



Performance Analysis Step by Step Guide



ADVISOR Enterprise User's Guide

© Copyright 1995 to 2020 BNH Expert Software Inc.

Latest Update: September 22nd, 2020

All rights reserved. No part of this publication and/or software may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of BNH Expert Software Inc., 4000 Steinberg Street, Saint Laurent, Quebec, Canada, H4R 2G7.

Printed in Canada

Foreword

ADVISOR Enterprise is a Training Management System that drives training efficiency by (a) aligning current and future training activities to operational requirements to identify gaps, duplications and training with minimal value; (b) forecasting and comparing the costs of viable delivery options; (c) uncovering cost drivers; and (d) improving resource allocation. ADVISOR is built around the ADDIE model with the added flexibility of starting the analysis at any level. ADVISOR is made up of the following modules that can be used separately or in any combination.

Needs Assessment	Assess: To find out <i>“the cause of the problem and potential solutions”</i> . Provides a step by step approach for understanding a problem before selecting the solution – in other words, before assuming that training is needed. Needs Assessment provides an audit trail and serves as the foundation for decisions by zeroing in on the source of the problem, identifying solutions that can produce the desired level of productivity, and highlighting actions that will generate the greatest impact. [Scope and Needs Assessment].
Training Analysis	Analysis: To find out <i>“who needs to be trained, on what and why”</i> . Provides a step by step approach for conducting Training Needs Analysis (TNA) or Training Systems Requirements Analysis (TSRA) to identify training needed by each job, position and employee to perform duties to the desired standard under the prescribed conditions. Four approaches may be used to conduct training analysis, namely Mission, System, Competency or Job. [Mission Analysis, Competency Analysis, System Analysis, Job Task Analysis, Knowledge/Skill Gap Analysis and Training Requirements Analysis].
Training Design	Design: To find out <i>“what is the most effective and economical way to deliver training”</i> . Provides a step by step approach for conducting Training Media Analysis (TMA) or Option Analysis to identify the most cost effective strategy for the delivery of training and generates Training Plans. The analysis takes into account limitations, instructional design requirements, upfront and recurring costs over training program life as well as risks associated with the introduction of new technology. [Media Analysis, Cost Analysis and Training Plans].
Fidelity Analysis	Develop: To find out the <i>“fidelity requirements of training devices”</i> . Provides a step by step approach for assessing the functional requirements of trainers and simulators based on training needs and performance objectives. It identifies visual, tactile, olfactory, affective and auditory sensory cues needed to practice tasks, within realistic environments, under preset conditions to attain the desired level of competency. In addition, ADVISOR takes into account elements within the virtual world and how users interact with each.
Resource Management	Implementation: To find out <i>“how much money and resources are needed”</i> . Compiles and analyzes missions/goals, competencies, systems, jobs, tasks, training requirements, courses, activities, costs, personnel and resources to generate concise, up to date and actionable reports. The reports provide insight on planned training activities for any time period; training requirements for each job/employee; budget, personnel and resource requirements, training impact as well as how to drive training effectiveness and efficiency by leveraging technology, improving resource allocation and identifying gaps, duplications and unwarranted training. [Forecast and Optimize Training Budgets, Personnel and Resources].
Project Management	Implementation: To find out <i>“how training should be implemented”</i> . Provides a step by step approach for planning a project and tracking progress in real time. This includes the setup of phases and tasks, dependencies and constraints, timelines as well as the assignment of personnel and resources needed to complete. Moreover, ADVISOR tracks progress by comparing hours worked and money spent on each task to project plan, to anticipate delays, facilitate the implementation of corrective measures, and keep projects on-time and within budget. [Develop Project Plans and Track Progress].

**Performance
Analysis**

Evaluation: To find out “*how training impacts performance and organizational goals*”. Provides a step by step approach for improving performance by zeroing in on the source of the problem and identifying solutions that can produce the desired level of productivity. Moreover, ADVISOR highlights actions that will generate the greatest impact by assessing the feasibility of implementing plausible solutions as well as forecasting the costs, benefits and Return on Investment (ROI) of each intervention. [Performance Gap Analysis, Root Cause Analysis and Cost Benefit Analysis].

**Training Life
Cycle
Management**

Manage: To “*continually uncover venues to drive training effectiveness & efficiency*”. Maintains training effectiveness and efficiency over time by continually assessing the impact of changes to missions, jobs, tasks, systems, policies, technologies, throughput, and so forth on training content and activities; as well as budget, personnel and resource requirements. This is attained through a digital-twin model that continually aligns training activities to operational requirements to identify gaps, duplications and training with minimal value. Results (personnel/resource requirements for any time period; cost drivers; bottlenecks and deficiencies) are quickly and concisely communicated through dashboards. Actions that drive training effectiveness and efficiency are also highlighted.

TABLE OF CONTENTS

1.	Evaluate Performance Deficiencies	1
	1.1 Introduction	1
	1.2 Identify Performance Gaps	2
	1.3 Create Performance Measures	6
	1.4 Estimate Monetary Impact of Problem.....	8
	1.5 Identify Potential Sources to the Problem	10
	1.6 Evaluate Tasks Performance	10
	1.7 Uncover Plausible Solutions.....	15
2.	Assess Viability of Solutions	18
	2.1 Setup Plausible Solutions	18
	2.2 Define Target Audience.....	19
	2.3 Assess the Effectiveness of Plausible Solutions	21
	2.4 Forecast the Costs of Plausible Solutions.....	23
3.	Generate Reports	27
	3.1 Generate Solution Report	27
	3.2 Identify Actions Needed to Meet Goals.....	28

Chapter 1: Evaluate Performance Deficiencies

1.1 Introduction

"I need a training program on ..." is often the opening statement in what turns out to be a costly, frustrating and unsuccessful campaign to achieve the desired performance. The rationale for training seems clear. We are implementing a new system, receiving too many complaints from our clients, not selling enough products, etc.

Prominent researchers have demonstrated that most performance deficiencies in the workplace are due to environmental factors which include vague expectations, insufficient and untimely feedback, limited access to required information, inadequate tools, resources and procedures, inappropriate and counterproductive incentives, etc. Yet, when a performance gap occurs, the default intervention is all too often training – although it is much easier to fix the environment than people. To put it in simple terms – if the performance gap is not due to a lack of skills and knowledge, don't train!

Even when you determine that training is necessary, is it sufficient? A training injection on its own, rarely works if it is not part of a total performance system.

To determine how much time and resources should be allocated to a perceived problem/opportunity, the scope of the problem/opportunity should first be defined and the assumptions validated. In other words, who initiated the request for the analysis or training, and for what reason? Based on circumstantial evidence and constraints, the validity of the request can be evaluated, the cost of the problem or the value of the opportunity estimated and the need for further analysis confirmed. The minimum (best-case scenario) and maximum (worst-case scenario) monetary impact of the problem or opportunity on performance can also be projected.

ADVISOR is a powerful decision support tool. It analyzes a performance deficiency, detects the source of the problem, identifies solutions – including training – that can produce the desired level of productivity and recommends actions to maximize your return on investment (ROI). ADVISOR is based on the published work of several experts in the field of Human Performance Technology. It guides you through the entire needs assessment and ROI process, offers valuable insight on what should be taken into consideration and why, and most importantly, it is simple to use.

ADVISOR generates concise charts and tables to effectively communicate the results to others, and provides comprehensive reports to support your decision. With ADVISOR you will never have to wonder whether you have made the right choice.

1.2 Identify Performance Gaps

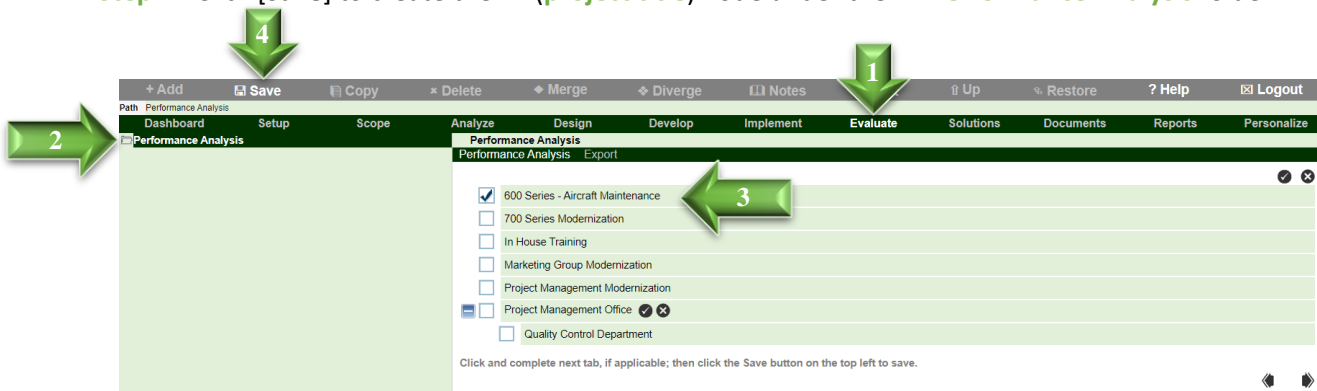
To investigate the gaps between desired and actual performance key parameters should 1st be defined within a Project. These include the Missions/Goals (i.e., what we are trying to achieve), the Tasks needed to achieve these missions/goals, who is performing each Task, desired outcomes and Performance Objectives. If key parameters have not been defined, please refer to ADVISOR Mission Analysis Step by Step Guide or ADVISOR Training Analysis User Guide on how to setup. Once the Project and key parameters have been setup, the Project to be investigated can be selected as follows:

Step 1: Click on the **Evaluate** tab.

Step 2: Click on the **Performance Analysis** folder.

Step 3: Place checkmark next to the Projects you wish to investigate.

Step 4: Click [Save] to create the **(project title)** node under the **Performance Analysis** folder.



To identify which goals are not being met:

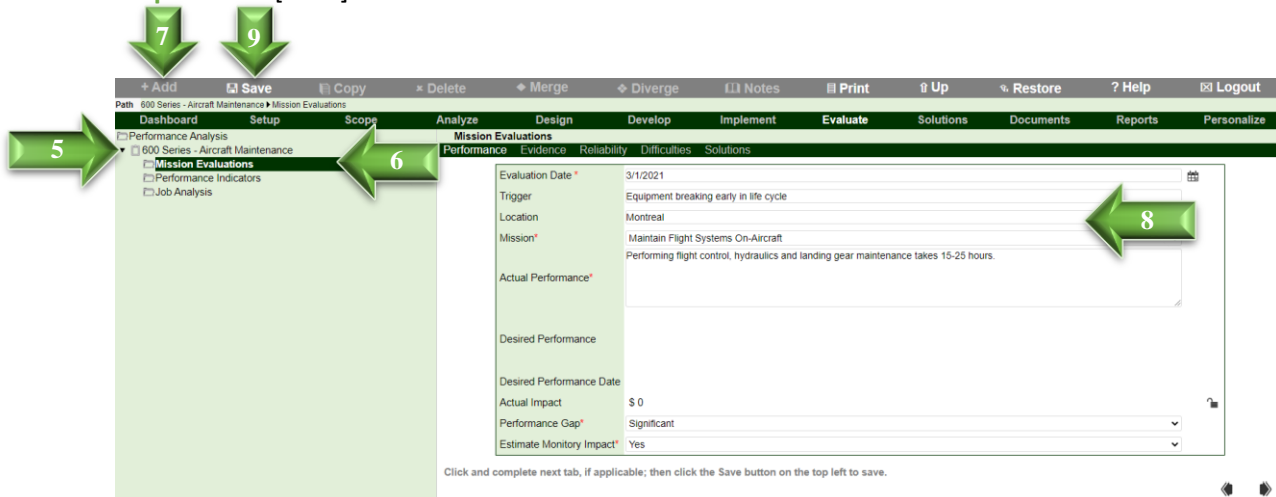
Step 5: Click on ► next to the **(project title)** node to expand.

Step 6: Click on the **Mission Evaluations** folder.

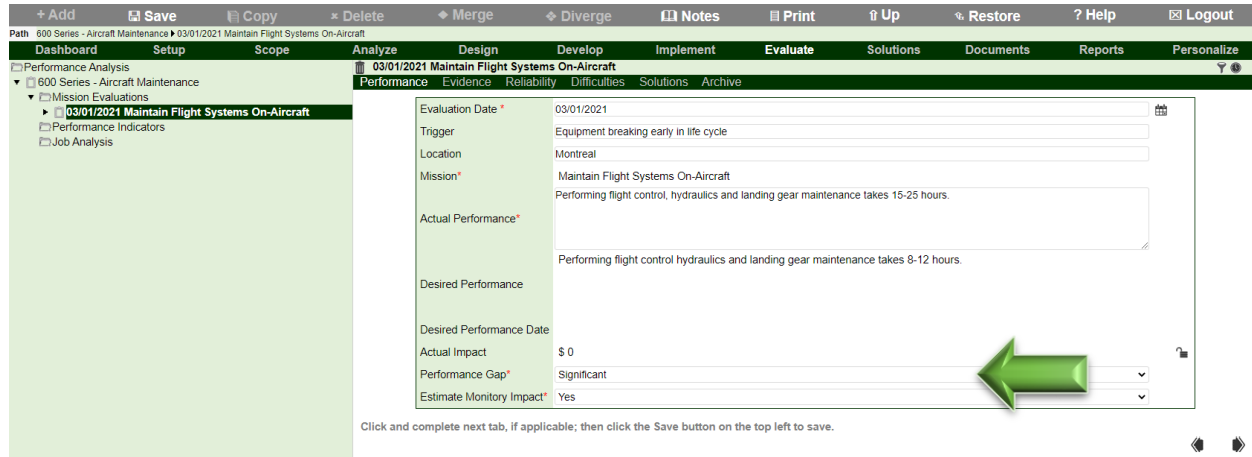
Step 7: Click [Add].

Step 8: Input the Evaluation Date, Trigger (i.e., reason for initiating the assessment), Mission/Goal under investigation, Actual Performance, Annual Impact, whether the performance gap is significant and if monetary (Actual) impact) should be estimated using performance indicators. Data required by ADVISOR is identified by a red asterisk (*). The more data you provide, the better the results.

Step 9: Click [Save].



The **Desired Performance** field is automatically populated after you click **[Save]** from the corresponding Mission/Goal Standards field under the **Analyze** tab.



