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SSI DCMA EVMS Compliance Metric (DECM) Tool

Overview

DECM refers to a set of evaluation criteria for Schedule and Earned Value Management practices which assess a contractor's compliance with the 32 EIA 748 EVMS Standard as well as many industry best practices for scheduling. Find the latest information and hot topics related to DECM at this link: [DCMA EVMS](#).

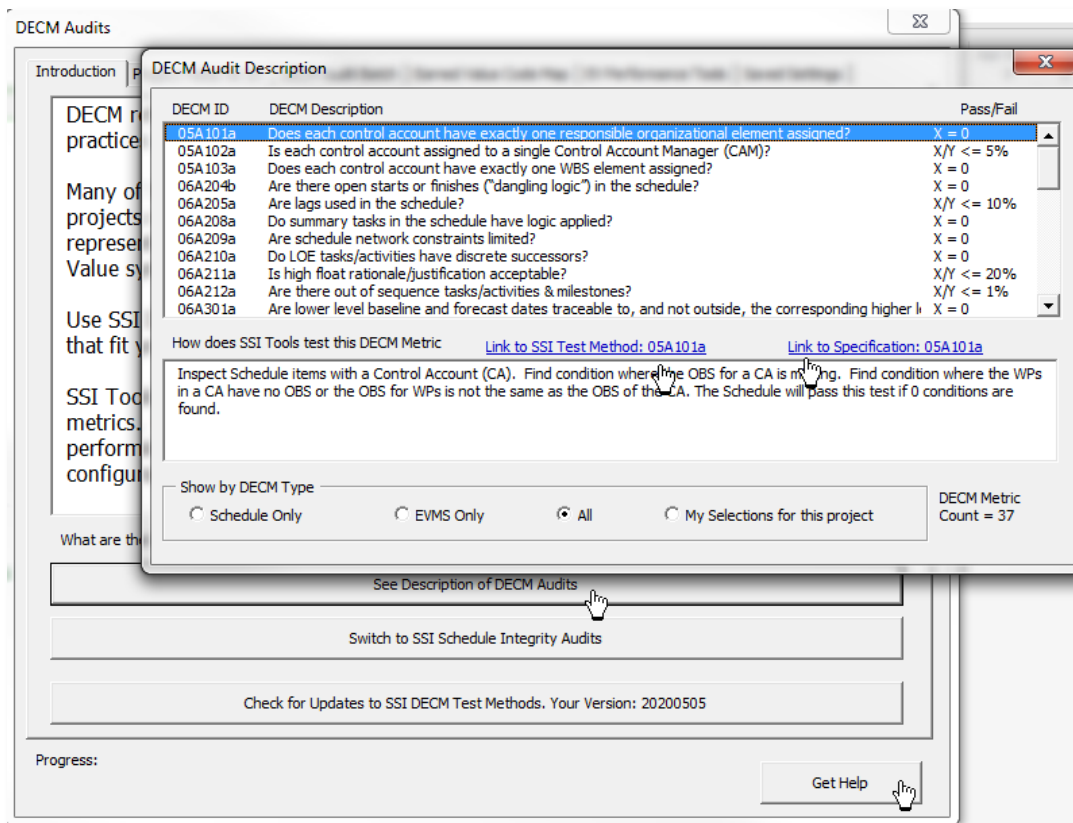
Much of the criteria cannot be assessed using the schedule alone. Others only apply to projects required to comply with the EIA 748 standard. Other criteria represent good or "best" practices in a schedule even if it is not part of an Earned Value system. Use SSI DECM Tools to tailor your self-assessment using the parts or subsets of DECM that fit your program or project's need.

Which DECM tests can be performed using the schedule alone?

SSI DECM Tools can perform [18 tests related to your implementation of an Earned Value Management System](#), and [19 tests related to Scheduling Best Practices](#).

Where to get help: <https://ssitools.com/helpandsupport/DECM/help/index.htm>

Quick Access to SSI Tools online help and DECM specifications is available on the DECM user forms.



DECM ID	DECM Description	Pass/Fail
05A101a	Does each control account have exactly one responsible organizational element assigned?	X = 0
05A102a	Is each control account assigned to a single Control Account Manager (CAM)?	X/Y <= 5%
05A103a	Does each control account have exactly one WBS element assigned?	X = 0
06A204b	Are there open starts or finishes ("dangling logic") in the schedule?	X = 0
06A205a	Are lags used in the schedule?	X/Y <= 10%
06A208a	Do summary tasks in the schedule have logic applied?	X = 0
06A209a	Are schedule network constraints limited?	X = 0
06A210a	Do LOE tasks/activities have discrete successors?	X = 0
06A211a	Is high float rationale/justification acceptable?	X/Y <= 20%
06A212a	Are there out of sequence tasks/activities & milestones?	X/Y <= 1%
06A301a	Are lower level baseline and forecast dates traceable to, and not outside, the corresponding higher level baseline and forecast dates?	X = 0

How does SSI Tools test this DECM Metric [Link to SSI Test Method: 05A101a](#) [Link to Specification: 05A101a](#)

Inspect Schedule items with a Control Account (CA). Find condition where the OBS for a CA is not the same as the OBS for the WPs in a CA. The Schedule will pass this test if 0 conditions are found.

