

SSI Tools Test Method for DECM 06A401a

SSI Tools follows the DECM “constraint method” as follows:

Step 1, Inspect the tasks marked as critical per Microsoft Project's critical flag or your own flag field.

Step 2, Add a constraint date, which is prior to the end point's current date or baseline date (whichever produces negative float). Tasks with negative float should be the same as the tasks marked as critical from step 1.

Setup Instructions using SSI *DECM Audits* form

Identify dependencies and avoiding using the Hard Constraints of Must Start or Finish on and Start or Finish no later than.

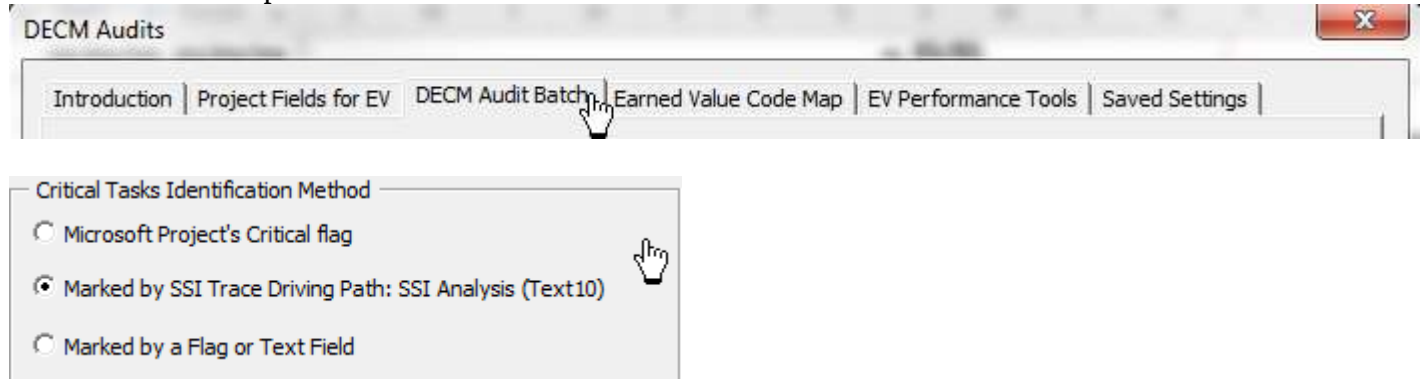
Avoid these pre-existing conditions that may cause failure regardless of the integrity of a project’s task dependencies and use of constraint dates:

- Use of tasks with elapsed durations
- Projects with progress posted out of sequence
- 24-hour calendars or tasks with different work day / non-work day or work schedule calendars
- Unsupported Deadline dates

Select an option below ***Critical Tasks Identification Method*** on the tab named ***DECM Audit Batch***

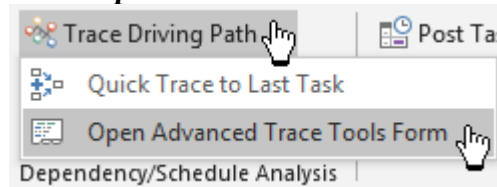
- Select ***Microsoft Project’s Critical flag*** to use the field in Microsoft Project name “Critical” (a Yes/No data field) to mark critical tasks.
- Select ***Marked by SSI Trace Driving Path*** to use the text or flag field used by SSI Tools to mark the predecessors of a selected task or milestone having zero days of driving slack.
- Select ***Marked by a Flag or Text Field*** if you have explicitly identified your critical path using your own method

Critical Path Test Options on DECM Audit Batch tab of DECM Audits form

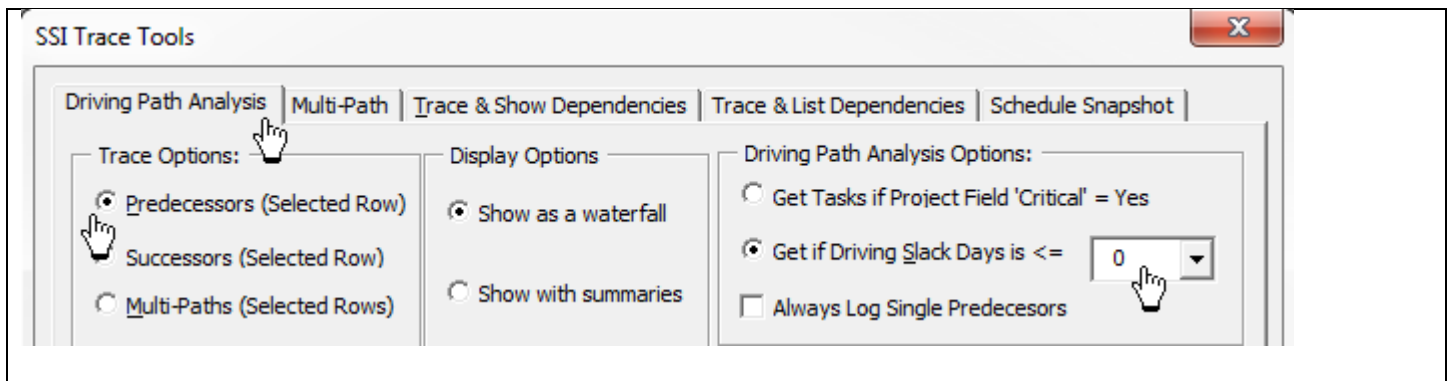


The screenshot shows the 'DECM Audits' form with the 'DECM Audit Batch' tab selected. The 'Critical Tasks Identification Method' section has three radio button options: 'Microsoft Project's Critical flag', 'Marked by SSI Trace Driving Path: SSI Analysis (Text10)' (which is selected), and 'Marked by a Flag or Text Field'. A hand cursor is pointing at the selected option.