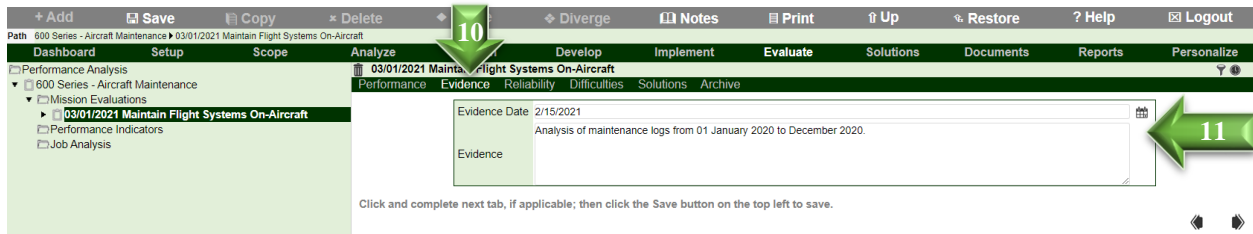
The screenshot shows the 'Analyze' tab in the software. The 'Desired Performance' field is populated with the text: 'Performing flight control hydraulics and landing gear maintenance takes 8-12 hours.' A green arrow points to this field. Other fields include 'Evaluation Date' (03/01/2021), 'Trigger' (Equipment breaking early in life cycle), 'Location' (Montreal), 'Mission' (Maintain Flight Systems On-Aircraft), 'Actual Performance' (Performing flight control, hydraulics and landing gear maintenance takes 15-25 hours.), 'Desired Performance Date', 'Actual Impact' (\$ 0), 'Performance Gap' (Significant), and 'Estimate Monetary Impact' (Yes).

Notes:

- The Actual Performance should be reported in a similar format to the Desired Performance to facilitate the identification of the performance gap.
- If the monetary impact of the problem or opportunity is:
 - Available. Input the Annual Impact and lock the value.
 - Not available. The Performance Indicators defined under the **Performance Indicators** folder can be used to estimate the Annual Impact. In this case:
 - ❖ Select Yes for **Estimate Monetary Impact** field to display the **Performance Indicators** folder and the **Summary** node under the **(mission evaluation)** node; and
 - ❖ Unlocked the **Annual Impact** field to automatically retrieve and report the average monetary value computed under the **Summary** node.
- If the **Performance Gap** is Acceptable or Not Applicable, then there is no need to carry on further with the analysis.
- Each Mission/Goal evaluation can be archived as many times as you need. Once an analysis is archived, changes to the current analysis will not impact data in archived versions. To archive an analysis, click on the **(mission/goal title)** node, then click on the **[Archive]** tab, input the Version Title and click **[Save]**. The date on which the archive was created is automatically saved with the Version Title. A list of archived versions is available under the **[View]** tab. You may view an archived version in read only mode by placing checkmark next to its title and clicking **[Save]**. You can delete as well as recover an archived version (i.e., overwrite existing version) by selecting corresponding tabs. Of course, if an analysis is deleted, all archived versions of the analysis are automatically deleted as well.

Step 10: To input evidence supporting the current level of performance, click on the **[Evidence]** tab.

Step 11: Input evidence and date.



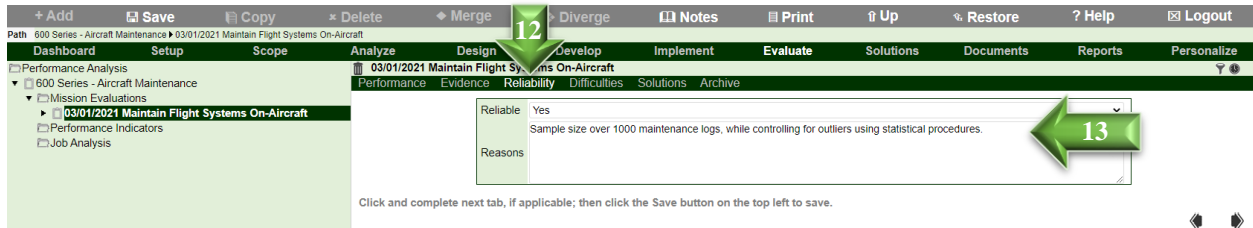
Click and complete next tab, if applicable; then click the Save button on the top left to save.

Note:

- Evidence should supplement the initial event that triggered the evaluation. Evidence may include:
 - ❖ Line manager's comments
 - ❖ Individual personnel comments
 - ❖ Audits or inspections
 - ❖ Changes in policies
 - ❖ Safety reports
 - ❖ Lessons learned reports
 - ❖ Unit readiness reports
 - ❖ Material readiness reports
 - ❖ Introduction of a new piece of equipment
 - ❖ Identification of a new or changed competitor
 - ❖ Introduction of new job or restructuring of existing job profiles (specialty codes)

Step 12: To input the reliability of collected or examined evidence, click on the **[Reliability]** tab.

Step 13: Input factors considered in assessing the reliability of the evidence.



Click and complete next tab, if applicable; then click the Save button on the top left to save.

Note:

- The following factors should be considered when evaluating the reliability of formal and informal data:

Formal Reports:

- ❖ Availability of supporting data
- ❖ Sample size and use of statistical procedures
- ❖ Sample size and assumptions related to the scalability of the problem
- ❖ Differing opinions
- ❖ Degree to which report confirms hypothesis
- ❖ Degree to which report confirms other assessments or actions
- ❖ Precision of collected data
- ❖ Reasoning used to draw conclusions
- ❖ Expert's collaboration

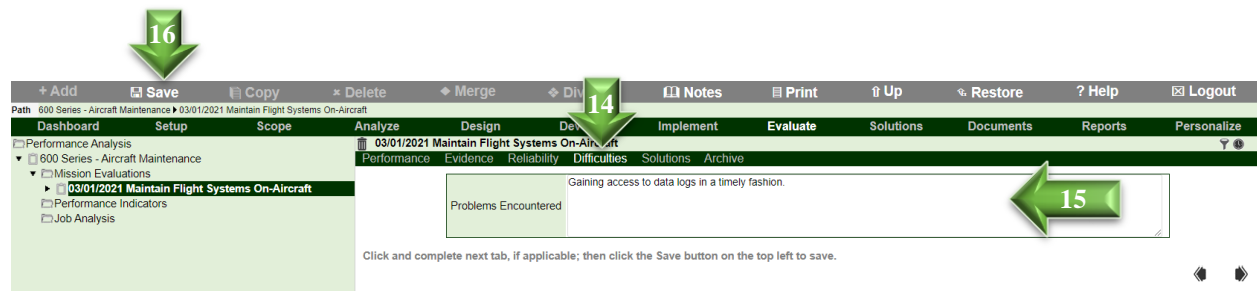
Informal Data

- ❖ Personal knowledge of individuals providing the data
- ❖ Level of detail
- ❖ Relationship to Task
- ❖ Availability or lack of supporting data
- ❖ Sample size and assumptions related to the scalability of the problem
- ❖ Differing opinions
- ❖ Degree to which data confirms hypothesis
- ❖ Degree to which data confirms other assessments or actions

Step 14: To document problems encountered in collecting data and venues used to overcome difficulties, click on the [**Difficulties**] tab.

Step 15: Describe difficulties encountered in data collection.

Step 16: Click [**Save**].



The screenshot shows the Advisor Enterprise software interface. A green arrow labeled '16' points to the 'Save' button in the top toolbar. Another green arrow labeled '14' points to the 'Difficulties' tab in the main menu. A third green arrow labeled '15' points to the 'Problems Encountered' text input field. The interface includes a top toolbar with buttons for Add, Save, Copy, Delete, Merge, Divide, Notes, Print, Up, Restore, Help, and Logout. Below the toolbar is a navigation menu with tabs: Dashboard, Setup, Scope, Analyze, Design, Develop, Implement, Evaluate, Solutions, Documents, Reports, and Personalize. The 'Analyze' tab is active, showing sub-tabs: Performance, Evidence, Reliability, Difficulties, Solutions, and Archive. The 'Difficulties' sub-tab is selected, displaying a text input field with the placeholder text 'Problems Encountered'. Below the input field, there is a small instruction: 'Click and complete next tab, if applicable; then click the Save button on the top left to save.'

1.3 Create Performance Measures

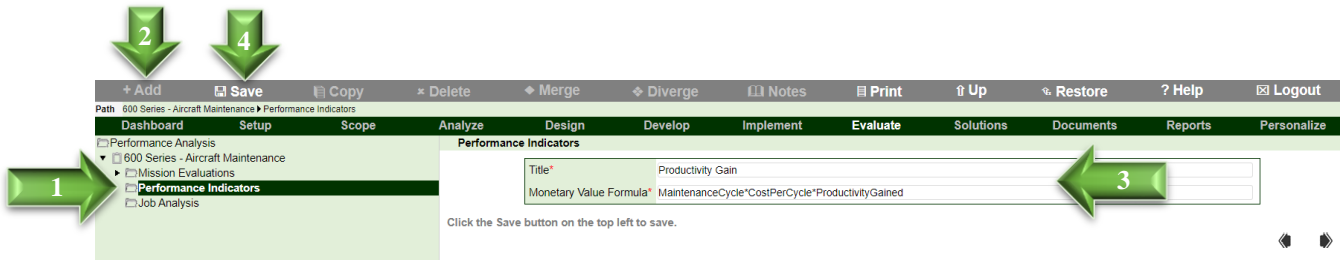
To assist analysts in estimating the monetary value of a problem or opportunity, monetary measures can be created. To define a Monetary Measure:

Step 1: Click on the **Performance Indicators** folder under the **(Project)** node.

Step 2: Click **[Add]**.

Step 3: Input the Performance Measure Title and Formula used to compute the monetary value.

Step 4: Click **[Save]** to create the Performance Indicator.



Notes:

- The Formula should capture how the monetary value of a Performance Measure is computed. It should be written in a generic format to facilitate computations under various scenarios.
- The following operators can be used in composing a formula: "+" [Add], "-" [Subtract], "/" [Divide], "*" [Multiple] and "(")" [Group].
- Each variable in the formula should be presented as one string, i.e., should not include spaces.
 - Example #1: The annual monetary value of productivity improvement in a call center may be measured as follows:

$$\text{Calls} * \text{DaysPerYear} * \text{Employees} * \text{Value} * \text{Improvement} / 100$$

Where:

- ❖ Calls = Average # of Calls Handled per Employee [per day]
- ❖ DaysPerYear = Average # of Days an Employee works per Year
- ❖ Employees = # of Employees that handle calls
- ❖ Value = Average Monetary Impact/Value [per call]
- ❖ Improvement = Potential Improvement [%]

- Example #2: The annual monetary impact of improving aircraft inspections may be measured as follows:

$$\text{Inspections} * \text{Technicians} * \text{Value} * \text{Improvement} / 100$$

Where:

- ❖ Inspections = Average # of Inspections Handled per Technician [per year]
- ❖ Technicians = # of Individuals that Inspect Aircrafts
- ❖ Value = Average Cost [per inspection]
- ❖ Improvement = Potential Improvement [%]

By expressing Performance Measures in this format, monetary impact of performance improvement can be readily computed, for any size call center or aircraft inspection facility.

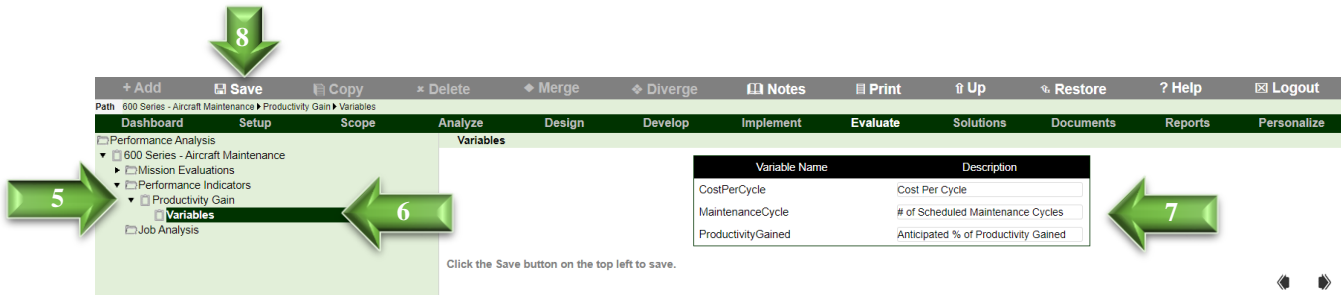
To provide a brief description for the variables in the formula:

Step 5: Click on ► next to the  (Performance Measure) node to expand.

Step 6: Click on the  Variables node.

Step 7: Input the description.

Step 8: Click [Save].





The screenshot shows the software interface with a navigation pane on the left and a main content area. A table titled 'Variables' is displayed in the main area. Green arrows indicate the steps: Step 5 points to the 'Variables' node in the left pane; Step 6 points to the 'Variables' node in the table; Step 7 points to the 'Description' column in the table; and Step 8 points to the 'Save' button in the top toolbar.

Variable Name	Description
CostPerCycle	Cost Per Cycle
MaintenanceCycle	# of Scheduled Maintenance Cycles
ProductivityGained	Anticipated % of Productivity Gained

Click the Save button on the top left to save.

1.4 Estimate Monetary Impact of Problem

Performance Measures (Section 1.3) may be used to assess the financial impact of performance deficiencies in multiple Missions/Goals. To estimate the monetary impact of a problem or an opportunity on a Mission/Goal:


- Step 1:** Click on ► next to the  (**Mission Evaluation**) node to expand.
- Step 2:** Click on the  **Performance Indicators** folder underneath.
- Step 3:** Place checkmarks next to relevant measures (created under Section 1.3) to assess the monetary impact of performance deficiency on the Mission/Goal.
- Step 4:** Click [**Save**].