Show by DECM Type

☐ Schedule Only ☐ EVMS Only ☒ All ☐ My Selections for this project

DECM Metric Count = 37

See Description of DECM Audits

Switch to SSI Schedule Integrity Audits

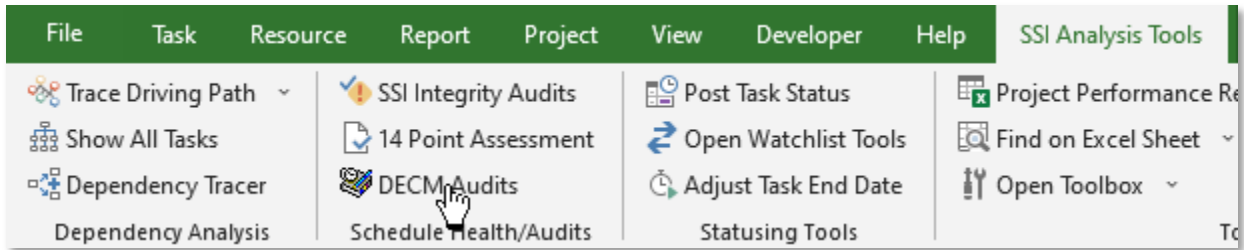
Check for Updates to SSI DECM Test Methods. Your Version: 20200505

Progress:

Get Help

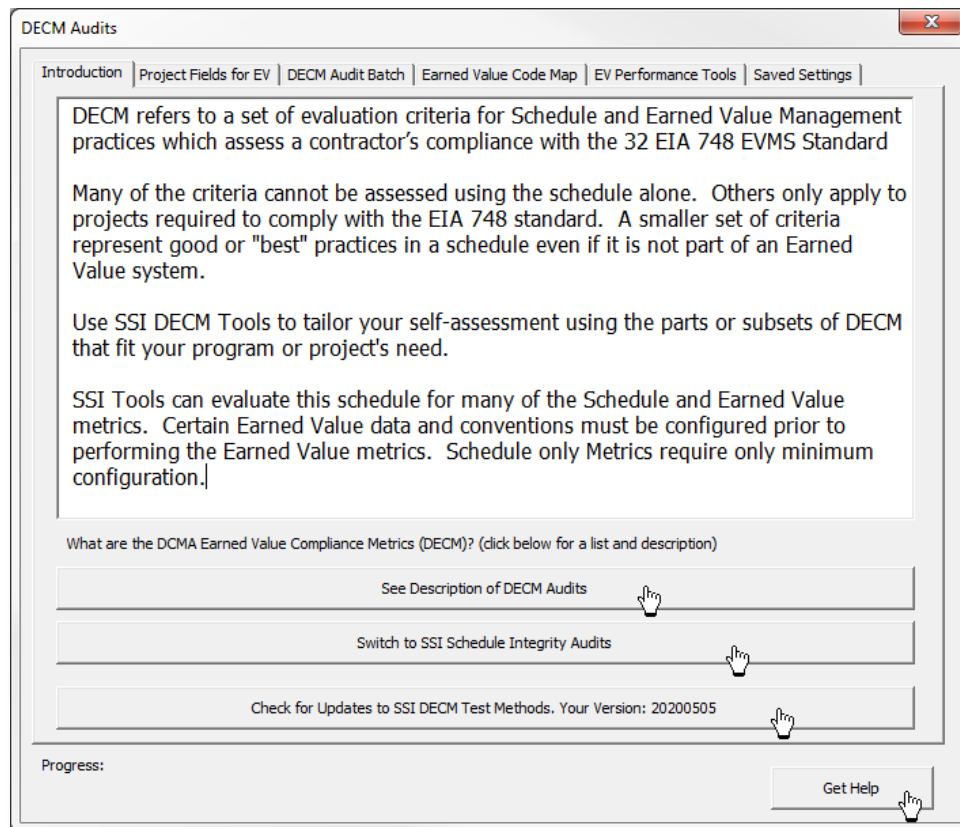
Getting Started

Click **DECM Audits** from the SSI Analysis Tools Ribbon



DECM Audits Introduction tab

The first tab on the **DECM Audits** form provides general information about DECM and gives links to individual DECM test specifications and descriptions. You can use this tab to access our online help resources, check for updates to DECM specification, test thresholds, and test methods. You can even switch from DECM Audits to Schedule Integrity Audits using the buttons on the bottom of the form.





Click See **Description of DECM Audits** to open the **DECM Audit Description** form. Select a DECM Audit from the list to display a short description of the SSI Test method for the selected item. You'll also see links to the **SSI Test Method** and the **DECM Specification** document for each audit.

The **SSI Test Method** document provides more details about how the audit condition is tested in a project file. It also shows important Project fields used for a particular test and how to setup those fields in SSI DECM tools. Lastly, it shows an example of the SSI Tools analysis report for the DECM test and describes how to interpret the test results.

SSI Tools uses a testing approach that is as close to the DCMA's test method as possible. In some cases, however, the DCMA uses data from other sources or systems such as your Earned Value Management System (EVMS) or your organization's System Description for EVM.

DECM Audit Description

DECM ID	DECM Description	Pass/Fail
05A101a	Does each control account have exactly one responsible organizational element assigned?	X = 0
05A102a	Is each control account assigned to a single Control Account Manager (CAM)?	X/Y <= 5%
05A103a	Does each control account have exactly one WBS element assigned?	X = 0
06A204b	Are there open starts or finishes ("dangling logic") in the schedule?	X = 0
06A205a	Are lags used in the schedule?	X/Y <= 10%
06A208a	Do summary tasks in the schedule have logic applied?	X = 0
06A209a	Are schedule network constraints limited?	X = 0
06A210a	Do LOE tasks/activities have discrete successors?	X = 0
06A211a	Is high float rationale/justification acceptable?	X/Y <= 20%
06A212a	Are there out of sequence tasks/activities & milestones?	X/Y <= 1%
06A301a	Are lower level baseline and forecast dates traceable to, and not outside, the corresponding higher level baseline?	X = 0

How does SSI Tools test this DECM Metric [Link to SSI Test Method: 05A102a](#) [Link to Specification: 05A102a](#)

Inspect Schedule items with a Control Account (CA). Find condition where the CAM for a CA is missing. Find condition where the WPs in a CA have no CAM or the CA for WPs does not match the CAM of the CA. The Schedule will pass this test if <5% of CAs have this condition.