When using ***Marked by SSI Trace Driving Path***, Trace the Driving path to a selected task or milestone using ***Trace Options*** = Predecessors and ***Driving Path Analysis Options*** = Get if Driving Slack Days ≤ 0



The screenshot shows the 'Trace Driving Path' tool. It has a 'Trace Driving Path' button and a 'Post Task' button. Below these are two options: 'Quick Trace to Last Task' and 'Open Advanced Trace Tools Form' (which is selected). A hand cursor is pointing at the 'Open Advanced Trace Tools Form' button. The bottom of the tool shows 'Dependency/Schedule Analysis'.



5. Attribute: 06A4: Program milestones, contractual events, program decision points and external dependencies are logically linked within the network schedule/IMS to support critical path analysis.

6. Test Step: Does the schedule tool produce a critical path that represents the longest total duration with the least amount of total float?

7. Test Metric: X = Count of tasks/activities & milestones on the constraint method critical path that are not on the contractor's critical path

8. Metric Threshold: X = 0

9. UN/CEFACT Required DEI(s)

10. Data Elements Required:

11 Integrated Master Schedule

11P Constraint Method Critical Path Activities

12 Program Critical Path

12A Program Critical Path Activities

11. Assumptions:

1. Contractor to provide activity/milestone to be used for constraint method critical path test

2. The constraint method applies a hard constraint to a selected end point to a date earlier than the baseline date of that end point, which generates negative total float and enables the identification of the critical path.

SSI Report

SSI Report shows the following headers referring to the DCMA EVMS Test Metric Specification

- Metric ID – Block 2 **Unique Test Metric ID**
- Name – Block 6 **Test Step**
- Metric Threshold – Block 8 **Metric Threshold**
- Numerator (X) – Block 8 **Metric Threshold X Value**
- Denominator (Y) – Block 8 **Metric Threshold Y Value**
- Score – Block 8 **Metric Threshold X/Y Value**
- Pass/Fail – Block 8 **Metric Threshold X/Y Pass/Fail determination**
- Metric Spec Link – Link to the **EVMS Test Metric Specification**
- SSI Test Link – Link to SSI Test method and description (this document)

SSI Report shows the following Details:

Critical Path Marked In Schedule – these are the tasks marked as critical in the project

Critical Path Found Using DECM: 06A401a 'Constraint Method' – these are the tasks with negative float after the “Constraint Method” is applied.

If the two lists of tasks contain different tasks, the result is scored as “Fail”

Report Example

A	B	C	D	E	F	G	H	I
Metric ID	Name	Metric Threshold	Numerator (X)	Denominator (Y)	Score	Pass/Fail	Metric Spec Link	SSI Test Link
06A401a	Does the schedule tool produce a critical path that represents the longest total duration with the least amount of total float?	0%	0	0	0%	Fail	DECM Spec	SSI Spec

Results on the tab named “CriticalPathTest”

Critical Path Marked In Schedule				Critical Path Found Using DECM: 06A401a 'Constraint Method'				
Unique ID	Name	Start	Finish	Unique ID	Name	Start	Finish	Total Float
9	Test Readiness Review (TRR)	08/07/2019	08/07/2019	9	Test Readiness Review (TRR)	08/06/2019	08/06/2019	-1
76	Develop Test Case Specifications	03/26/2019	05/20/2019	115	Build Test Articles	05/29/2019	06/25/2019	-19
	Develop System Acceptance Test							
77	Procedures	05/21/2019	06/24/2019	76	Develop Test Case Specifications	03/26/2019	05/20/2019	-1
	Perform Software Code & Unit				Develop System Acceptance Test			
80	Testing	06/25/2019	07/29/2019	77	Procedures	05/21/2019	06/24/2019	-1
	Generate Presentation Materials				Perform Software Code & Unit			
83	for TRR	07/30/2019	08/05/2019	80	Testing	06/25/2019	07/29/2019	-1
	Ensure TRR Exit Criteria Has Been				Generate Presentation Materials			
84	Met	08/06/2019	08/06/2019	83	for TRR	07/30/2019	08/05/2019	-1
	Conduct Test Readiness Review				Ensure TRR Exit Criteria Has Been			
85	(TRR)	08/07/2019	08/07/2019	84	Met	08/06/2019	08/06/2019	-1
					Conduct Test Readiness Review			
				85	(TRR)	08/07/2019	08/07/2019	-1