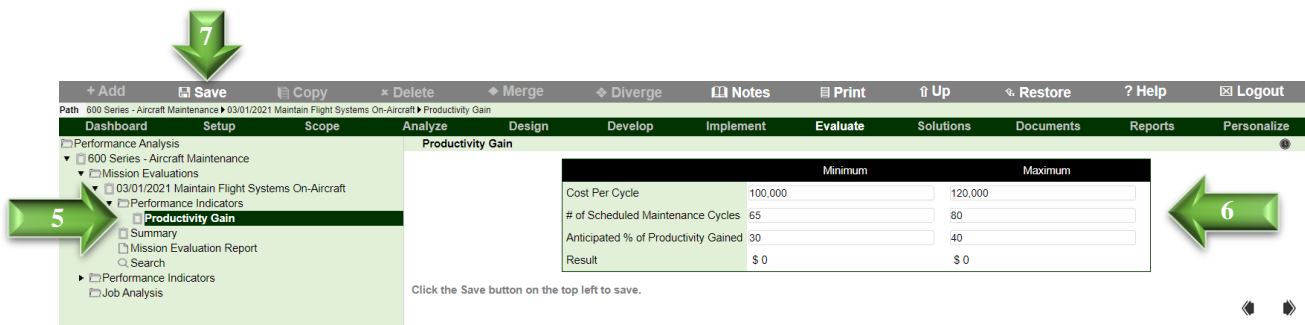


The screenshot shows the software interface with the following elements:

- Top menu: + Add, Save, Copy, Delete, Merge, Diverge, Notes, Print, Up, Restore, Help, Logout
- Path: 600 Series - Aircraft Maintenance ► 03/01/2021 Maintain Flight Systems On-Aircraft ► Performance Indicators
- Navigation tabs: Dashboard, Setup, Scope, Analyze, Design, Develop, Implement, Evaluate, Solutions, Documents, Reports, Personalize
- Left sidebar: Performance Analysis, 600 Series - Aircraft Maintenance, Mission Evaluations, 03/01/2021 Maintain Flight Systems On-Aircraft, Performance Indicators (selected), Summary, Mission Evaluation Report, Search, Performance Indicators, Job Analysis
- Main content area: Performance Indicators, Productivity Gain (checked), Click the Save button on the top left to save.


Selected Performance Measures are presented under the  **Performance Indicators** folder.

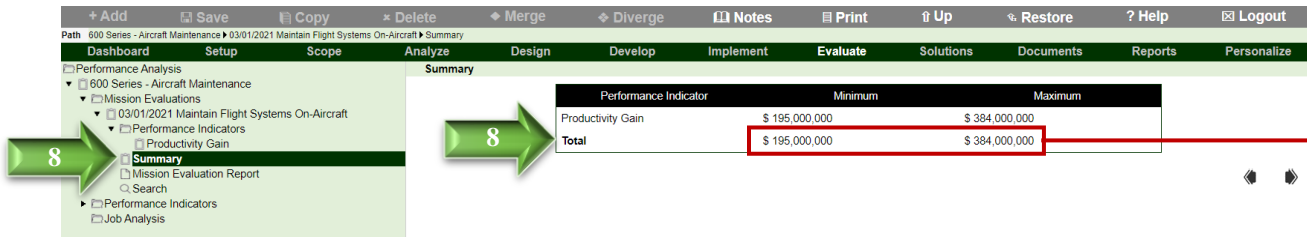
- Step 5:** Click on the  (**Performance Measure**) node to display relevant fields (i.e., variables in Formula).
- Step 6:** Input the required data.
- Step 7:** Click [**Save**] to compute the minimum and maximum monetary impact of this measure on the Mission/Goal.



The screenshot shows the software interface with the following elements:

- Top menu: + Add, Save, Copy, Delete, Merge, Diverge, Notes, Print, Up, Restore, Help, Logout
- Path: 600 Series - Aircraft Maintenance ► 03/01/2021 Maintain Flight Systems On-Aircraft ► Productivity Gain
- Navigation tabs: Dashboard, Setup, Scope, Analyze, Design, Develop, Implement, Evaluate, Solutions, Documents, Reports, Personalize
- Left sidebar: Performance Analysis, 600 Series - Aircraft Maintenance, Mission Evaluations, 03/01/2021 Maintain Flight Systems On-Aircraft, Performance Indicators, Productivity Gain (selected), Summary, Mission Evaluation Report, Search, Performance Indicators, Job Analysis
- Main content area: Productivity Gain, Minimum, Maximum, Cost Per Cycle (100,000), # of Scheduled Maintenance Cycles (65), Anticipated % of Productivity Gained (30), Result (\$ 0), Click the Save button on the top left to save.

Step 8: Click the  **Summary** node to view the compiled results of all Performance Measures.





Path: 600 Series - Aircraft Maintenance > 03/01/2021 Maintain Flight Systems On-Aircraft > Summary


Dashboard Setup Scope Analyze Design Develop Implement Evaluate Solutions Documents Reports Personalize

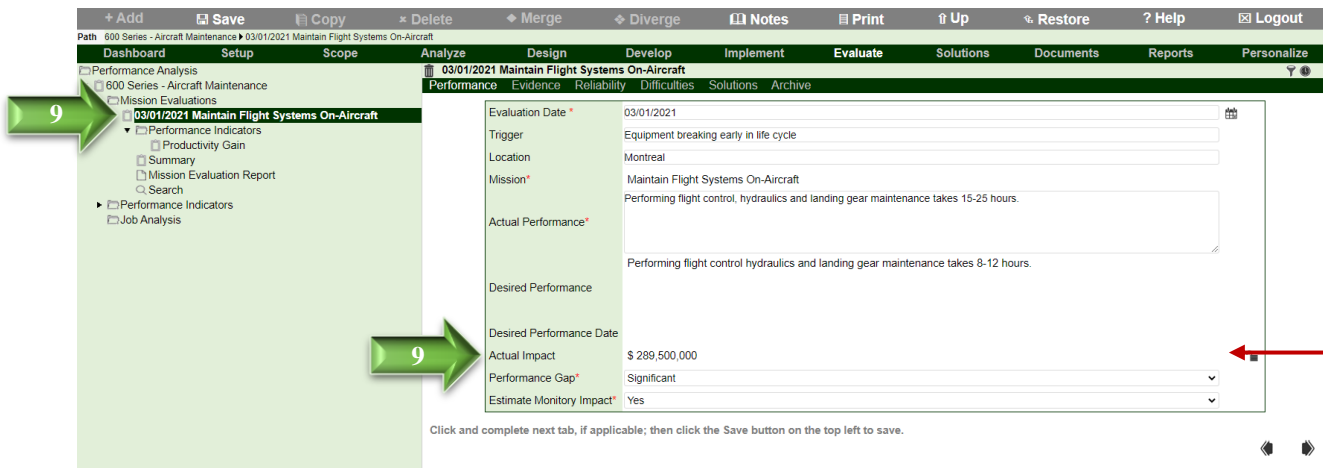
Performance Analysis

- 600 Series - Aircraft Maintenance
 - Mission Evaluations
 - 03/01/2021 Maintain Flight Systems On-Aircraft
 - Performance Indicators
 - Productivity Gain
 - Summary**
 - Mission Evaluation Report
 - Search

Performance Indicator	Minimum	Maximum
Productivity Gain	\$ 195,000,000	\$ 384,000,000
Total	\$ 195,000,000	\$ 384,000,000

The average monetary value $[(\text{minimum} + \text{maximum}) / 2]$ of all Performance Measures is transferred to the **Annual Impact** field under the  (**Mission Evaluation**) node, if unlocked .

Step 9: Click on the  (**Mission Evaluation**) node to view the estimated monetary impact of performance deficiency on Mission/Goal.



Path: 600 Series - Aircraft Maintenance > 03/01/2021 Maintain Flight Systems On-Aircraft

Dashboard Setup Scope Analyze Design Develop Implement Evaluate Solutions Documents Reports Personalize

Performance Evidence Reliability Difficulties Solutions Archive

03/01/2021 Maintain Flight Systems On-Aircraft

- Performance Indicators
 - Productivity Gain
 - Summary
 - Mission Evaluation Report
 - Search

Actual Performance*

Desired Performance

Desired Performance Date

Actual Impact \$ 289,500,000

Performance Gap* Significant

Estimate Monetary Impact* Yes

Click and complete next tab, if applicable; then click the Save button on the top left to save.

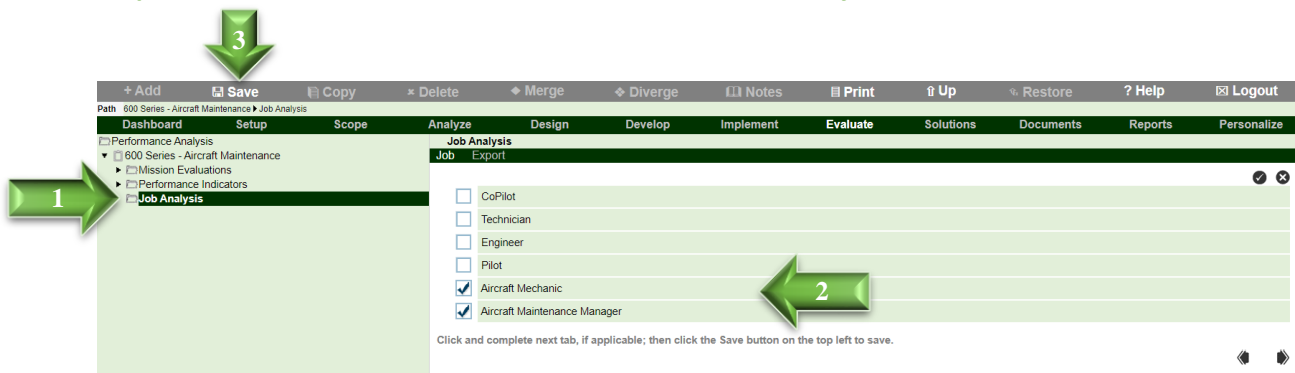
1.5 Identify Potential Sources to the Problem

To zero in on the source of the problem, all Performance Objectives (POs) that impact the Mission/Goal should be identified along with who is responsible for performing them. If Job Task Analysis has been conducted and POs defined including impact on Mission/Goal (Mission Analysis Step by Step Guide), ADVISOR will automatically identify all corresponding Jobs and (POs) that may impact the Mission/Goal. Otherwise, you can add Jobs and POs as follows:

Step 1: Click on the **Job Analysis** folder.

Step 2: Place checkmarks next to relevant Jobs.

Step 3: Click **[Save]** to list selected Jobs under the **Job Analysis** folder.



Click and complete next tab, if applicable; then click the Save button on the top left to save.

1.6 Evaluate Task Performance

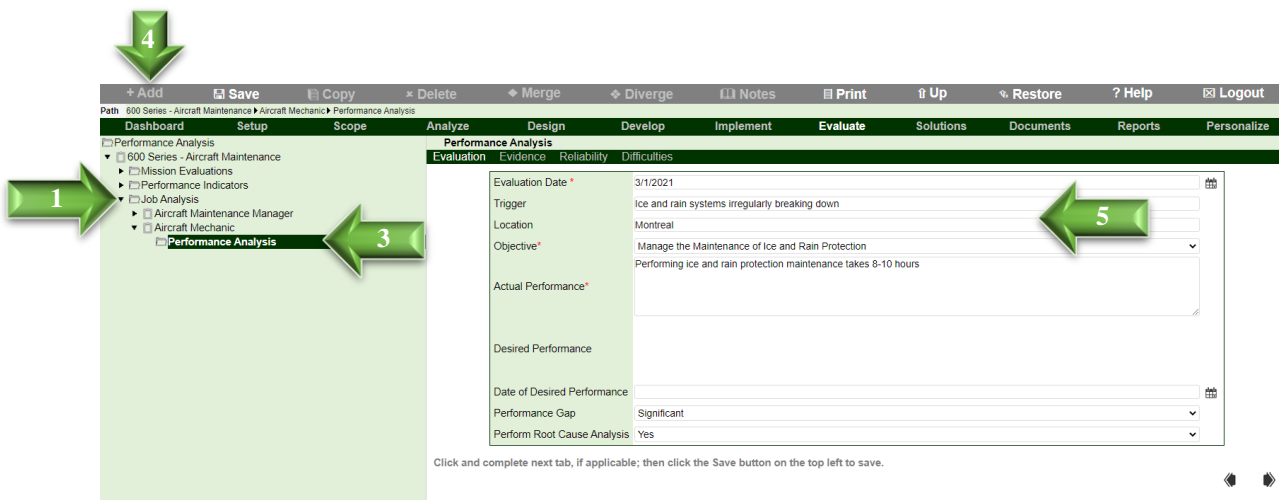
Step 1: Click on ► next to the **Job Analysis** folder to expand.

Step 2: Click on ► next to the **Job** node to expand.

Step 3: Click on the **Performance Analysis** folder.








Step 4: Click **[Add]**.

Step 5: Input the Evaluation Date, Trigger (i.e., reason for initiating the assessment), Objective (Task) under investigation, Actual Performance, whether the performance gap is significant and if root cause analysis is needed to identify the source of the problem and plausible solutions.

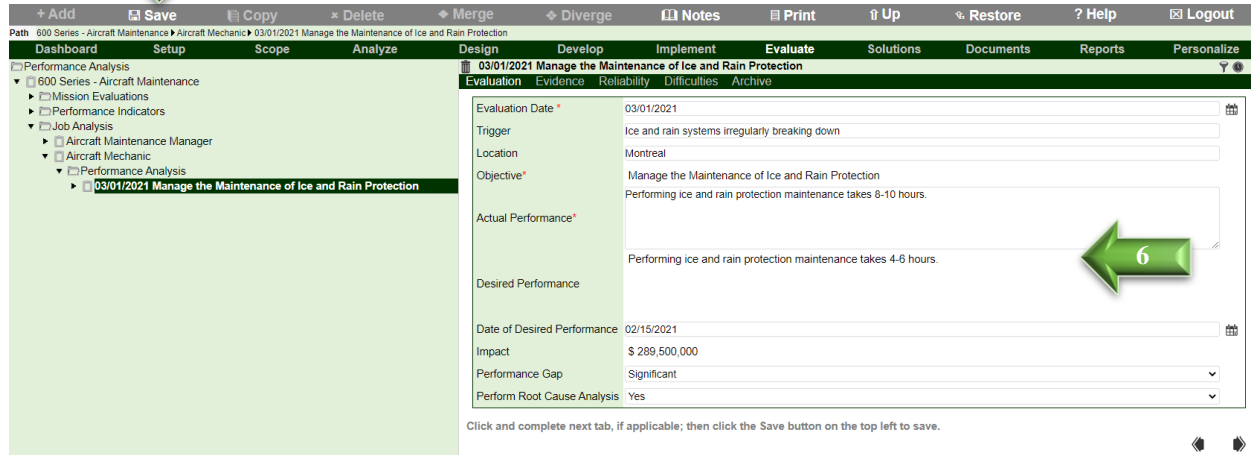


Click and complete next tab, if applicable; then click the Save button on the top left to save.