Show by DECM Type

☐ Schedule Only ☐ EVMS Only ☒ All ☐ My Selections for this project

DECM Metric Count = 37

**Class Exercise – Using the DECM Audit Description form**

Open the Example Project for SSI Audit Tools (ExampleProjectAudit.mpp)*

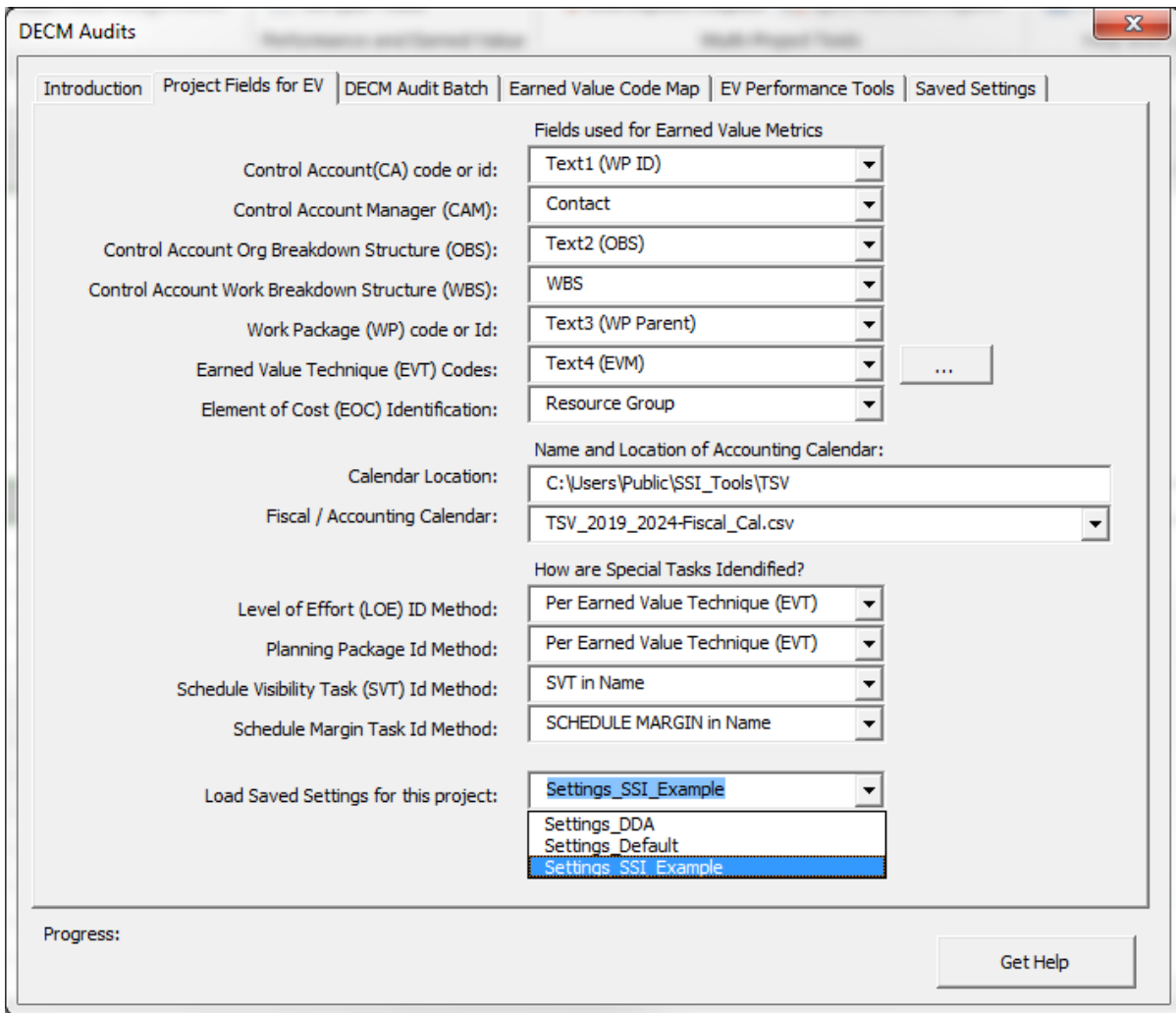
*If needed, download the Example Project at: [Example Project for Audit Tools Exercises](#)

1. Click ***Schedule Integrity Audits*** from the ***SSI Analysis Tools*** menu and select ***SSI DECM Tests***.
2. Click ***See Description of DECM Audits***.
3. Select one or more DECM audits and follow the link to the SSI Test Method and the Specification. These are online .pdf documents that you can save, bookmark or print as often as needed.

End of Exercise

DECM Audits Project Fields for EV

The next tab is where you will identify project fields used for Earned Value and other scheduling attributes of tasks in a project. Since each project may use different project fields and conventions, you can save and load one or more configuration for project settings. Hover over any of the control on this form for a quick description of the setting.



