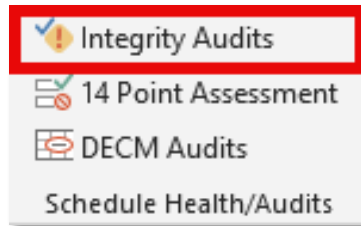


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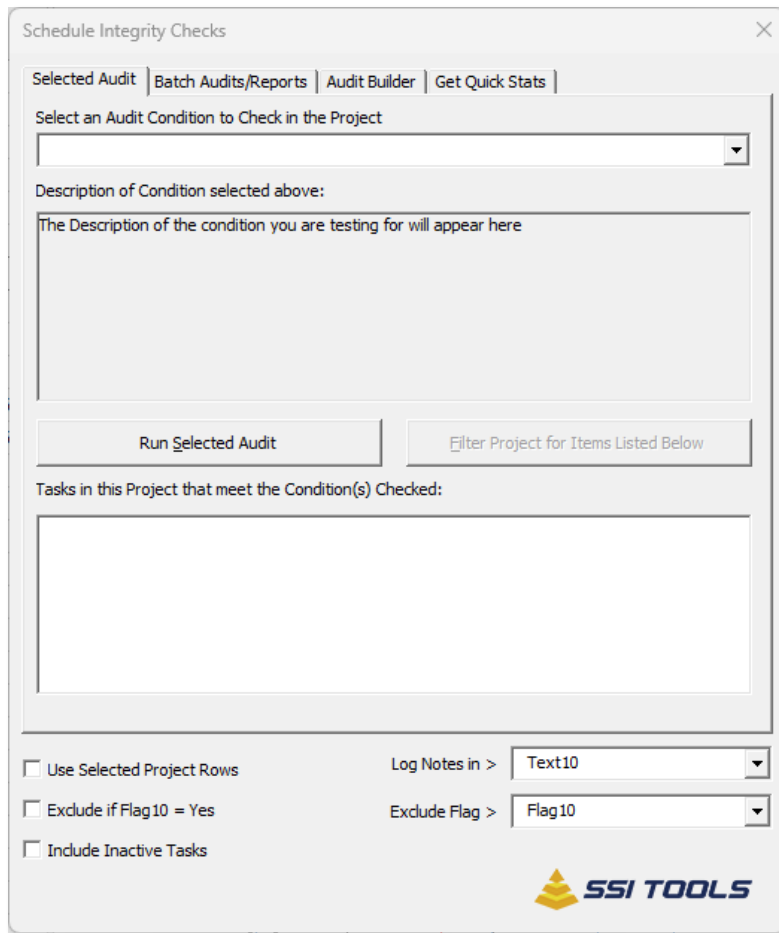
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The SSI Integrity Audits Tool



Overview

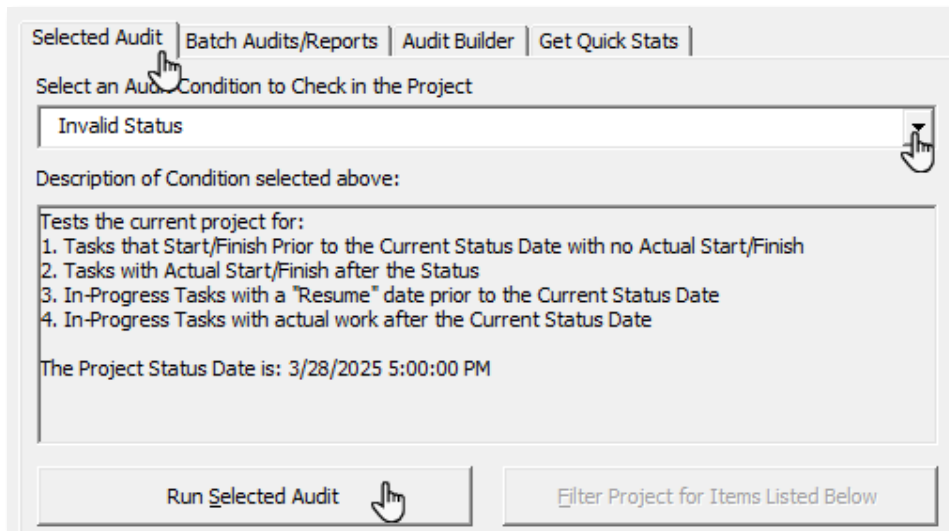
The **SSI Integrity Audits** tool in the **Schedule Health/Audits** group gives project managers the ability to evaluate a schedule for **Selected Audit** conditions, a **Batch** of conditions or custom user defined conditions created using the **Audit Builder**. Audit results can be logged in a project and displayed using a filter or they can be exported to Excel as an Audit report.