Notes:

- Only POs that have been setup for the Job under the **Analysis** tab can be investigated. If none have been defined, please refer to ADVISOR Mission Analysis Step by Step Guide or Training Analysis User Guide on how to conduct Job Task Analysis.
- Once Jobs and POs that impact Missions/Goals have been created, Jobs and POs that impact a specific Mission/Goal can be identified by clicking on the  **Goals Top Down View Report** node under the  **Project Reports** folder.
- The Actual Performance should be reported in a similar format to the Desired Performance to facilitate the identification of the performance gap.
- If the **Performance Gap** is Acceptable or Not Applicable, then there is no need to carry on further with the analysis.
- If the Performance Gap is Significant, then “Yes” should be selected for **Perform Root Cause Analysis** field. This will in-turn display the  **Root Cause Analysis** folder,  **Plausible Solutions** node, and the  **Report** node under the  **(objective)** node to identify the source of the problem and potential solutions.
- Each Performance Analysis can be archived (i.e., preserved) as many times as you need. Once archived, changes to the current analysis will not impact data in archived versions. To archive an analysis, click on the  **(objective)**, then click on the **[Archive]** tab, input the Version Title and click **[Save]**. The date on which the archive was created is automatically saved with the Version Title.
- A list of archived versions is available under the **[View]** tab. You may view an archived version in read only mode by placing checkmark next to the title and clicking **[Save]**. You can also delete as well as recover an archived version (i.e., overwrite existing version) by selecting corresponding tabs. Of course, if an analysis is deleted, all archived versions of the analysis are automatically deleted as well.

Step 6: Click [Save]. The **Desired Performance** field is automatically populated from the corresponding PO Standards field under the **Analyze** tab.

Path: 600 Series - Aircraft Maintenance > Aircraft Mechanic > 03/01/2021 Manage the Maintenance of Ice and Rain Protection

Dashboard Setup Scope Analyze Design Develop Implement Evaluate Solutions Documents Reports Personalize

Performance Analysis

- 600 Series - Aircraft Maintenance
 - Mission Evaluations
 - Performance Indicators
 - Job Analysis
 - Aircraft Maintenance Manager
 - Aircraft Mechanic
 - Performance Analysis
 - 03/01/2021 Manage the Maintenance of Ice and Rain Protection

03/01/2021 Manage the Maintenance of Ice and Rain Protection

Evaluation Evidence Reliability Difficulties Archive

Evaluation Date * 03/01/2021

Trigger Ice and rain systems irregularly breaking down

Location Montreal

Objective* Manage the Maintenance of Ice and Rain Protection
Performing ice and rain protection maintenance takes 8-10 hours.

Actual Performance* Performing ice and rain protection maintenance takes 4-6 hours.

Desired Performance

Date of Desired Performance 02/15/2021

Impact \$ 289,500,000

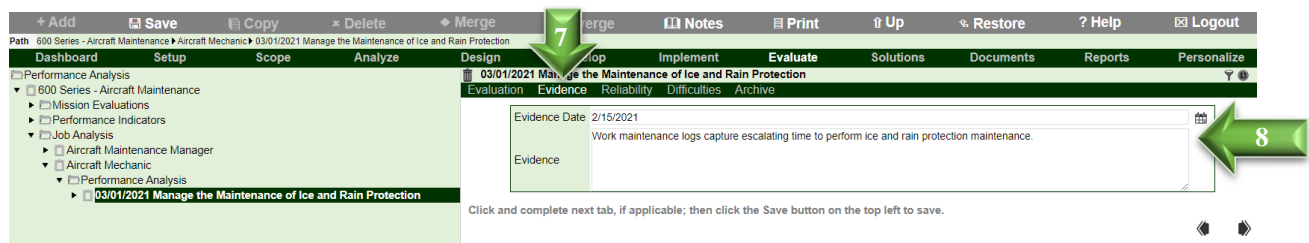
Performance Gap Significant

Perform Root Cause Analysis Yes

Click and complete next tab, if applicable; then click the Save button on the top left to save.

Step 7: To input evidence supporting the current level of performance, click on the [Evidence] tab.

Step 8: Input the evidence and date.



Path: 600 Series - Aircraft Maintenance > Aircraft Mechanic > 03/01/2021 Manage the Maintenance of Ice and Rain Protection

Dashboard Setup Scope Analyze Design Develop Implement Evaluate Solutions Documents Reports Personalize

Performance Analysis

- 600 Series - Aircraft Maintenance
 - Mission Evaluations
 - Performance Indicators
 - Job Analysis
 - Aircraft Maintenance Manager
 - Aircraft Mechanic
 - Performance Analysis
 - 03/01/2021 Manage the Maintenance of Ice and Rain Protection

03/01/2021 Manage the Maintenance of Ice and Rain Protection

Evaluation Evidence Reliability Difficulties Archive

Evidence Date 2/15/2021

Evidence Work maintenance logs capture escalating time to perform ice and rain protection maintenance.

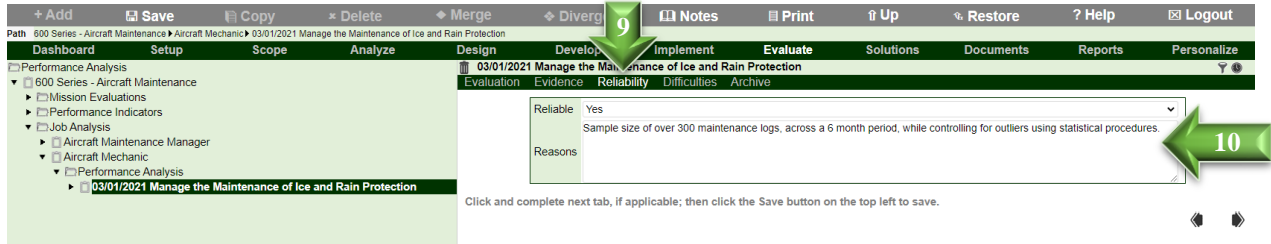
Click and complete next tab, if applicable; then click the Save button on the top left to save.

Note:

- Evidence should supplement the initial event that triggered the evaluation. Evidence may include:
 - ❖ Line manager's comments
 - ❖ Individual personnel comments
 - ❖ Audits or inspections
 - ❖ Changes in policies
 - ❖ Safety reports
 - ❖ Lessons learned reports
 - ❖ Unit readiness reports
 - ❖ Material readiness reports
 - ❖ Introduction of a new piece of equipment
 - ❖ Identification of a new or changed competitor
 - ❖ Introduction of new or restructuring of existing job profiles (specialty codes)

Step 9: To input the reliability of collected or examined evidence, click on the [**Reliability**] tab.

Step 10: Input factors considered in assessing the reliability of the evidence.



Note:

➤ The following factors should be considered when evaluating the reliability of formal and informal data:

Formal Reports:

- ❖ Availability of supporting data
- ❖ Sample size and use of statistical procedures
- ❖ Sample size and assumptions related to the scalability of the problem
- ❖ Differing opinions
- ❖ Degree to which report confirms hypothesis
- ❖ Degree to which report confirms other assessments or actions
- ❖ Precision of collected data
- ❖ Reasoning used to draw conclusions
- ❖ Expert's collaboration

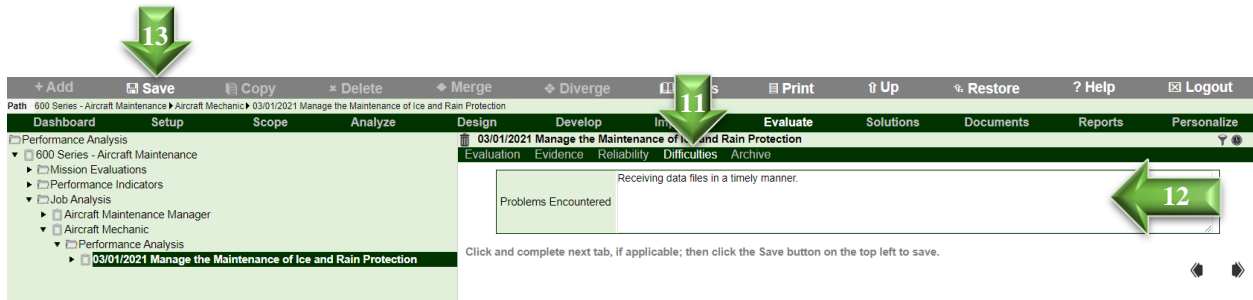
Informal Data

- ❖ Personal knowledge of individuals providing the data
- ❖ Level of detail
- ❖ Relationship to Task
- ❖ Availability or lack of supporting data
- ❖ Sample size and assumptions related to the scalability of the problem
- ❖ Differing opinions
- ❖ Degree to which data confirms hypothesis
- ❖ Degree to which data confirms other assessments or actions

Step 11: To document problems encountered in collecting data and venues used to overcome difficulties, click on the **[Difficulties]** tab.

Step 12: Describe difficulties encountered in data collection.

Step 13: Click **[Save]**.



The screenshot shows the Advisor Enterprise software interface. The top toolbar includes buttons for '+ Add', 'Save', 'Copy', 'Delete', 'Merge', 'Diverge', 'Print', 'Up', 'Restore', 'Help', and 'Logout'. The main menu is divided into several sections: 'Dashboard', 'Setup', 'Scope', 'Analyze', 'Design', 'Develop', 'Implement', 'Evaluate', 'Solutions', 'Documents', 'Reports', and 'Personalize'. The 'Evaluate' section is expanded, showing sub-tabs for 'Evaluation', 'Evidence', 'Reliability', 'Difficulties', and 'Archive'. The 'Difficulties' tab is selected, displaying a text area with the text 'Receiving data files in a timely manner.' and a 'Problems Encountered' label. A green arrow labeled '12' points to this text area. A green arrow labeled '13' points to the 'Save' button in the top toolbar. A green arrow labeled '11' points to the 'Difficulties' tab. The left sidebar shows a tree view of the project structure, with '03/01/2021 Manage the Maintenance of Ice and Rain Protection' selected.










Note:

- Repeat this process for each Performance Objective under each Job.

1.6 Uncover Plausible Solutions

If the evaluation revealed a performance deficiency – i.e., a gap between desired and actual Task (PO) performance, root cause analysis is needed to determine the source of the problem and plausible solutions – which may include training, job aids, tools, changes to policies/procedures, and so forth. To initiate the analysis:

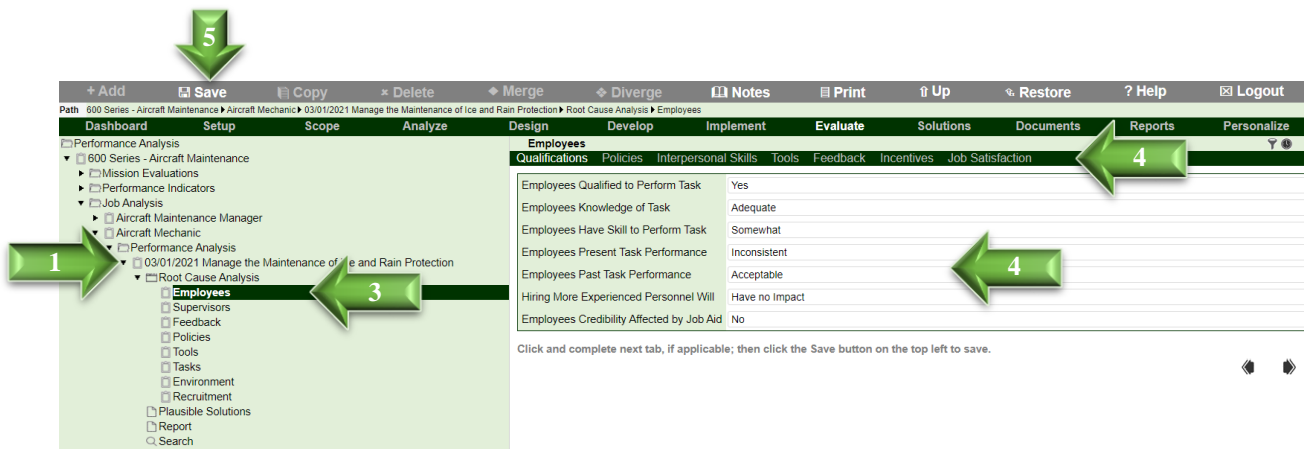
Step 1: Click on ► next to the  (objective) node to expand.

Step 2: Click on ► next to the  **Root Cause Analysis** folder to display the following eight (8) sections –  **Employees**,  **Supervisors**,  **Feedback**,  **Policies**,  **Tools**,  **Tasks**,  **Environment** and  **Recruitment**.

Step 3: Click on the  **Employees** node.

Step 4: Input Employees' related data such as [**Qualifications**] and adequacy of their Knowledge and Skills, understanding of [**Policies**], [**Interpersonal Skills**], dependency and access to [**Tools**], quality of [**Feedback**] received, attitude towards [**Incentives**] systems, and [**Job Satisfaction**] by clicking on the corresponding tabs.

Step 5: Click [**Save**].