The screenshot shows the 'DECM Audits' application window with the 'Project Fields for EV' tab selected. The window has a title bar with a close button (X) and a menu bar with options: Introduction, Project Fields for EV, DECM Audit Batch, Earned Value Code Map, EV Performance Tools, and Saved Settings. The main content area is divided into two columns. The left column contains labels for various project fields, and the right column contains dropdown menus for selecting the corresponding project fields. The fields are: Control Account(CA) code or id: Text1 (WP ID); Control Account Manager (CAM): Contact; Control Account Org Breakdown Structure (OBS): Text2 (OBS); Control Account Work Breakdown Structure (WBS): WBS; Work Package (WP) code or Id: Text3 (WP Parent); Earned Value Technique (EVT) Codes: Text4 (EVM); Element of Cost (EOC) Identification: Resource Group. Below these, there are sections for 'Name and Location of Accounting Calendar:' (C:\Users\Public\SSI_Tools\TSV) and 'Fiscal / Accounting Calendar:' (TSV_2019_2024-Fiscal_Cal.csv). The 'How are Special Tasks Identified?' section has four dropdowns: Level of Effort (LOE) ID Method: Per Earned Value Technique (EVT); Planning Package Id Method: Per Earned Value Technique (EVT); Schedule Visibility Task (SVT) Id Method: SVT in Name; Schedule Margin Task Id Method: SCHEDULE MARGIN in Name. At the bottom, there is a 'Load Saved Settings for this project:' dropdown with a list of saved settings: Settings_SSI_Example, Settings_DDA, Settings_Default, and Settings_SSI_Example. A 'Progress:' label is at the bottom left, and a 'Get Help' button is at the bottom right.

Field Label	Selected Value
Control Account(CA) code or id:	Text1 (WP ID)
Control Account Manager (CAM):	Contact
Control Account Org Breakdown Structure (OBS):	Text2 (OBS)
Control Account Work Breakdown Structure (WBS):	WBS
Work Package (WP) code or Id:	Text3 (WP Parent)
Earned Value Technique (EVT) Codes:	Text4 (EVM)
Element of Cost (EOC) Identification:	Resource Group

Name and Location of Accounting Calendar:
C:\Users\Public\SSI_Tools\TSV

Fiscal / Accounting Calendar:
TSV_2019_2024-Fiscal_Cal.csv

How are Special Tasks Identified?

Field Label	Selected Value
Level of Effort (LOE) ID Method:	Per Earned Value Technique (EVT)
Planning Package Id Method:	Per Earned Value Technique (EVT)
Schedule Visibility Task (SVT) Id Method:	SVT in Name
Schedule Margin Task Id Method:	SCHEDULE MARGIN in Name

Load Saved Settings for this project:
Settings_SSI_Example
Settings_DDA
Settings_Default
Settings_SSI_Example

Progress:

Get Help

Using a "punctuation significant" code for Control Account (CA) and Work Package (WP)

Fields used for Earned Value Metrics

Control Account(CA) code or id:

Work Package (WP) code or Id:

You can use the same project field for CA and WP as long as the value in the field is delimited using a punctuation mark such as a dot or dash. The last "term" of a punctuation significant value (the text after the last dot, dash or other delimiter) will be interpreted as the WP and the preceding part of the code is considered the CA. For example: **CA11.WP1** can be used for the CA and WP code by specifying punctuation using a dot (.). In this example **CA11** will be the CA code or id and **WP1** will be the WP code or id.

Earned Value Technique (EVT) Codes requires additional information about its coding conventions

Earned Value Technique (EVT) Codes:

Click the button next to **Earned Value Technique (EVT) Codes** to identify your project's conventions for 0/100, X/Y, % Complete, Level of Effort (LOE) and Planning Packages. You may use conventions like the example below but you can also specify letter codes such as those used by Deltek Cobra or some other convention used by your organization or EV tool.

DECM Audits

Introduction | Project Fields for EV | DECM Audit Batch | Earned Value Code Map | EV Performance Tools | Saved Settings

DECM assesses your schedule for correct use of Earned Value Technique (EVT). Use this form to list the codes you use in: Text4 (EVM)

Separate each value with a comma if using more than one code in this project's EVT field. If these fields are showing Examples, replace the examples with the codes used in your project.

What value or values in are used to identify a 0/100 Earned Value Technique?

0/100

What value or values are used to identify a X/Y Earned Value Technique?

/

What value or values are used to identify a % Complete Earned Value Technique?

QBD

What value is used to identify a Level of Effort Earned Value Technique?

LOE

What value is used to identify a Planning Package?

PP



Accounting Calendar

Some DECM Audits require the use of an Accounting Calendar

Name and Location of Accounting Calendar:

Calendar Location: C:\Users\Public\SSI_Tools\TSV

Fiscal / Accounting Calendar: TSV_2019_2024-Fiscal_Cal.csv

An example of an accounting calendar is in the table below. The table has no titles. You can make it using Microsoft Excel as long as you use **Save as type = CSV (Comma delimited)**

File name: TSV_2019_2024-Fiscal_Cal

Save as type: CSV (Comma delimited)

The three columns (without column titles) are:

1. Period Label
2. Period Start Date
3. Period End Date

Example of Fiscal/Accounting Calendar file

2020-01	12/28/2019	01/31/2020
2020-02	02/01/2020	02/28/2020
2020-03	02/29/2020	03/27/2020
2020-04	03/28/2020	05/01/2020
2020-05	05/02/2020	05/29/2020
2020-06	05/30/2020	06/26/2020
2020-07	06/27/2020	07/31/2020
2020-08	08/01/2020	08/28/2020
2020-09	08/29/2020	09/25/2020
2020-10	09/26/2020	10/30/2020
2020-11	10/31/2020	11/27/2020
2020-12	11/28/2020	01/01/2021

Practice on your own – Using Project Fields for EV

Open Microsoft Excel and make a Fiscal / Accounting calendar by copying the three columns in the table below to an Excel worksheet.

