity 4			18-May-24	18-May-24	0
UPDATE	APAB-002		DD	24-Apr-24		
Activity ID	Activity Name			UPDATE Finish Date	BASELINE Late Finish Date	DELTA = BASELINE LATE FINISH DATE - UPDATE FINISH DATE
A1000	New Activity 1			12-Apr-24	10-Apr-24	-2
A1010	New Activity 2			30-Apr-24	24-Apr-24	-6
A1020	New Activity 3			14-May-24	8-May-24	-6
A1030	New Activity 4			24-May-24	18-May-24	-6
UPDATE	APAB-003		DD	24-May-24		
Activity ID	Activity Name			UPDATE Finish Date	BASELINE Late Finish Date	DELTA = BASELINE LATE FINISH DATE - UPDATE FINISH DATE
A1000	New Activity 1			12-Apr-24	10-Apr-24	-2
A1010	New Activity 2			30-May-24	24-Apr-24	-36
A1020	New Activity 3			14-Jun-24	8-May-24	-37
A1030	New Activity 4			24-Jun-24	18-May-24	-37
UPDATE	APAB-004		DD	11-Aug-24		
Activity ID	Activity Name			UPDATE Finish Date	BASELINE Late Finish Date	DELTA = BASELINE LATE FINISH DATE - UPDATE FINISH DATE
A1000	New Activity 1			12-Apr-24	10-Apr-24	-2
A1010	New Activity 2			24-Jul-24	24-Apr-24	-91
A1020	New Activity 3			2-Aug-24	8-May-24	-86
A1030	New Activity 4			4-Jun-24	18-May-24	-17

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AS-PLANNED V AS-BUILT CALCULATION SHEET WITH THE SORT ON THE DELTA COLUMN - SMALLEST TO LEAST SMALL

AS-PLANNED V AS-BUILT CRITICAL PATH WITH SORTED CRITICAL DELTA COLUMN						
BASELINE	APAB-001		DD	28-Mar-24		
Activity ID	Activity Name			Finish Date	Late Finish Date	
						DELTA = BASELINE LATE FINISH DATE - UPDATE FINISH DATE
A1000	New Activity 1			10-Apr-24	10-Apr-24	0
A1010	New Activity 2			24-Apr-24	24-Apr-24	0
A1020	New Activity 3			8-May-24	8-May-24	0
A1030	New Activity 4			18-May-24	18-May-24	0
UPDATE	APAB-002		DD	24-Apr-24		
Activity ID	Activity Name			UPDATE Finish Date	BASELINE Late Finish Date	
						DELTA = BASELINE LATE FINISH DATE - UPDATE FINISH DATE
A1010	New Activity 2			30-Apr-24	24-Apr-24	-6
A1020	New Activity 3			14-May-24	8-May-24	-6
A1030	New Activity 4			24-May-24	18-May-24	-6
A1000	New Activity 1			12-Apr-24	10-Apr-24	-2
UPDATE	APAB-003		DD	24-May-24		
Activity ID	Activity Name			UPDATE Finish Date	BASELINE Late Finish Date	
						DELTA = BASELINE LATE FINISH DATE - UPDATE FINISH DATE
A1020	New Activity 3			14-Jun-24	8-May-24	-37
A1030	New Activity 4			24-Jun-24	18-May-24	-37
A1010	New Activity 2			30-May-24	24-Apr-24	-36
A1000	New Activity 1			12-Apr-24	10-Apr-24	-2
UPDATE	APAB-004		DD	11-Aug-24		
Activity ID	Activity Name	Column1	Column2	UPDATE Finish Date	BASELINE Late Finish Date	Column3
						Column4
						DELTA = BASELINE LATE FINISH DATE - UPDATE FINISH DATE
A1010	New Activity 2			24-Jul-24	24-Apr-24	-91
A1020	New Activity 3			2-Aug-24	8-May-24	-86
A1030	New Activity 4			4-Jun-24	18-May-24	-17
A1000	New Activity 1			12-Apr-24	10-Apr-24	-2

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SIMPLE AS-BUILT ACTUAL CRITICAL PATH