The screenshot shows the software interface with the following elements:

- Toolbar:** + Add, Save, Copy, Delete, Merge, Diverge, Notes, Print, Up, Restore, Help, Logout.
- Path:** 600 Series - Aircraft Maintenance > Aircraft Mechanic > 03/01/2021 Manage the Maintenance of Ice and Rain Protection > Root Cause Analysis > Employees
- Navigation Menu:** Dashboard, Setup, Scope, Analyze, Design, Develop, Implement, Evaluate, Solutions, Documents, Reports, Personalize.
- Left Panel (Tree View):** Performance Analysis > 600 Series - Aircraft Maintenance > Mission Evaluations > Performance Indicators > Job Analysis > Aircraft Maintenance Manager > Aircraft Mechanic > Performance Analysis > 03/01/2021 Manage the Maintenance of Ice and Rain Protection > Root Cause Analysis > Employees (selected), Supervisors, Feedback, Policies, Tools, Tasks, Environment, Recruitment, Plausible Solutions, Report, Search.
- Right Panel (Employees - Qualifications Tab):**

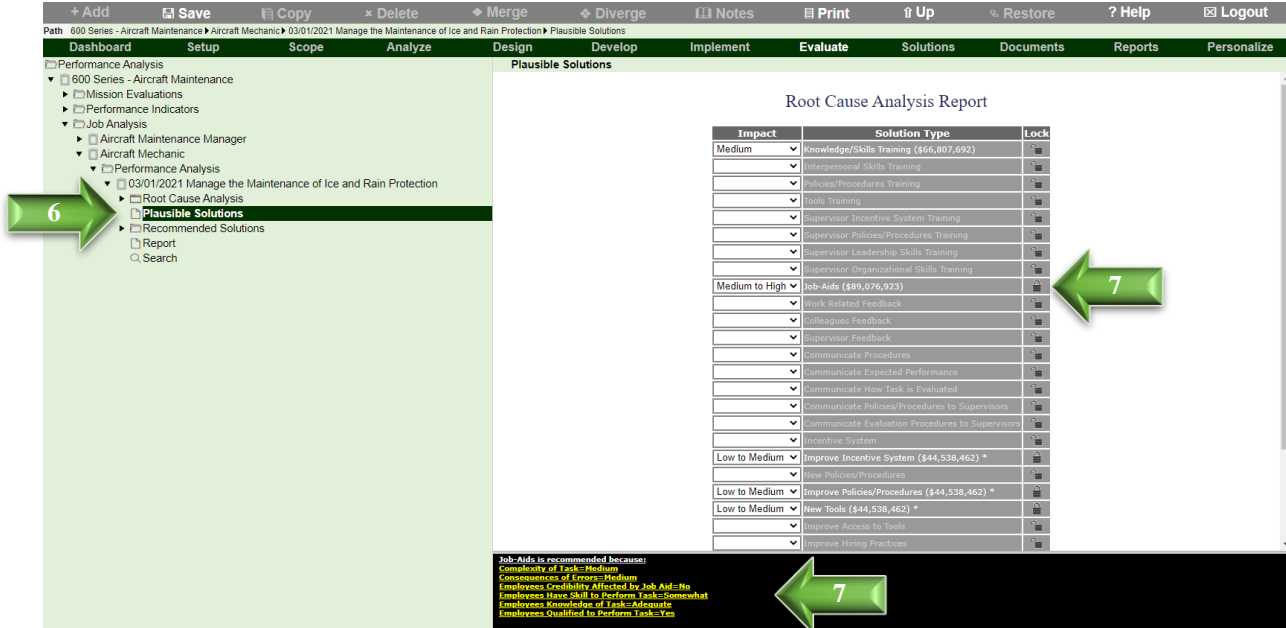
Qualifications	Policies	Interpersonal Skills	Tools	Feedback	Incentives	Job Satisfaction
Employees Qualified to Perform Task	Yes					
Employees Knowledge of Task	Adequate					
Employees Have Skill to Perform Task	Somewhat					
Employees Present Task Performance	Inconsistent					
Employees Past Task Performance	Acceptable					
Hiring More Experienced Personnel Will	Have no Impact					
Employees Credibility Affected by Job Aid	No					

Notes:

- Keep in mind that all questions are related to a specific Performance Objective.
- All fields under  **Supervisors**,  **Feedback**,  **Policies**,  **Tools**,  **Tasks**,  **Environment** and  **Recruitment** nodes should also be completed for an accurate assessment of plausible solutions.
- To facilitate data collection, six questionnaires have been provided in Annex A of the Performance Analysis User Guide. The forms may be completed during an interview or observation session, or handed out to participants to complete.

Step 6: Click the  **Plausible Solutions** node to view plausible solutions along with rating.

Step 7: To find out why a solution has been proposed, click on the solution title. The reasons, based on information provided, are presented at the bottom of the screen.





Root Cause Analysis Report

Impact	Solution Type	Lock
Medium	Knowledge/Skills Training (\$66,807,692)	<input type="checkbox"/>
	Interpersonal Skills Training	<input type="checkbox"/>
	Policies/Procedures Training	<input type="checkbox"/>
	Tools Training	<input type="checkbox"/>
	Supervisor Incentive System Training	<input type="checkbox"/>
	Supervisor Policies/Procedures Training	<input type="checkbox"/>
	Supervisor Leadership Skills Training	<input type="checkbox"/>
	Supervisor Organizational Skills Training	<input type="checkbox"/>
Medium to High	Job-Aids (\$89,076,923)	<input type="checkbox"/>
	Work Related Feedback	<input type="checkbox"/>
	Colleagues Feedback	<input type="checkbox"/>
	Supervisor Feedback	<input type="checkbox"/>
	Communicate Procedures	<input type="checkbox"/>
	Communicate Expected Performance	<input type="checkbox"/>
	Communicate How Task is Evaluated	<input type="checkbox"/>
	Communicate Policies/Procedures to Supervisors	<input type="checkbox"/>
	Communicate Evaluation Procedures to Supervisors	<input type="checkbox"/>
	Incentive System	<input type="checkbox"/>
Low to Medium	Improve Incentive System (\$44,538,462) *	<input type="checkbox"/>
	New Policies/Procedures	<input type="checkbox"/>
Low to Medium	Improve Policies/Procedures (\$44,538,462) *	<input type="checkbox"/>
Low to Medium	New Tools (\$44,538,462) *	<input type="checkbox"/>
	Improve Access to Tools	<input type="checkbox"/>
	Improve Hiring Practices	<input type="checkbox"/>

Job-Aids is recommended because:
 Complexity of Task: Medium
 Consequences of Errors: Medium
 Employees' Credibility Affected by Job Aid: No
 Employees Have Skill to Perform Task: Somewhat
 Employees Knowledge of Task: Adequate
 Employees Qualified to Perform Task: Yes

Notes:

- You may remove plausible solutions recommended by ADVISOR by setting their impact to blank (null) and locking  your selection; or recommending alternate solutions, by indicating their impact and locking  your selection. Click [Save] to update plausible solutions list.
- Plausible solutions may not necessarily be recommended. Final recommendations take into account the feasibility of implementing viable solutions as well as their cost.

Additional details can also be provided for Training, Job Aids, Policies and Tools as follows:

Step 8: Click on ► next to the **Recommended Solutions** folder to expand.

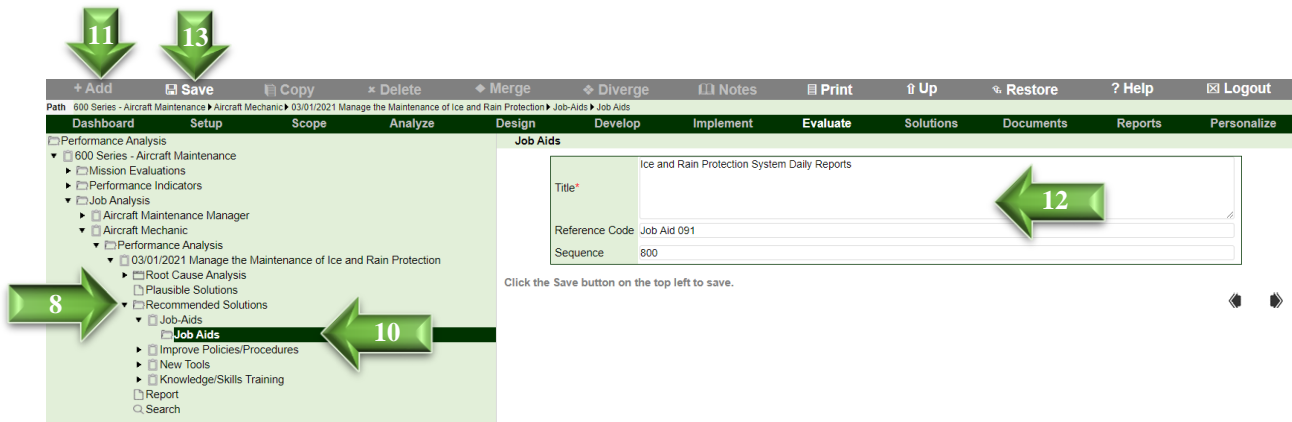
Step 9: Click on ► next to the **(Solution)** node, (**Job Aids**, for example) to expand.

Step 10: Click on the **(Solutions)** (**Job Aids**, for example) folder.

Step 11: Click **[Add]**.

Step 12: Input title and reference code.

Step 13: Click **[Save]** to create.



The screenshot shows the software interface with a navigation tree on the left and a form on the right. The tree is expanded to 'Job Aids'. The form contains the following fields:

- Title: Ice and Rain Protection System Daily Reports
- Reference Code: Job Aid 091
- Sequence: 800

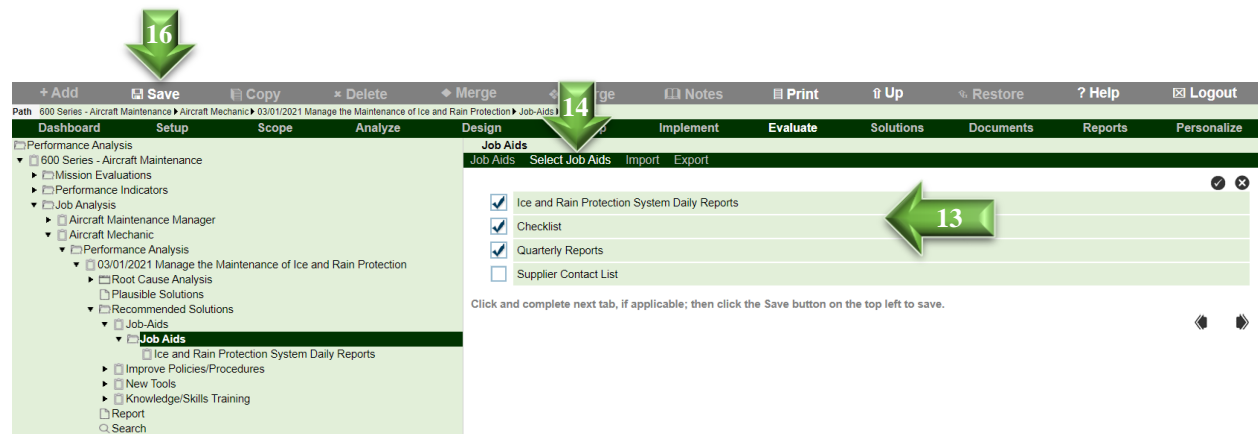
Buttons for '+ Add', 'Save', 'Copy', 'Delete', 'Merge', 'Diverge', 'Notes', 'Print', 'Up', 'Restore', 'Help', and 'Logout' are visible at the top. A message below the form says: 'Click the Save button on the top left to save.'

To display existing Job Aids for this Objective:

Step 14: Click on the **[Select Job Aids]** tab.

Step 15: Place checkmarks next to desired Job Aids - i.e., job aids needed by employees to perform the Task (Objective).

Step 16: Click **[Save]** to display selected Job Aids under the **Job Aids** folder.



The screenshot shows the software interface with the 'Select Job Aids' tab selected. The list of Job Aids is as follows:

Job Aids	Select
Ice and Rain Protection System Daily Reports	<input checked="" type="checkbox"/>
Checklist	<input checked="" type="checkbox"/>
Quarterly Reports	<input checked="" type="checkbox"/>
Supplier Contact List	<input type="checkbox"/>

Buttons for '+ Add', 'Save', 'Copy', 'Delete', 'Merge', 'Diverge', 'Notes', 'Print', 'Up', 'Restore', 'Help', and 'Logout' are visible at the top. A message below the list says: 'Click and complete next tab, if applicable; then click the Save button on the top left to save.'

Chapter 2: Assess Viability of Solutions

2.1 Setup Plausible Solutions

Plausible solutions viability can be determined by examining compatibility with existing systems, money and resource requirements as well as management, supervisors and employees attitudes towards the proposed solutions. With costs and potential benefits in hand, anticipated return on investment (ROI) from each solution can be calculated. Training solutions are setup under the **Design** tab (please refer to Media Analysis Step by Step Guide or Training Design User Guide) and non-training solutions under the **Solutions** tab. To setup a non-training solution:

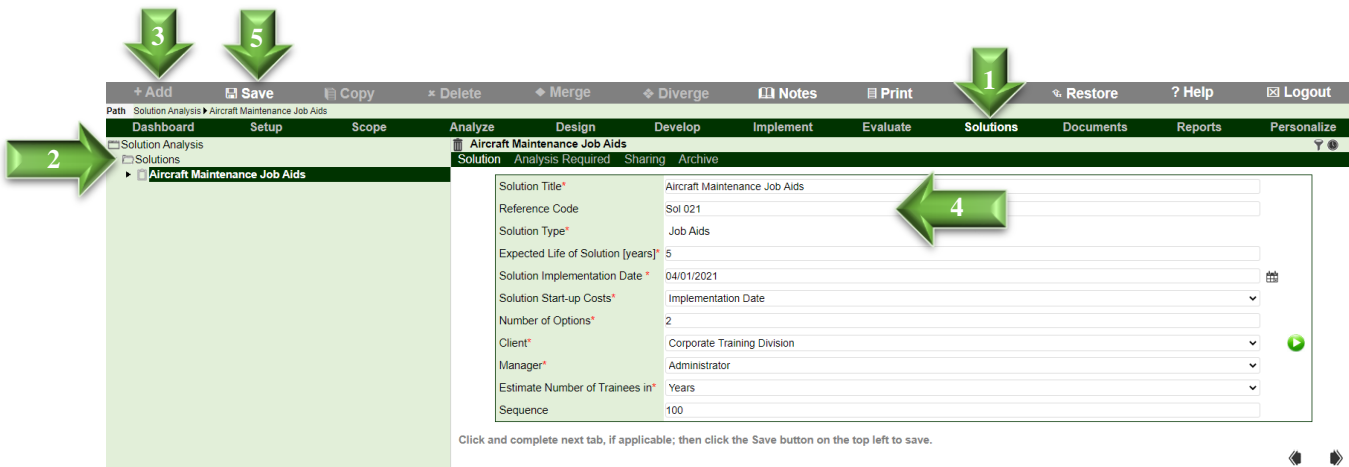
Step 1: Click on the **Solutions** tab.

Step 2: Click on the **Solutions** folder.

Step 3: Click **[Add]**.

Step 4: Input general information, such as Solution Title, Solution Type, Expected Life, etc. Data required by ADVISOR is identified by a red asterisk (*). Of course, the more data you provide, the better the results.

Step 5: Click on the **[Save]** button to create the Solution.