1. Copy the table shown to the right
2. Paste the table to a worksheet in Excel
3. Save the Excel workbook as a CSV (Comma delimited) in
C:\Users\Public\SSi_Tools\TSV or some other location on your system you can find easily.
4. Name the file *TSV_MyAccountingCal.csv*

The solution to this exercise is named

TSV_MyAccountingCalSolution.csv

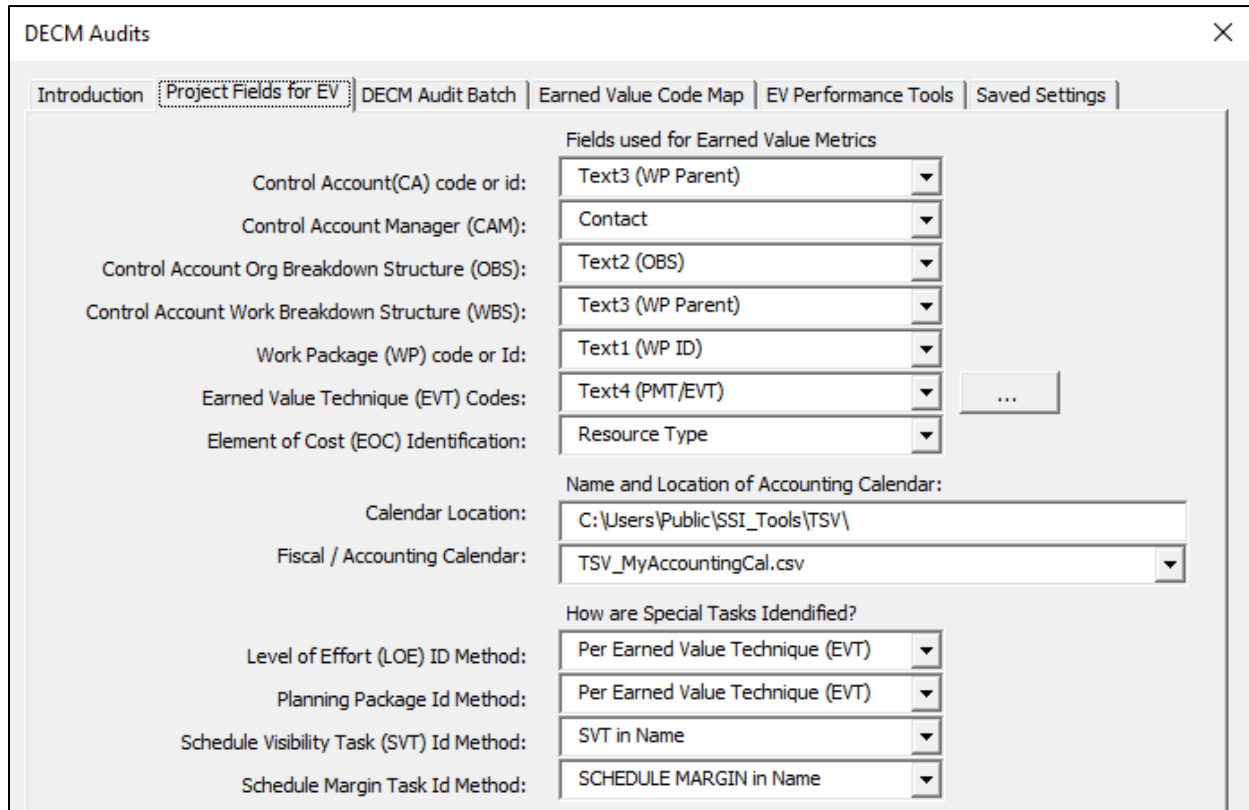
After completing the exercise, check your work against the solution file: [Accounting Calendar Solution File](#)

2020-01	12/28/2019	01/31/2020
2020-02	02/01/2020	02/28/2020
2020-03	02/29/2020	03/27/2020
2020-04	03/28/2020	05/01/2020
2020-05	05/02/2020	05/29/2020
2020-06	05/30/2020	06/26/2020
2020-07	06/27/2020	07/31/2020
2020-08	08/01/2020	08/28/2020
2020-09	08/29/2020	09/25/2020
2020-10	09/26/2020	10/30/2020
2020-11	10/31/2020	11/27/2020
2020-12	11/28/2020	01/01/2021
2021-01	01/02/2021	02/05/2021
2021-02	02/06/2021	03/05/2021
2021-03	03/06/2021	04/02/2021
2021-04	04/03/2021	05/07/2021
2021-05	05/08/2021	06/04/2021
2021-06	06/05/2021	07/02/2021
2021-07	07/03/2021	08/06/2021
2021-08	08/07/2021	09/03/2021
2021-09	09/04/2021	10/01/2021
2021-10	10/02/2021	11/05/2021
2021-11	11/06/2021	12/03/2021
2021-12	12/04/2021	12/31/2021

Open Microsoft Project and Open the Example Project for SSI Audit Tools
(ExampleProjectAudit.mpp)*

*If needed, download the Example Project at: [Example Project for Audit Tools Exercises](#)

5. Click **Schedule Integrity Audits** from the **SSI Analysis Tools** menu and select **SSI DECM Tests**
6. Click the tab named **Project Fields for EV**
7. Setup the options as shown below



DECM Audits

Introduction **Project Fields for EV** DECM Audit Batch Earned Value Code Map EV Performance Tools Saved Settings

Fields used for Earned Value Metrics

Control Account(CA) code or id: Text3 (WP Parent)

Control Account Manager (CAM): Contact

Control Account Org Breakdown Structure (OBS): Text2 (OBS)

Control Account Work Breakdown Structure (WBS): Text3 (WP Parent)

Work Package (WP) code or Id: Text1 (WP ID)

Earned Value Technique (EVT) Codes: Text4 (PMT/EVT) ...