A screenshot of the 'Schedule Integrity Checks' dialog box. The dialog has a title bar with a close button. Inside, there are tabs: 'Selected Audit', 'Batch Audits/Reports', 'Audit Builder', and 'Get Quick Stats'. The 'Selected Audit' tab is active. Below the tabs is a dropdown menu labeled 'Select an Audit Condition to Check in the Project'. Underneath is a text area labeled 'Description of Condition selected above:' with the placeholder text 'The Description of the condition you are testing for will appear here'. There are two buttons: 'Run Selected Audit' and 'Filter Project for Items Listed Below'. Below these is a section labeled 'Tasks in this Project that meet the Condition(s) Checked:' with a large empty box for results. At the bottom, there are three checkboxes: 'Use Selected Project Rows', 'Exclude if Flag10 = Yes', and 'Include Inactive Tasks'. To the right of these are two dropdown menus: 'Log Notes in >' set to 'Text10' and 'Exclude Flag >' set to 'Flag10'. The SSI TOOLS logo is in the bottom right corner.

Using SSI Audit Tools for Selected and Batch Audits

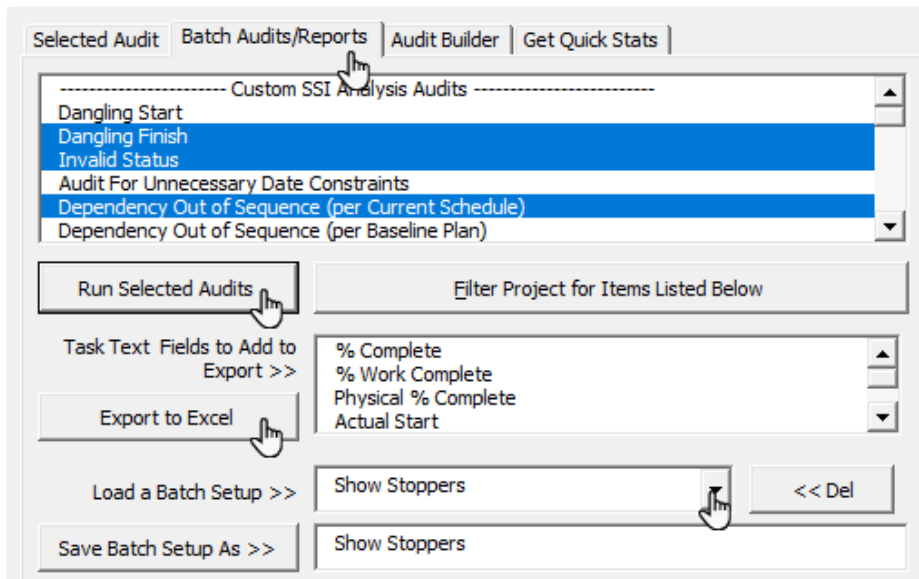
Running a Selected Audit

Sometimes you just need to know if tasks in the schedule meets a certain condition. For example, you may only want to know which tasks require a status update in the current reporting period. Run audits one at a time using the tab named **Selected Audit**.