The screenshot shows the software interface with the following elements:


- Step 1:** The 'Solutions' tab is selected in the top navigation bar.
- Step 2:** The 'Aircraft Maintenance Job Aids' folder is selected in the left sidebar.
- Step 3:** The '+ Add' button is highlighted in the top toolbar.
- Step 4:** A form for creating a new solution is displayed with the following fields:

Solution Title*	Aircraft Maintenance Job Aids
Reference Code	Sol 021
Solution Type*	Job Aids
Expected Life of Solution [years]*	5
Solution Implementation Date *	04/01/2021
Solution Start-up Costs*	Implementation Date
Number of Options*	2
Client*	Corporate Training Division
Manager*	Administrator
Estimate Number of Trainees in*	Years
Sequence	100
- Step 5:** The 'Save' button is highlighted in the top toolbar.

Notes:

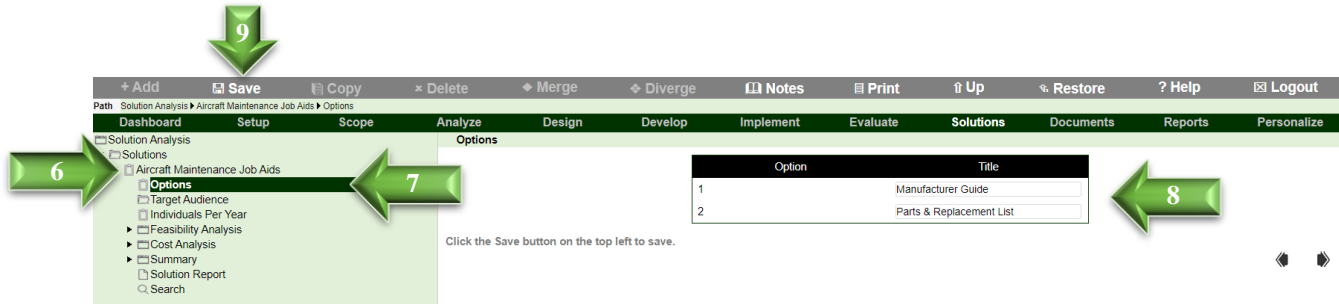
- Each solution can be archived as many times as you need. Once archived, changes to the current analysis will not impact data in archived versions. To archive an analysis, click on the **[solution title]** node, then click on the **[Archive]** tab, input the Version Title and click **[Save]**. The date on which the archive was created is automatically saved with the Version Title.
- A list of archived versions is available under the **[View]** tab. You may view an archived version in read only mode by placing checkmark next to its title and clicking **[Save]**. You can delete as well as recover an archived version (i.e., overwrite existing version) by selecting corresponding tabs. Of course, if a solution is deleted, all archived versions of the solution are automatically deleted as well.
- You may also share your analysis with colleagues (i.e., Users assigned to the same Client) by clicking on the Sharing tab, placing checkmarks next to their names and clicking **[Save]**.

Step 6: Click ► next to the  (solution title) node to expand.

Step 7: Click on the  Options node.

Step 8: Input the title for each option.

Step 9: Click [Save].



The screenshot shows the software interface with the 'Options' node expanded. A table with two rows is visible, with arrows indicating steps 6, 7, and 8.

Option	Title
1	Manufacturer Guide
2	Parts & Replacement List

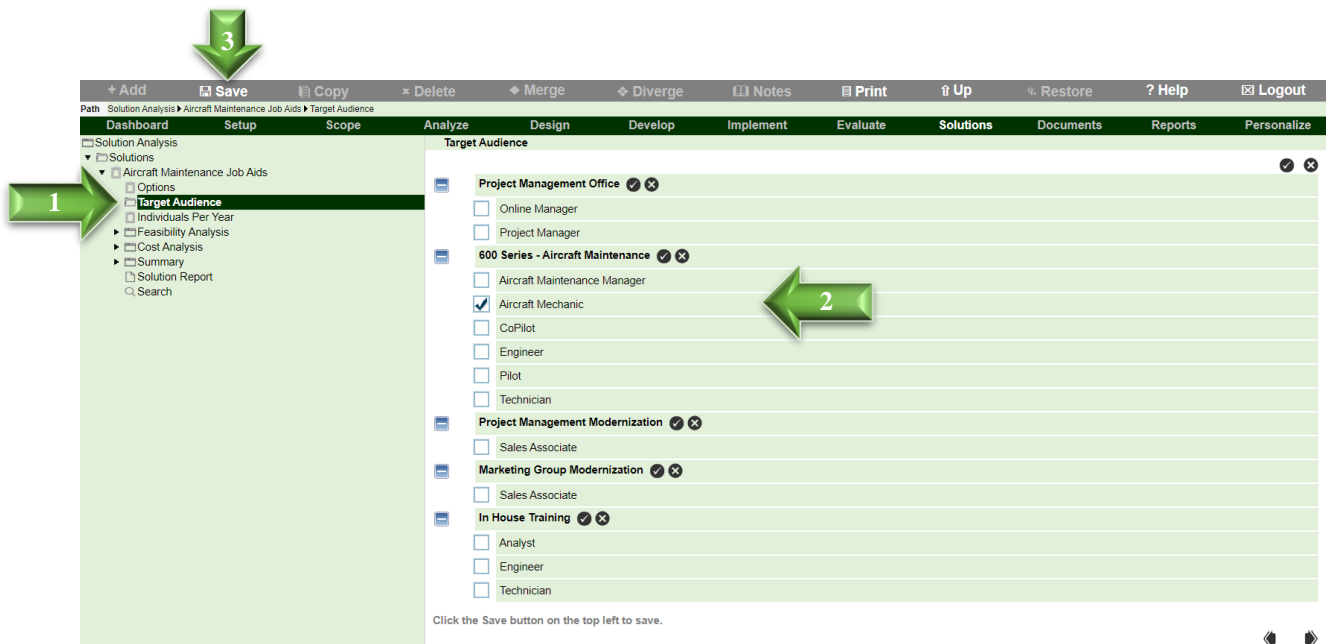
2.2 Define Target Audience

If Jobs (Occupations) have been defined under the **Analyze** tab under the  Job Analysis folder, a  Target Audience folder will appear. To select the Target Audience for this solution:

Step 1: Click on the  Target Audience folder.

Step 2: Place checkmarks next to appropriate jobs.

Step 3: Click [Save].



The screenshot shows the software interface with the 'Target Audience' folder expanded. A list of jobs is visible, with arrows indicating steps 1, 2, and 3.

Job	Selected
Project Management Office	<input checked="" type="checkbox"/>
Online Manager	<input type="checkbox"/>
Project Manager	<input type="checkbox"/>
600 Series - Aircraft Maintenance	<input checked="" type="checkbox"/>
Aircraft Maintenance Manager	<input type="checkbox"/>
Aircraft Mechanic	<input checked="" type="checkbox"/>
CoPilot	<input type="checkbox"/>
Engineer	<input type="checkbox"/>
Pilot	<input type="checkbox"/>
Technician	<input type="checkbox"/>
Project Management Modernization	<input checked="" type="checkbox"/>
Sales Associate	<input type="checkbox"/>
Marketing Group Modernization	<input checked="" type="checkbox"/>
Sales Associate	<input type="checkbox"/>
In House Training	<input checked="" type="checkbox"/>
Analyst	<input type="checkbox"/>
Engineer	<input type="checkbox"/>
Technician	<input type="checkbox"/>

To associate the current Solution with a plausible solution (identified under the **Plausible Solutions** node under an **(objective)**, Section 1.7) – in other words to indicate that this Solution will close the identified performance gap for this Job:

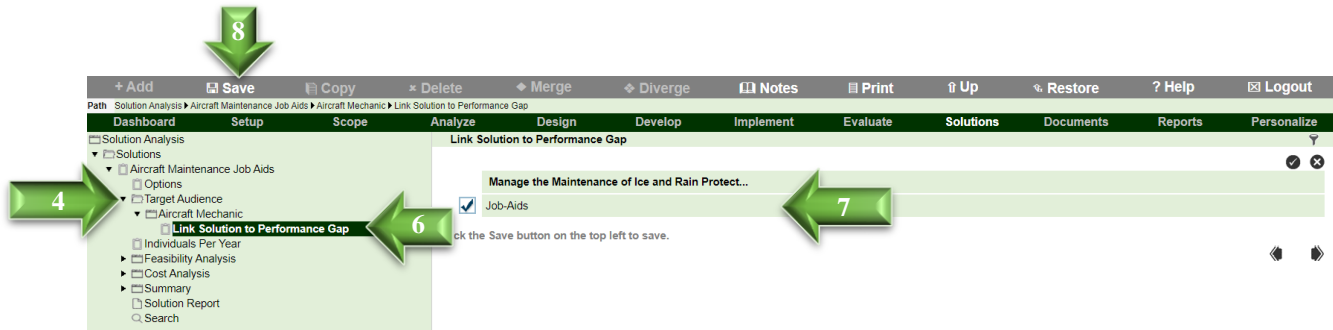
Step 4: Click on ► next to the **Target Audience** folder to expand.

Step 5: Click on ► next to the **(Selected Target Audience)** folder to expand.

Step 6: Click on **Link Solution to Performance Gap** node.

Step 7: Select relevant solutions. Only Plausible Solutions that match current Solution Type are presented.

Step 8: Click [Save].



8

4

6

7

Path: Solution Analysis > Aircraft Maintenance Job Aids > Aircraft Mechanic > Link Solution to Performance Gap

Dashboard Setup Scope Analyze Design Develop Implement Evaluate Solutions Documents Reports Personalize

Solution Analysis

Solutions

- Aircraft Maintenance Job Aids
 - Options
 - Target Audience
 - Aircraft Mechanic
 - Link Solution to Performance Gap**
 - Individuals Per Year
 - Feasibility Analysis
 - Cost Analysis
 - Summary
 - Solution Report
 - Search

Manage the Maintenance of Ice and Rain Protect...

Job-Aids

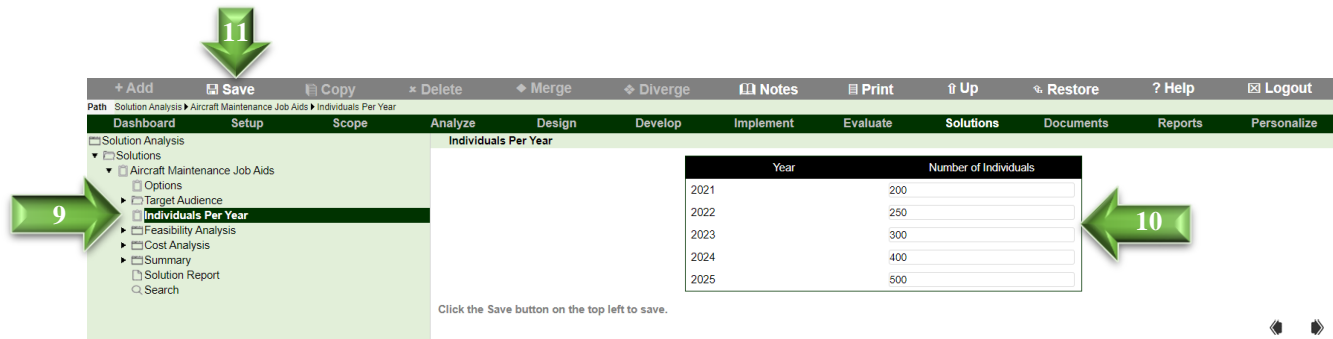
Click the Save button on the top left to save.

To indicate the number of individuals that require this solution:

Step 9: Click on the **Individuals per Year** node.

Step 10: Input the number of individuals that require this solution for each year.

Step 11: Click [Save].



11

9

10

Path: Solution Analysis > Aircraft Maintenance Job Aids > Individuals Per Year

Dashboard Setup Scope Analyze Design Develop Implement Evaluate Solutions Documents Reports Personalize

Solution Analysis

Solutions

- Aircraft Maintenance Job Aids
 - Options
 - Target Audience
 - Aircraft Mechanic
 - Individuals Per Year
 - Feasibility Analysis
 - Cost Analysis
 - Summary
 - Solution Report
 - Search

Year	Number of Individuals
2021	200
2022	250
2023	300
2024	400
2025	500






Click the Save button on the top left to save.


Notes:

- If required, the projections can be refined further by indicating the number of individuals that require the Solution in each month by selecting the Months option under **Estimate Number of Employees in** field under the **(solution)** node.
- Changes are automatically tracked by ADVISOR including who made the change and when. History of Changes Report can be generated by clicking the History icon in the top right corner.

2.3 Assess the Effectiveness of Plausible Solutions

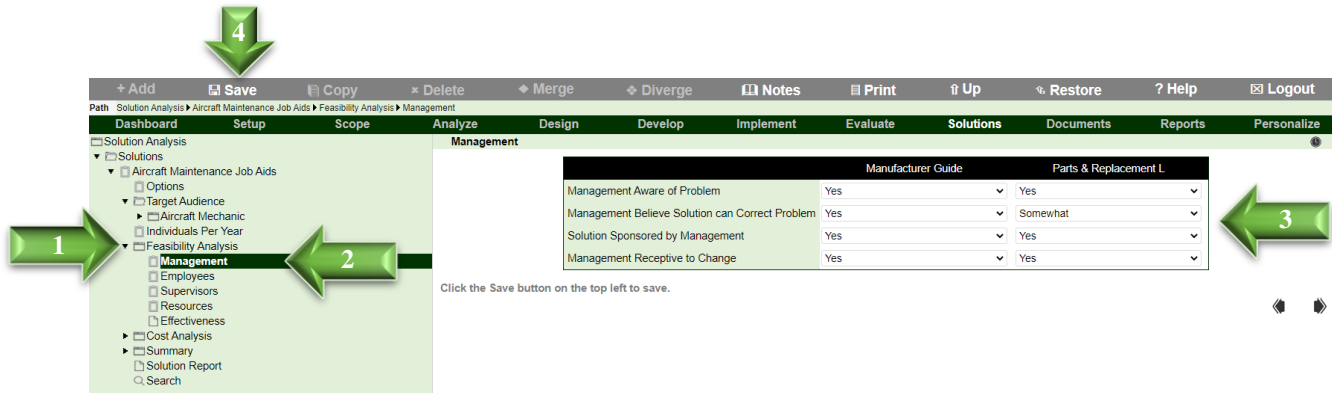
To assess the viability of plausible solutions:

Step 1: Click on ► next to  **Feasibility Analysis** folder to display the following sections:  **Management**,  **Employees**,  **Supervisors**, and  **Resources**.