Element of Cost (EOC) Identification: Resource Type

Name and Location of Accounting Calendar:

Calendar Location: C:\Users\Public\SSI_Tools\TSV\

Fiscal / Accounting Calendar: TSV_MyAccountingCal.csv

How are Special Tasks Identified?

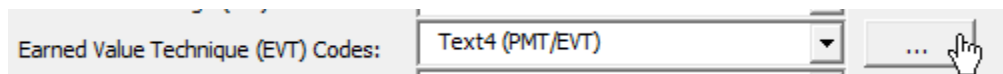
Level of Effort (LOE) ID Method: Per Earned Value Technique (EVT)

Planning Package Id Method: Per Earned Value Technique (EVT)

Schedule Visibility Task (SVT) Id Method: SVT in Name

Schedule Margin Task Id Method: SCHEDULE MARGIN in Name

8. Define conventions for Earned Value Technique (EVT) by clicking the button next to the **Earned Value Technique (EVT) Codes** field selection.



Earned Value Technique (EVT) Codes: Text4 (PMT/EVT) ...



9. Use the conventions shown below on the tab named *Earned Value Code Map*

DECM Audits

Introduction

Project Fields for EV

DECM Audit Batch

Earned Value Code Map

EV Performance Tools

Saved Settings

DECM assesses your schedule for correct use of Earned Value Technique (EVT). Use this form to list the codes you use in: TextX

Separate each value with a comma if using more than one code in this project's EVT field. If these fields are showing Examples, replace the examples with the codes used in your project.

What value or values in are used to identify a 0/100 Earned Value Technique?

0/100

What value or values are used to identify a X/Y Earned Value Technique?

/

What value or values are used to identify a % Complete Earned Value Technique?

QBD

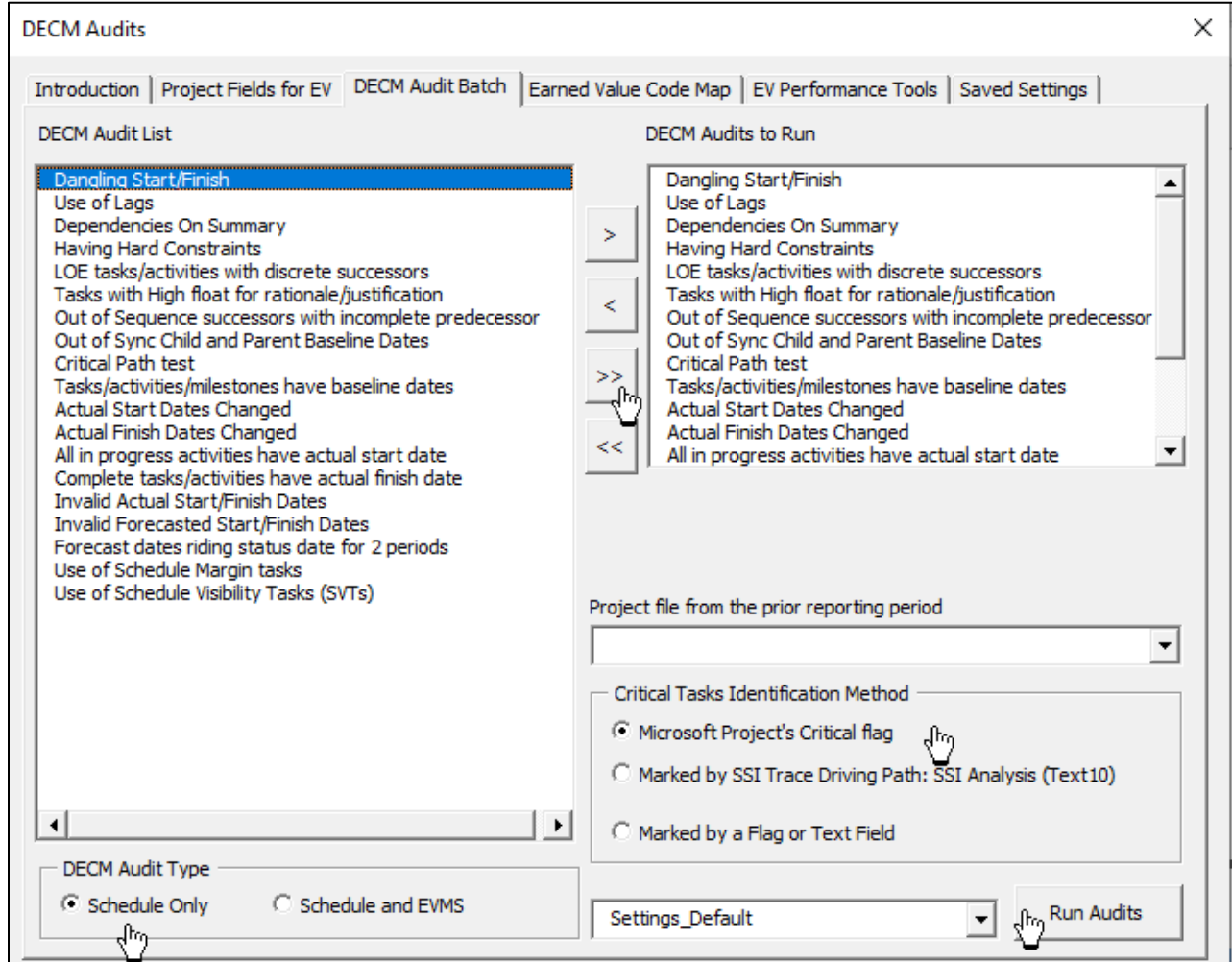
What value is used to identify a Level of Effort Earned Value Technique?

LOE

What value is used to identify a Planning Package?