Running a Batch of Selected Audits

Other times you may need to test a project for many conditions all at once. After identifying tasks that meet these conditions you may need to generate a report showing specific tasks that have deficiencies that need to be addressed by the project team. Run a batch of audits using **Batch Audits/Reports**.

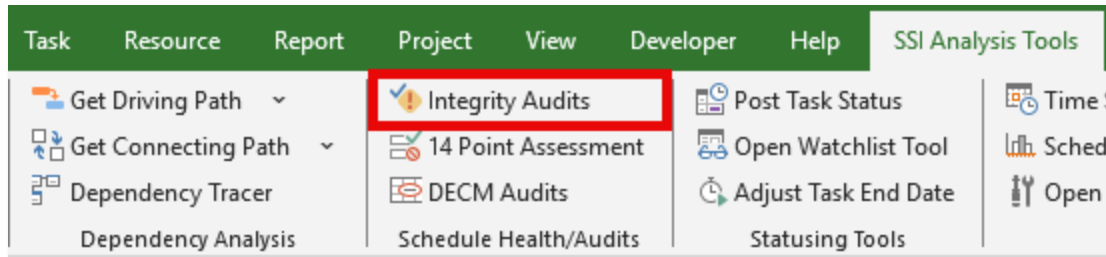


Class Exercise – Practice Running Predefined Audits

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

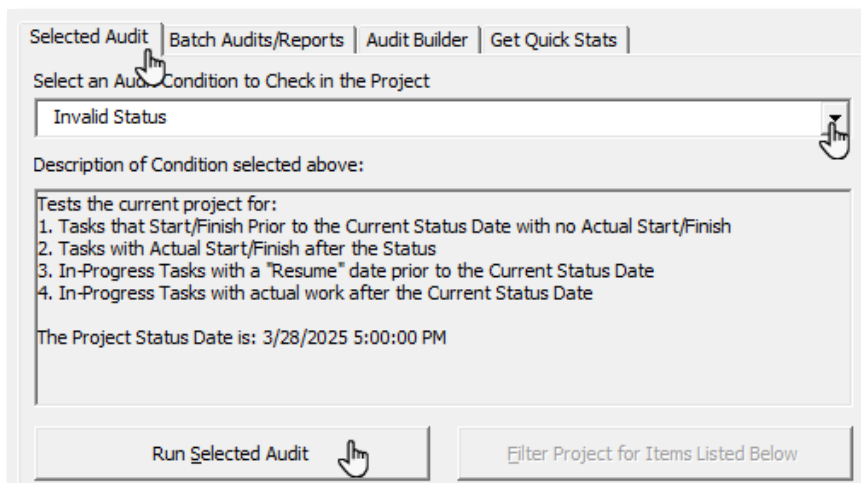
*If needed, download the Example Project at: [Example Project for Audit Tools Exercises](#)

- Click **Schedule Integrity Audits** from the *Schedule Health Group* in the SSI Tools Ribbon.

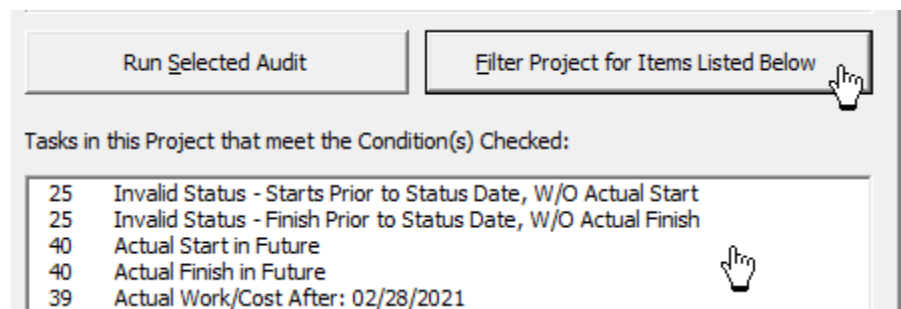


- Test the project for the Audit Conditions shown below using the tab named **Selected Audit**.