Step 2: To indicate management awareness and support to Solutions, click on the  **Management** node.

Step 3: Complete applicable fields.

Step 4: Click [Save].



The screenshot shows the software interface with a sidebar on the left and a main content area on the right. A green arrow labeled '1' points to the 'Feasibility Analysis' folder in the sidebar. A green arrow labeled '2' points to the 'Management' folder under 'Feasibility Analysis'. A green arrow labeled '3' points to a form in the main content area. A green arrow labeled '4' points to the 'Save' button at the top of the interface.

	Manufacturer Guide	Parts & Replacement L
Management Aware of Problem	Yes	Yes
Management Believe Solution can Correct Problem	Yes	Somewhat
Solution Sponsored by Management	Yes	Yes
Management Receptive to Change	Yes	Yes

Click the Save button on the top left to save.

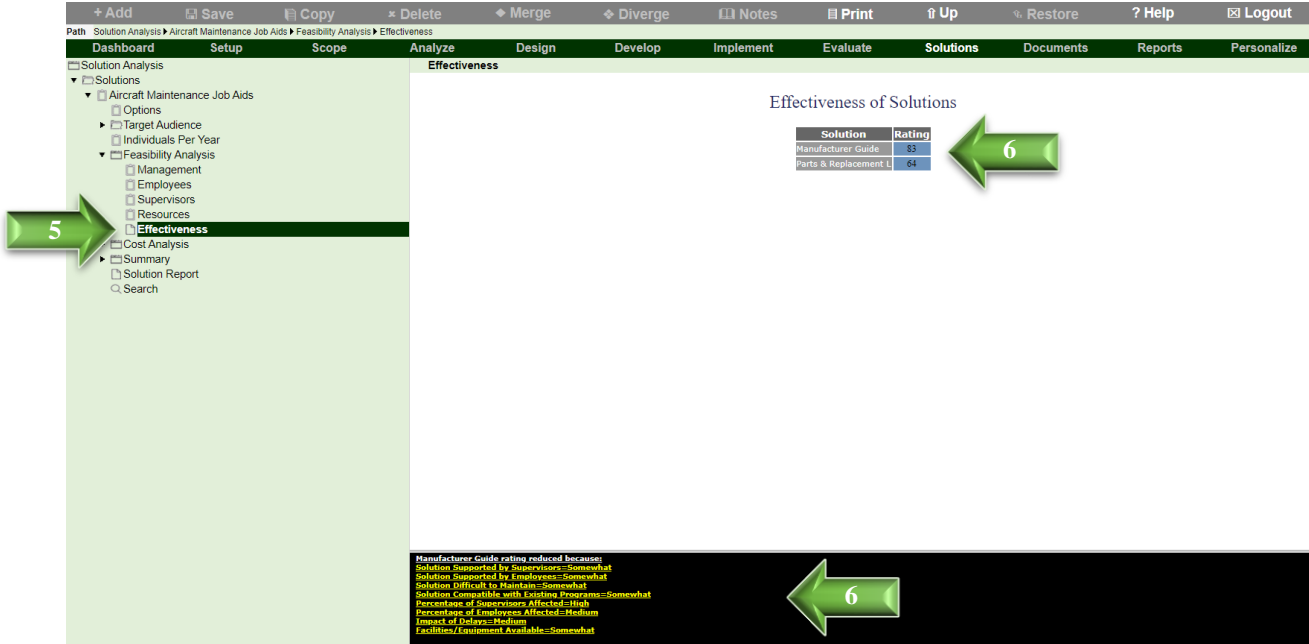
Note:

➤ The same process should be repeated for  **Employees**,  **Supervisors** and  **Resources** nodes.

To view the effectiveness of plausible solutions:

Step 5: Click the  **Effectiveness** node.

Step 6: Click on the Solution Title to find out why a solution is not recommended or why its effectiveness has been reduced. The reasons, based on information provided, are presented at the bottom of the screen.



Path: Solution Analysis > Aircraft Maintenance Job Aids > Feasibility Analysis > Effectiveness

Dashboard Setup Scope Analyze Design Develop Implement Evaluate Solutions Documents Reports Personalize

Solution Analysis

- Solutions
 - Aircraft Maintenance Job Aids
 - Options
 - Target Audience
 - Individuals Per Year
 - Feasibility Analysis
 - Management
 - Employees
 - Supervisors
 - Resources
 - Effectiveness**
 - Cost Analysis
 - Summary
 - Solution Report
 - Search

Effectiveness of Solutions

Solution	Rating
Manufacturer Guide	83
Parts & Replacement L	64

Manufacturer Guide rating reduced because:
 Solution Supported by Supervisors=Somewhat
 Solution Supported by Employees=Somewhat
 Solution Difficult to Maintain=Somewhat
 Solution Compatible with Existing Programs=Somewhat
 Percentage of Supervisors Affected=High
 Percentage of Employees Affected=Medium
 Impact of Delay=Medium
 Facilities/Equipment Available=Somewhat

Note:

- A 100% rating indicates a perfect match - i.e., the proposed Solution is well aligned with management, employees, supervisors and organizational needs/expectations. A 0% rating indicates that the proposed Solution does not meet one or more critical requirements.

2.4 Forecast the Costs of Plausible Solutions

To forecast the costs of plausible solutions, including design, development, hardware, software, administrative, management, maintenance and support costs:

Step 1: Click on ► next to **Cost Analysis** folder to display the following nodes: **Basic Variables**, **Development**, **Hardware**, **Software**, **Administrative**, **Management**, and **Support**.

Step 2: Click the **Development** node.

Step 3: Input relevant data. You do not have to complete all fields but of course, the more data you provide the better the results.

Step 4: Click **[Save]** to automatically compute costs based on inputs.




The screenshot shows the software interface with the following elements:

- Top Menu:** + Add, Save, Copy, Delete, Merge, Diverge, Notes, Print, Up, Restore, Help, Logout.
- Path:** Solution Analysis > Aircraft Maintenance Job Aids > Cost Analysis > Development
- Navigation Tabs:** Dashboard, Setup, Scope, Analyze, Design, Develop, Implement, Evaluate, Solutions, Documents, Reports, Personalize.
- Left Sidebar:** Solution Analysis, Solutions, Aircraft Maintenance Job Aids, Options, Target Audience, Individuals Per Year, Feasibility Analysis, Cost Analysis (expanded), Basic Variables, **Development** (selected), Hardware, Software, Administrative, Management, Support, Summary, Summary Report, Search.
- Main Content Area:** Development form with two columns: Manufacturer Guide and Parts & Replacement L.

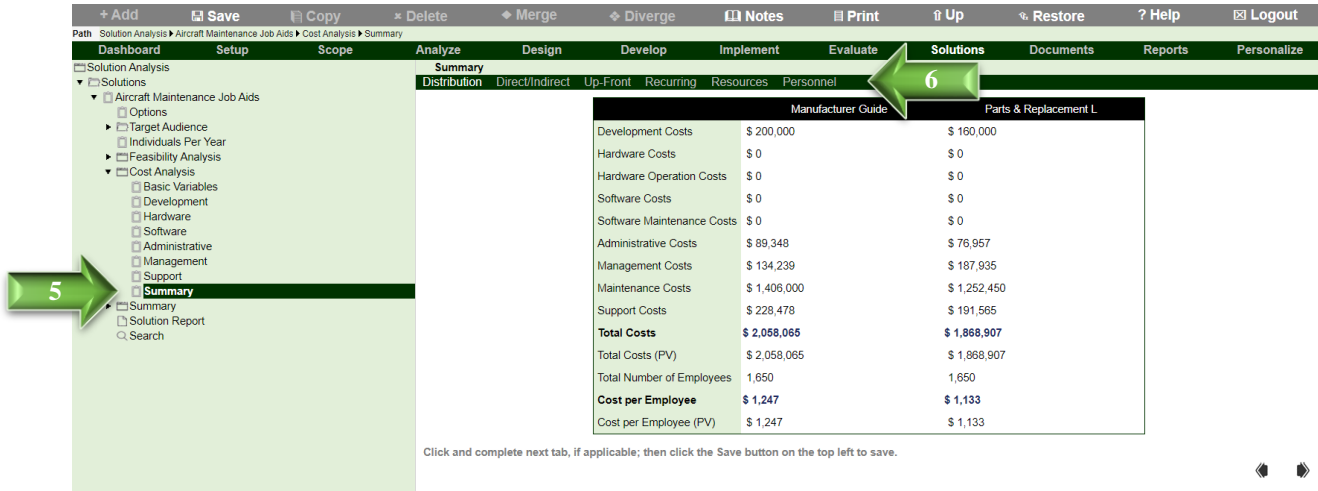
	Manufacturer Guide	Parts & Replacement L
Total Development Time [hours]	0	0
Average Daily Cost for Developer	\$ 0	\$ 0
Total Personnel Cost	\$ 0	\$ 0
Unit Cost of Off-the-Shelf Solution	\$ 1,000	\$ 800
Number of Items Required	200	200
Total Cost of Off-the-Shelf Solution	\$ 200,000	\$ 160,000
Contracting Costs	\$ 0	\$ 0
Master Copy Production	\$ 0	\$ 0
Evaluation Costs	\$ 0	\$ 0
Miscellaneous Costs	\$ 0	\$ 0
Total Development Costs	\$ 200,000	\$ 160,000
- Bottom:** Click the Save button on the top left to save.

Notes:

- Similar process can be used to forecast and compute **Hardware**, **Software**, **Administrative**, **Management**, and **Support** costs, as needed.
- To classify a cost as Direct (out of pocket expense) or Indirect (personnel/resource required), click on the **D** or **I** button next to the field to toggle between the two.
- Clarification for each field as well as the impact of the response on the results can be viewed by clicking on **[Help]**.
- Data can only be entered in active cells. Data from previous entries or results are presented in read only mode. To change the value of a read only cell, **Total Personnel Costs**, for example, you would have to edit the fields used to compute this value, namely **Total Development Time [hours]** or **Average Daily Cost for Developer**.

Step 5: Click on the  **Summary** node to view a detailed breakdown of the costs of plausible solutions over solution life (including inflation), present value, as well as the cost per employee, under the **[Distribution]** tab.

Step 6: To view **[Direct]** (out of pocket) costs, **[Indirect]** (personnel/resource related) costs, **[Upfront]**¹ and **[Recurring]** costs as well as **[Personnel]** and **[Resources]** required to design, develop, administer, maintain and support the solution, click on the corresponding tabs.



The screenshot shows the software interface with the following elements:

- Top Menu:** + Add, Save, Copy, Delete, Merge, Diverge, Notes, Print, Up, Restore, Help, Logout.
- Navigation Tabs:** Dashboard, Setup, Scope, Analyze, Design, Develop, Implement, Evaluate, Solutions, Documents, Reports, Personalize.
- Left Sidebar (Tree View):**
 - Solution Analysis
 - Solutions
 - Aircraft Maintenance Job Aids
 - Options
 - Target Audience
 - Individuals Per Year
 - Feasibility Analysis
 - Cost Analysis
 - Basic Variables
 - Development
 - Hardware
 - Software
 - Administrative
 - Management
 - Support
 - Summary** (highlighted with a green arrow labeled '5')
 - Summary
 - Solution Report
 - Search

- Main Window (Summary Table):**
- Summary tabs: Distribution, Direct/Indirect, Up-Front, Recurring, Resources, Personnel. The **Distribution** tab is selected (highlighted with a green arrow labeled '6').
- Table with columns: Manufacturer Guide, Parts & Replacement L.

Click and complete next tab, if applicable; then click the Save button on the top left to save.

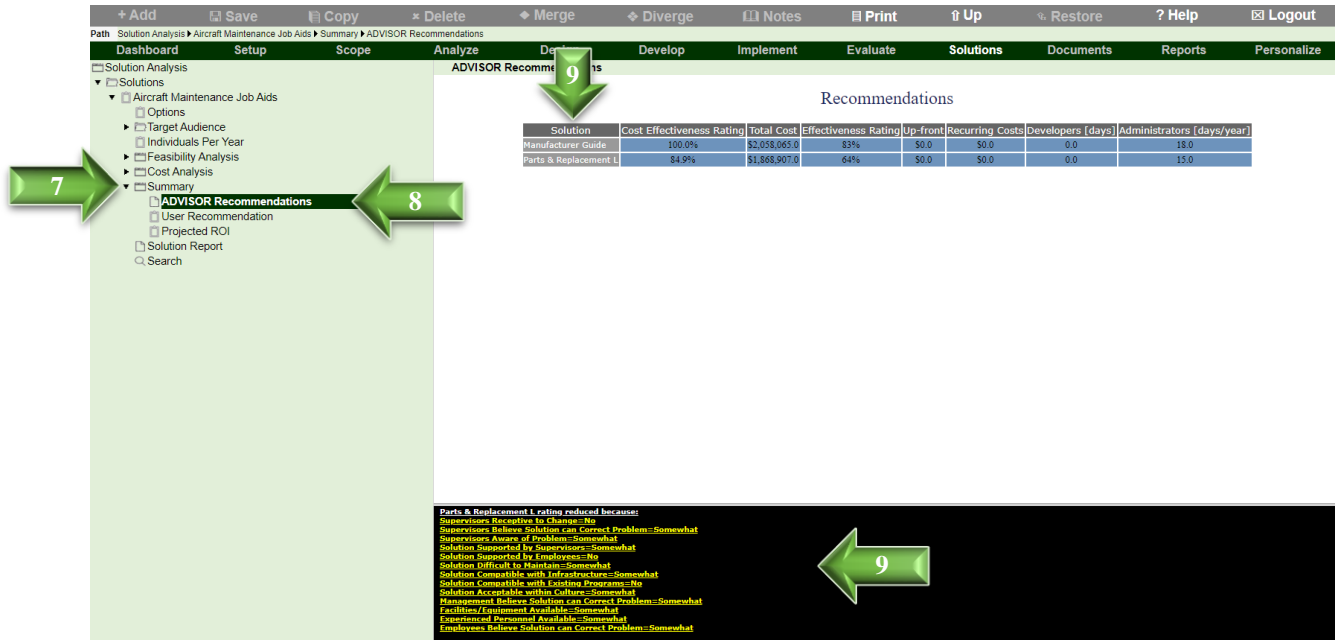
¹ Upfront or startup costs represent the initial monetary outlay to launch the solution.