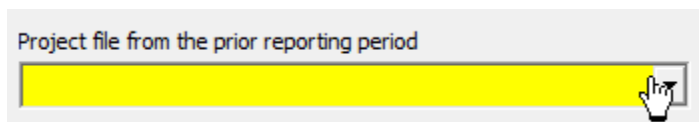
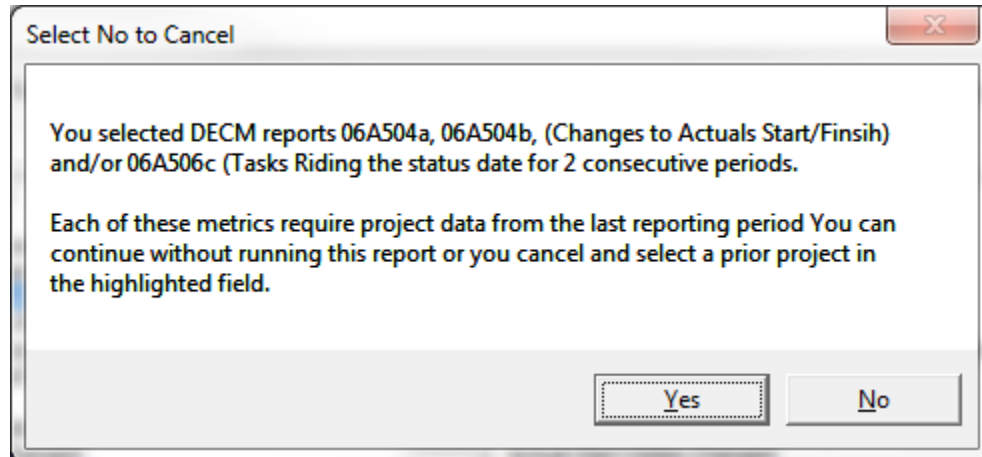
Pln Pkg

10. Select the tab named **DECM Audit Batch**
11. Click **DECM Audit Type = Schedule Only**
12. Add all from the **DECM Audit List** to the **DECM Audits to Run** list by clicking the **Add all** button



13. Double-click any item in the **DECM Audit List** to see a description of the DECM Audit
14. Click **Run Audits** – Note – you will see a warning message regarding certain DECM metrics that need data from the prior project (the project as of the prior reporting period). See the description and cause for each message below.

15. This message lets you know that some of the selected DECM Audits require data from your previous reporting period. In order to run these audits, you must have your current project and your prior project open in Microsoft Project. Select **Yes** to continue without using a prior project. If you need to run these audits on your own project, just open your current project and your prior project. Then select the prior project using *Project file from the prior reporting period*.



For the exercise, select Yes to continue. If you need to run the tests named *06A504a/b, Changes to Actual Start/Finish* or *06A506c, Task Riding the status date for 2 consecutive periods* on your own project, be sure to open the project file from the previous reporting period.



16. Look at the results in the DECM report in Excel.
17. Note the 1 and 2 on the top left of the report. This allows you to expand or collapse the report sections. Each section is the results of an individual DECM test.
18. Note the Plus or Minus signs in the left margin. These allow you to expand or collapse each test one by one.
19. Click the SSI Test Link or the Metric Spec Link to see details about each DECM Test.

1	2	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
		06A204b	Are there open starts or finishes ("dangling logic") in the schedule?	0%	0	63	0%	Pass	DECM Spec	SSI Spec
		06A205a	Are lags used in the schedule?	10%	0	63	0%	Pass	DECM Spec	SSI Spec
		06A208a	Do summary tasks in the schedule have logic applied?	0%	0	26	0%	Pass	DECM Spec	SSI Spec
		06A209a	Are schedule network constraints limited?	0%	0	63	0%	Pass	DECM Spec	SSI Spec
		06A210a	Do LOE tasks/activities have discrete successors?	0%	0	0	0%	Pass	DECM Spec	SSI Spec
		06A211a	Is high float rationale/justification acceptable?	20%	2	63	3%	Pass	DECM Spec	SSI Spec
+		06A212a	Are there out of sequence tasks/activities & milestones?	1%	0	80	0%	Pass	DECM Spec	SSI Spec
		06A301a	Are lower level baseline and forecast dates traceable to, and not outside, the corresponding higher level dates in the IMS?	0%	0	63	0%	Pass	DECM Spec	SSI Spec
		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%	Pass	DECM Spec	SSI Spec
		06A501a	Do all tasks/activities/milestones in the IMS have baseline start and finish dates?	5%	0	80	0%	Pass	DECM Spec	SSI Spec
		06A504a	Are actual start dates changed after first reported?	10%	0	0	0%	Not Tested	DECM Spec	SSI Spec
		06A504b	Are actual finish dates changed after first reported?	10%	0	0	0%	Not Tested	DECM Spec	SSI Spec
		06A505a	Do all in progress activities have actual start dates?	5%	0	9	0%	Pass	DECM Spec	SSI Spec
		06A505b	Do all complete tasks/activities have actual finish dates?	5%	1	14	7%	Fail	DECM Spec	SSI Spec
+		06A506a	Are actual start and actual finish dates valid for all tasks/activities & milestones in the IMS?	5%	1	80	1%	Pass	DECM Spec	SSI Spec
+		06A506b	Are forecast start and finish dates valid for all tasks/activities & milestones in the IMS?	0%	1	63	2%	Fail	DECM Spec	SSI Spec
+		06A506c	Are forecast start/finish dates riding the status date of the IMS for two consecutive months?	1%	0	0	0%	Not Tested	DECM Spec	SSI Spec
		06I101b	Do schedule margin tasks represent risk impact to subsequent major milestones?	0%	0	0	0%	Pass	DECM Spec	SSI Spec
		06I201a	Are Schedule Visibility Tasks (SVTs) identified and controlled in the IMS?	0%	0	0	0%	Pass	DECM Spec	SSI Spec