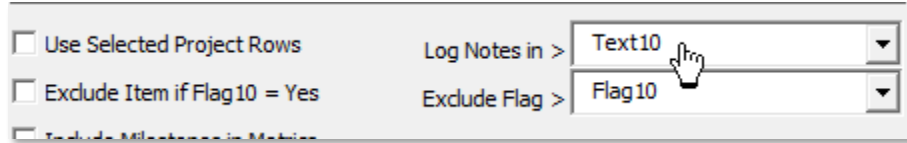
- **Dangling Finish**
- **Invalid Status**
- **Dependency Out of Sequence (per Current Schedule)**



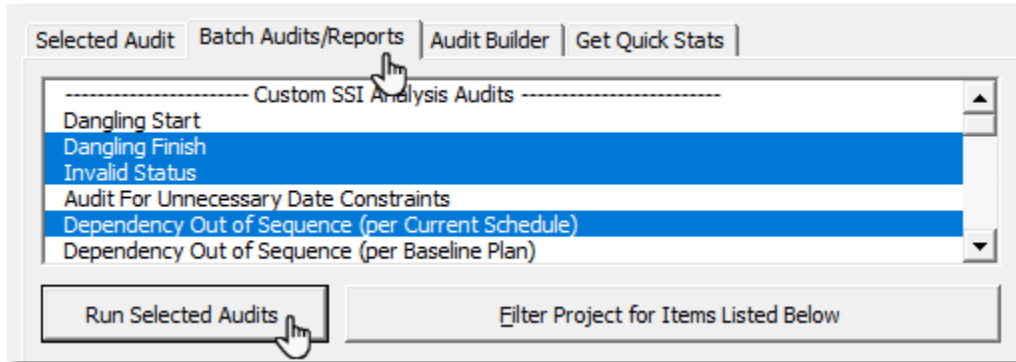
- Click the Button named **Filter Project for Items Listed Below** if any audit conditions exist to record a note of the audit condition as a note in a Text field



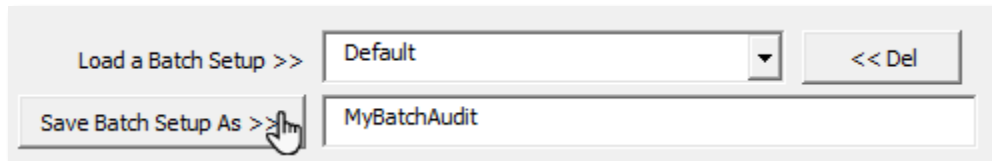
This will place audit notes in the Text field selected in the option named "**Log Notes in >**". Be sure to use an available Text field for this option so you don't overwrite important project information.



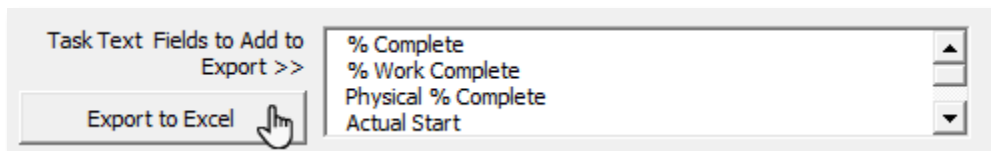
4. Now Click the tab named **Batch Audits/Reports** and select the same audit conditions as above. But this time all at once by holding the Control Key while selecting each of the three audits.



5. Save the Batch of Audits as **MyBatchAudit**



6. **Export** the Audit results to an Excel worksheet and observe the results



Audit Condition	Errors Found	Item Count	Error Pct
Dangling Finish	0	106	0.00%
Invalid Status - Work	1	106	0.94%
Invalid Status - Dates	4	106	3.77%
Dependency Out of Sequence	2	106	1.89%

End of Exercise

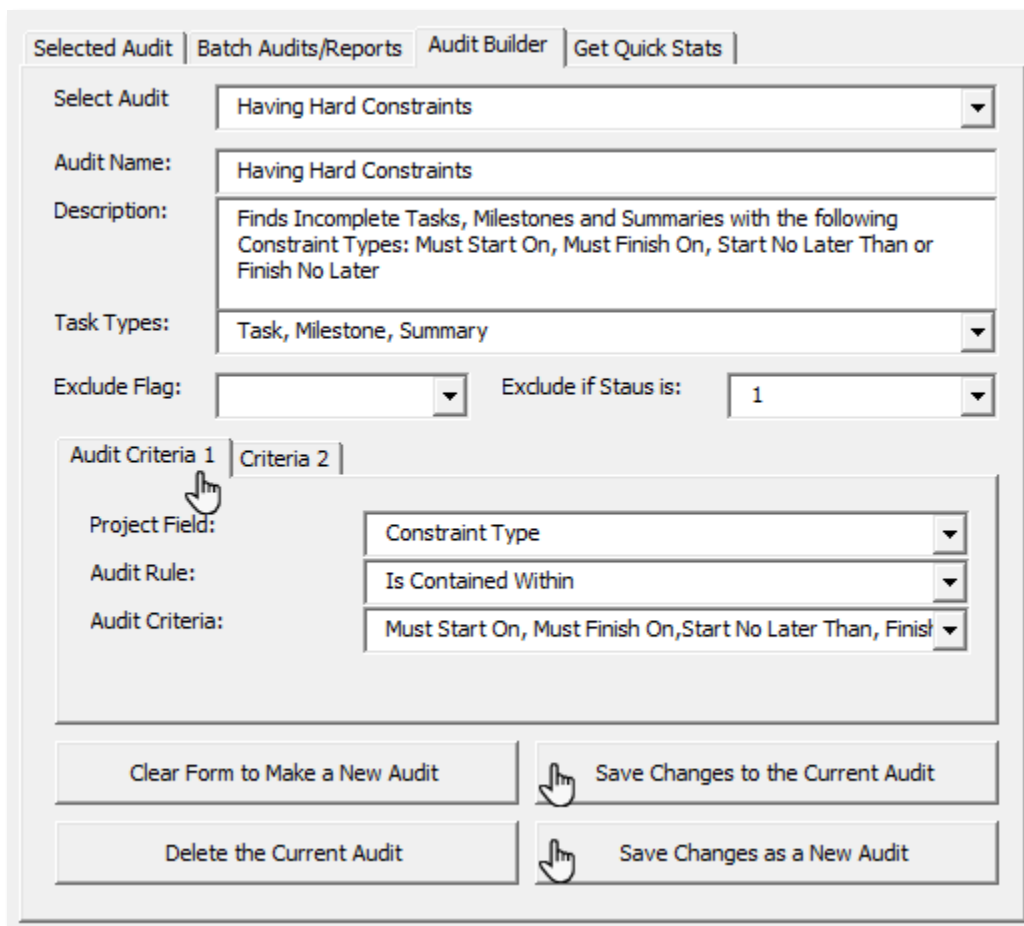
Using the Audit Builder

Schedule Integrity Metrics Tools must be robust, scalable and adaptable to the needs of an organization. They also need to be current to the definition of “Best Practices” by various Government and Industry agencies. Best Practices descriptions and criteria are found in various documents and guidelines such as:

- The Planning & Scheduling Excellence Guide (PASEG)
- The GAO Schedule Assessment Guide
- Integrated Program Management Report (IPMR) Data Item Description
- Integrated Program Management Data and Analysis Report (IPMDAR) Data Item Description
- Contract Data Requirements List (CDRL) descriptions

Additionally, a project or company may have its own audit or quality “checklist” representing their own policy or methods for developing and maintaining good schedule integrity.

SSI’s **Audit Builder** allows a team to meet current, evolving and user specific auditing needs. **User Defined Audits** can be run one at a time or added to a batch of audits and reports.