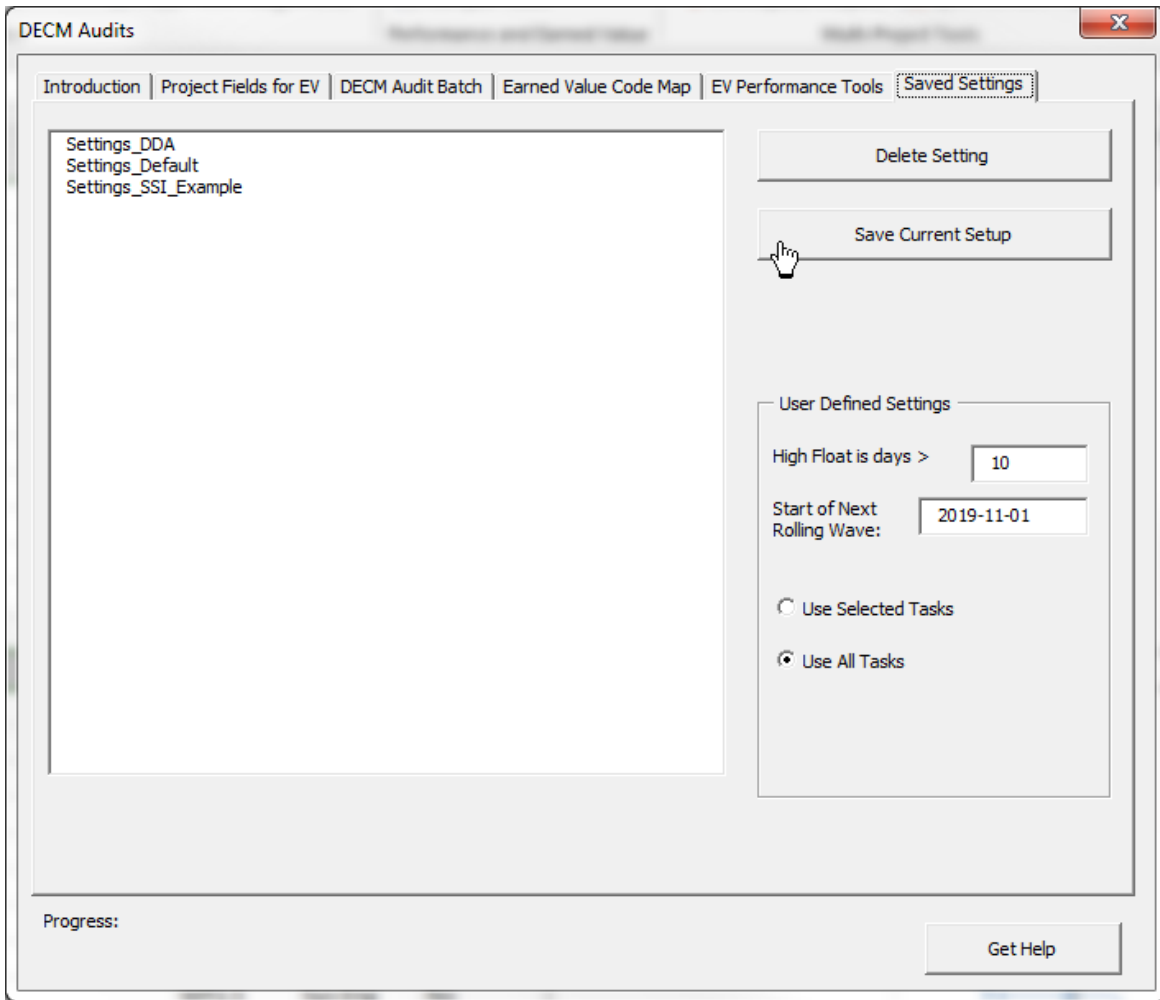
End of Exercise

Saving Settings

Use the tab named **Saved Settings** to save project **Fields for EV**, **Earned Value Code Map** and the current list of **DECM Audits to run** from the **DECM Audit Batch** tab.

The tab named **Saved Settings** has a few additional options including:

- **High Float** – the default for this setting is 44 days but you can change it here. This determines which tasks are reported as “High Float” in DECM test **06A211a: Is high float rationale/justification acceptable?**
- **Start of Next Rolling Wave** – If your project has Planning Packages, you need to show the date where planning packages may start in a project in order to perform **DECM test 06A601a: Is all effort detailed planned in the current rolling wave?**
- **Use Selected Tasks** will enable the testing of selected tasks only in the current schedule.
- **Use All tasks** will enable the automatic testing of every task in the schedule even if they are not selected.



The screenshot shows the 'DECM Audits' window with the 'Saved Settings' tab selected. The window has a title bar with 'DECM Audits' and standard window controls. Below the title bar is a tabbed interface with tabs for 'Introduction', 'Project Fields for EV', 'DECM Audit Batch', 'Earned Value Code Map', 'EV Performance Tools', and 'Saved Settings'. The 'Saved Settings' tab is active, showing a list of settings on the left: 'Settings_DDA', 'Settings_Default', and 'Settings_SSI_Example'. On the right, there are two buttons: 'Delete Setting' and 'Save Current Setup'. Below these is a section titled 'User Defined Settings' containing two input fields: 'High Float is days >' with the value '10' and 'Start of Next Rolling Wave:' with the date '2019-11-01'. At the bottom of this section are two radio buttons: 'Use Selected Tasks' (unselected) and 'Use All Tasks' (selected). At the bottom of the window, there is a 'Progress:' label and a 'Get Help' button.