The screenshot displays the 'Audit Builder' tab within a software interface. At the top, there are four tabs: 'Selected Audit', 'Batch Audits/Reports', 'Audit Builder' (which is active), and 'Get Quick Stats'. Below the tabs, the 'Select Audit' dropdown is set to 'Having Hard Constraints'. The 'Audit Name' field also contains 'Having Hard Constraints'. The 'Description' field provides a detailed explanation: 'Finds Incomplete Tasks, Milestones and Summaries with the following Constraint Types: Must Start On, Must Finish On, Start No Later Than or Finish No Later'. The 'Task Types' dropdown is set to 'Task, Milestone, Summary'. The 'Exclude Flag' is currently empty, and the 'Exclude if Status is:' dropdown is set to '1'. Below these fields, there are two tabs for 'Audit Criteria 1' and 'Criteria 2'. Under 'Audit Criteria 1', the 'Project Field' is 'Constraint Type', the 'Audit Rule' is 'Is Contained Within', and the 'Audit Criteria' are 'Must Start On, Must Finish On, Start No Later Than, Finish'. At the bottom of the form, there are four buttons: 'Clear Form to Make a New Audit', 'Delete the Current Audit', 'Save Changes to the Current Audit', and 'Save Changes as a New Audit'. Hand cursor icons are visible over the 'Save Changes to the Current Audit' and 'Save Changes as a New Audit' buttons.

The **Audit Builder** allows users to pick from a list of pre-defined audits that can change if needed. A user can update the list of audits shown by SSI Tools by deleting unwanted audits or adding new ones.

User defined Audits are saved in a viewable, editable file named "SSI_UserDefinedAudits.xlsx". This file is in the installation directory of SSI Tools (C:\SSI_Tools\SSI_UserDefinedAudits.xlsx) by default. SSI recommends that you backup this file if you intend to edit its content. A backup of this file is also included in the \SSI_Tools\SSI_ExcelTools folder. The default installation location is C:\Users\Public\SSI_Tools\SSI_ExcelTools but your location may be different.

You can get an example of this file with user sample defined audits for Deltek Cobra Integration at: https://ssitools.com/classfiles/exercisefiles/SSI_UserDefinedAudits.xlsx. If you have created your own version of this file be careful not to overwrite it with a file you download during this training session.

ListOr de	Name	Description	AuditItem Type	ExcludeFlag	ExcludeStatus	ProjectField1	AuditRule1	AuditCriteria1
1	% Cmp <> Physical % Cmp	Checks Tasks and Milestones for Percent Complete not equal to Physical Percent Complete	Task, Milestone			% Complete	Is Not Equal	[Physical % Complete]
3	Cmp Margin With Dur >0	Name = Completed Margin with Duration > 0	Task			1 Name	Equals	Margin
4	Dependencies On Summary	Predecessor or Successor On Summary	Summary			Predecessors	Is Not Null	
5	Effort Driven Tasks	Effort Driven Tasks	Task	Flag1		0 Effort Driven	Equals	No
6	Finish is Late to BL Finish	Finish is Late to Baseline Finish	Task			Finish	Is Greater Than	[Baseline Finish]
7	Finish Late to BL Finish 1	Finish is Late to Baseline Finish 1	Task			Finish	Is Greater Than	[Finish1]

SSI Tools includes some Audit conditions that are not available in Microsoft Project filters (such as "Is Not Unique" "Is Contained Within", "Begins With", "Ends With").

The structure of a User Defined Audit must include:

- **Audit Name** and **Audit Description**
- **Task Types** to inspect (Tasks, Milestones and Summaries)
- **Audit Criteria 1** with a **Project Field**, **Audit Rule** and **Audit Criteria**

User Defined Audits may also include:

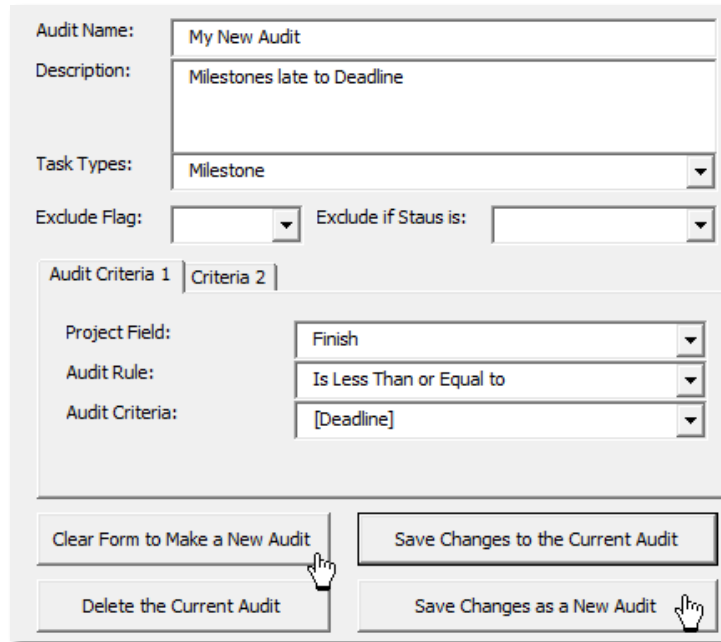
- **Audit Criteria 2** (with an **And** or an **Or** condition for the second criteria). If using the **And** condition, both conditions must be true for the item to be reported. If using the **Or** condition, either condition will cause the item to be reported.
- Flag or Status Exclusions
 - **Exclude Flag** – exclude tasks with a flag value = Yes
 - **Exclude if Status is** – exclude tasks depending on their current progress or completion status.

Practice on your own – Make User Defined Audits

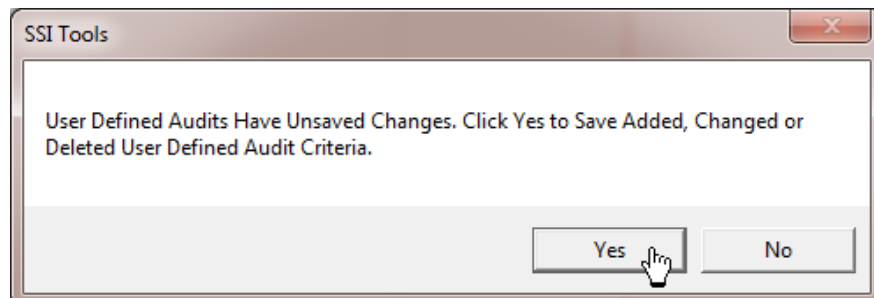
Open the Example Project for SSI Audit Tools (ExampleProjectAudit.mpp)*

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

1. Click **Schedule Integrity Audits** from the **SSi Analysis Tools** menu
2. Select the tab named **Audit Builder** on the **Schedule Integrity Checks** form
3. Click **Clear Form to Make a New Audit**
4. Enter the Audit **Name, Description, Task Type** and **Audit Criteria 1** shown below



5. Click **Save Changes as a New Audit**
6. Select the tab named **Selected Audit** and run the Audit you just created and filter the project to see the results.
7. Close the Schedule Integrity Checks form. A message box will appear asking if you want to save changes to User Defined Audits. Select **Yes**. (*wait a few seconds for the changes to be saved. Another message box will appear when the save is complete.)



8. Make your own User Defined Audits with one or more criteria.

End of Exercise

Project Fields used for User Defined Audits

Project Field	Note on its Use
% Complete	
% Work Complete	
Active	
Baseline(x) Duration	Replace the characters "(x)" with a number from 1 - 10
Baseline(x) Finish	Replace the characters "(x)" with a number from 1 - 10
Baseline(x) Start	Replace the characters "(x)" with a number from 1 - 10
Baseline Duration	
Baseline Finish	
Constraint Date	
Constraint Type	
Contact	
Dependency Lag	
Dependency To	
Dependency From	
Duration	
Effort Driven	
Estimated	
Finish	
Finish(x)	Replace the characters "(x)" with a number from 1 - 10
Flag(x)	Replace the characters "(x)" with a number from 1 - 10
Free Slack	
Manual	
Name	
Number(x)	Replace the characters "(x)" with a number from 1 - 20
Outline Code(x)	Replace the characters "(x)" with a number from 1 - 10
Outline Level	
Outline Number	
Physical % Complete	
Predecessors	
Resource Names	
Start	
Start(x)	Replace the characters "(x)" with a number from 1 - 10
Successors	
Text(x)	Replace the characters "(x)" with a number from 1 - 30
Total Slack	
Type	
WBS	

Conditions used for User Defined Audit Rules

Audit Rule	Note on its Use
Begins With	Can be used with text, code, number and date project fields
Does Not Begin With	Can be used with text, code, number and date project fields
Contains	Can be used with text, code, number and date project fields
Does Not Contain	Can be used with text, code, number and date project fields
Is Contained Within	A value in a project field is contained with a text string entered by the user. For example, the constraint type "Must Start On" is contained within this text string "Must Start On, Must Finish On, Start No Later Than, Finish No Later Than"
Ends With	Can be used with text, code, number and date project fields
Does Not End With	Can be used with text, code, number and date project fields
Equals	Can be used with text, code, number and date project fields
Is Not Equal	Can be used with text, code, number and date project fields
Is Greater Than	Can be used with text, code, number and date project fields. SSI Tools determines if the project field is a date, a numeric value or alpha characters for better handling of this condition
Is Greater Than or Equal to	Can be used with text, code, number and date project fields. SSI Tools determines if the project field is a date, a numeric value or alpha characters for better handling of this condition
Is Less Than	Can be used with text, code, number and date project fields. SSI Tools determines if the project field is a date, a numeric value or alpha characters for better handling of this condition
Is Less Than or Equal to	Can be used with text, code, number and date project fields. SSI Tools determines if the project field is a date, a numeric value or alpha characters for better handling of this condition
Is Not Unique	Can be used with text, code, number and date project fields
Is Null	Can be used with text, code, number and date project fields
Is Not Null	Can be used with text, code, number and date project fields

Project Fields used for User Defined Audit Criteria

Audit Criteria	Note on its Use
Values entered by the user	
Text, Dates or Numbers	A value entered by the user by typing its value in the Audit Criteria field
Values taken from tasks or the project	
[% Complete]	
[% Work Complete]	
[Active]	

Audit Criteria	Note on its Use
Values entered by the user	
[Baseline(x) Duration]	Replace the characters "(x)" with a number from 1 - 10
[Baseline(x) Finish]	Replace the characters "(x)" with a number from 1 - 10
[Baseline(x) Start]	Replace the characters "(x)" with a number from 1 - 10
[Baseline Duration]	
[Baseline Finish]	
[Constraint Date]	
[Constraint Type]	
[Contact]	
[Deadline]	
[Dependency Lag]	
[Duration]	
[Effort Driven]	
[Estimated]	
[Finish]	
[Finish(x)]	Replace the characters "(x)" with a number from 1 - 10
[Flag(x)]	Replace the characters "(x)" with a number from 1 - 20
[Free Slack]	
[Manual]	
[Name]	
[Number(x)]	Replace the characters "(x)" with a number from 1 - 20
[Outline Code(x)]	Replace the characters "(x)" with a number from 1 - 10
[Outline Level]	
[Outline Number]	
[Physical % Complete]	
[Predecessors]	
[Resource Names]	
[Start]	
[Start(x)]	Replace the characters "(x)" with a number from 1 - 10
[StatusDate]	
[Successors]	
[Text(x)]	Replace the characters "(x)" with a number from 1 - 30
[Total Slack]	
[Type]	
[WBS]	