ADVISOR automatically rates plausible solutions from most to least favorable. For each option, key data is presented, including: rating (how well did the solution meet management, employees, supervisors and organizational needs), Direct Up-front and Recurring Costs, as well as required resources (i.e., Developers and Administrators). To view the ratings for plausible solutions:

Step 7: Click on ► next to the Summary folder to expand.

Step 8: Click on the ADVISOR Recommendations node.

Step 9: Click on the solution title, to find out why the rating of a solution has been reduced. The reasons, based on information provided, are presented at the bottom of the screen.



The screenshot shows the 'ADVISOR Recommendations' window. The left sidebar has a tree view with 'Summary' expanded and 'ADVISOR Recommendations' selected. The main area displays a table of recommendations:

Solution	Cost Effectiveness Rating	Total Cost	Effectiveness Rating	Up-front	Recurring Costs	Developers (days)	Administrators (days/year)
Manufacturer Guide	100.0%	\$2,058,065.0	83%	\$0.0	\$0.0	0.0	18.0
Parts & Replacement L	84.9%	\$1,868,907.0	64%	\$0.0	\$0.0	0.0	15.0

Below the table, a detailed reason for the rating reduction for 'Parts & Replacement L' is shown:

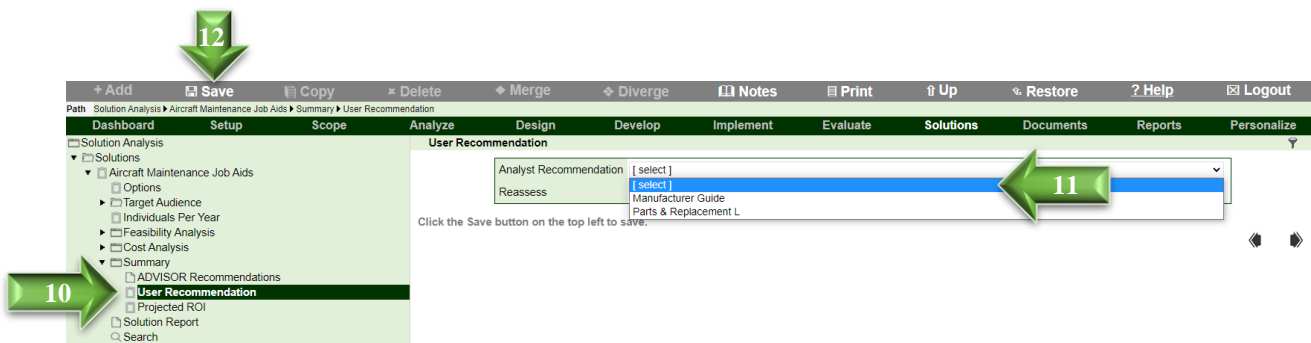
Parts & Replacement L rating reduced because:
 Supervisors Responsive to Change: No
 Supervisors Believe Solution can Correct Problem: Somewhat
 Supervisors Aware of Problem: Somewhat
 Solution Supported by Supervisors: Somewhat
 Solution Supported by Employees: No
 Solution Difficult to Maintain: Somewhat
 Solution Compatible with Infrastructure: Somewhat
 Solution Compatible with Existing Programs: No
 Solution Acceptable within Culture: Somewhat
 Management Believe Solution can Correct Problem: Somewhat
 Facilities/Equipment Available: Somewhat
 Experienced Personnel Available: Somewhat
 Employees Believe Solution can Correct Problem: Somewhat

Once you have examined the effectiveness and costs of plausible solutions, you can select the option that best meets your needs, as follows:

Step 10: Click on the User Recommendation node.

Step 11: Select the desired Solution.

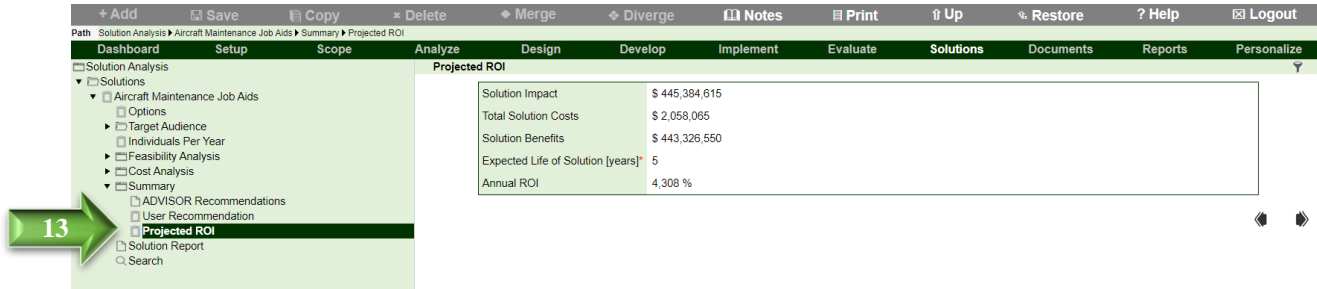
Step 12: Click [Save].



The screenshot shows the 'User Recommendation' window. The left sidebar has 'User Recommendation' selected. The main area shows a dropdown menu with 'Parts & Replacement L' selected. The 'Save' button is highlighted in the top left corner.

ADVISOR automatically calculates the Return on Investment (ROI) of user recommended solution based on its projected impact on relevant Objectives, Tasks and in-turn unit/organization missions/goals. To view the ROI:

Step 13: Click on the  **Projected ROI** node.



The screenshot shows the software interface with a top menu bar containing options like + Add, Save, Copy, Delete, Merge, Diverge, Notes, Print, Up, Restore, Help, and Logout. Below the menu is a breadcrumb path: Solution Analysis > Aircraft Maintenance Job Aids > Summary > Projected ROI. The main interface is divided into a left sidebar and a main content area. The sidebar has a tree view with nodes such as Solutions, Aircraft Maintenance Job Aids, Options, Target Audience, Individuals Per Year, Feasibility Analysis, Cost Analysis, Summary, ADVISOR Recommendations, User Recommendation, **Projected ROI** (highlighted with a green arrow and the number 13), Solution Report, and Search. The main content area displays a table titled 'Projected ROI' with the following data:

Solution Impact	\$ 445,384,615
Total Solution Costs	\$ 2,058,065
Solution Benefits	\$ 443,326,550
Expected Life of Solution [years]*	5
Annual ROI	4,308 %

Note:

- In addition to forecasting and comparing the costs of plausible solutions, the Cost Analysis module provides insight on how funds and resources are allocated. For example, how much funds are required to develop a solution or purchase the necessary hardware, how many working days will be required to support employees, etc. You may also run what if scenarios such as developing solution internally versus externally, for example, to determine impact on budget and resources.

Chapter 3: Generate Reports

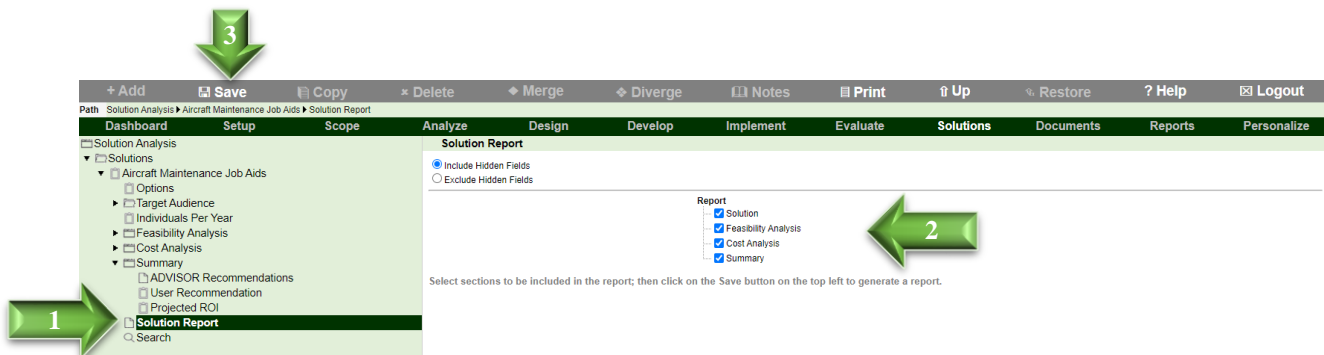
3.1 Generate Solution Report

A comprehensive business case report that documents the process used to rate the effectiveness and compute the costs of plausible solutions can be generated as follows:

Step 1: Click on the  **Solution Report** node.

Step 2: Select items to be included.

Step 3: Click **[Save]**.



The report is presented in html format, in a new window. You may print or save the report using the corresponding functions in your Browser. Since the report is in html format, you can quickly advance to any section by clicking on the corresponding title in the Table of Contents.

Step 4: To generate the report in Word click on **[Generate Word Doc]** button (top left corner).

Step 5: To return to ADVISOR, close the Solution Report window.



Solution Report

Aircraft Maintenance Job Aids

Solution Manager: Administrator
Prepared by: Administrator
Date: 04 August 2020 11:58 AM
Currency: Canadian Dollar

Table of Contents

- Solution
 - solution
 - Solution
 - Archive
 - View
 - Delete
 - Recover
 - Options
 - Target Audience
 - Aircraft Mechanic
 - Link Solution to Performance Gap
 - Individuals Per Year
 - Individuals Per Year
- Feasibility Analysis
 - Feasibility Analysis
 - Management
 - Employees
 - Supervisors
 - Resources
 - Limitations
 - Implications

3.2 Identify Actions Needed to Meet Goals

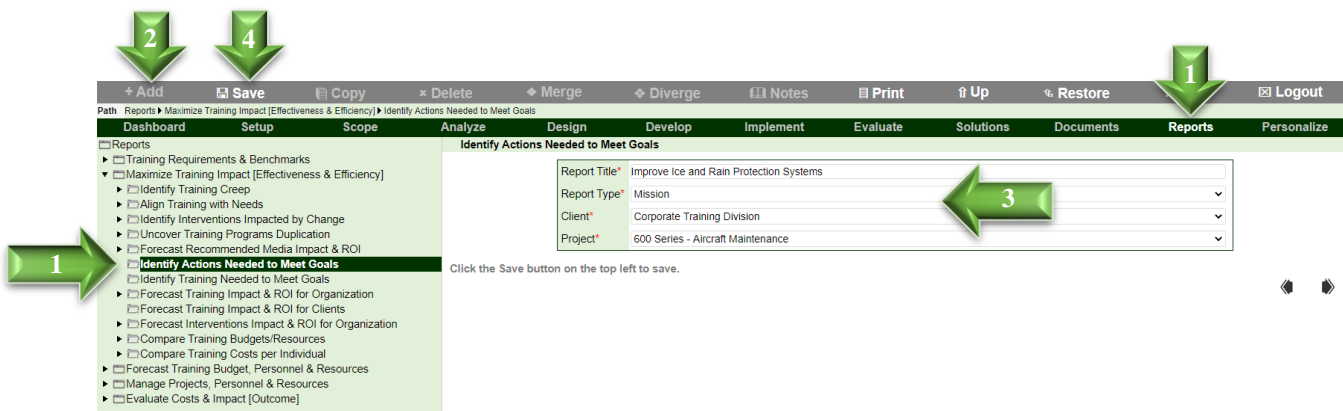
To identify interventions (training and non-training solutions) needed to meet current, emerging and future challenges (i.e., achieve Missions/Goals) including impact, costs, benefits and return on investment (ROI). The interventions can be identified for a specific Mission/Goal or a specific Task (Performance Objective) for a particular Job. To generate a report:

Step 1: Click on the [Reports] tab, click on ► next to the **Maximize Training Impact [Effectiveness & Efficiency]** folder to expand, and click on the **Identify Actions Needed to Meet Goals** folder.

Step 2: Click [Add].

Step 3: Input the Report Title, Report Type (i.e., Mission or Job Profile), Client that the report is assigned to, as well as the Project under investigation.

Step 4: Click [Save] to advance to the next screen.

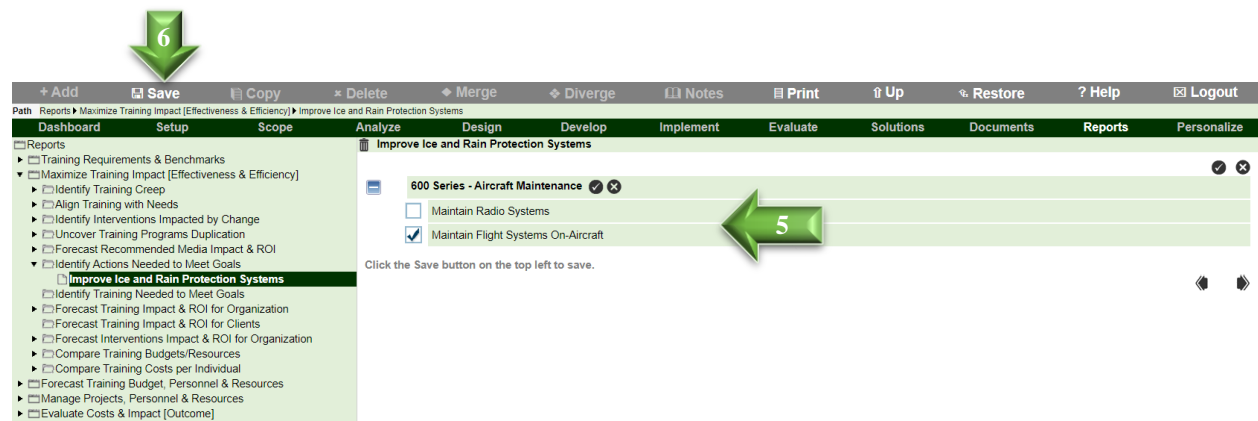


The screenshot shows the software interface with the following elements:

- Step 1:** The 'Reports' tab is selected in the top navigation bar.
- Step 2:** The 'Save' button is highlighted in the top toolbar.
- Step 3:** The 'Identify Actions Needed to Meet Goals' folder is expanded in the left sidebar. The report form is filled with:
 - Report Title: Improve Ice and Rain Protection Systems
 - Report Type: Mission
 - Client: Corporate Training Division
 - Project: 600 Series - Aircraft Maintenance
- Step 4:** The 'Save' button is highlighted in the top toolbar.

Step 5: Place checkmarks next to the required Missions/Goals or Job Tasks, to identify actions needed to attain the Mission/Goal or Job Task.

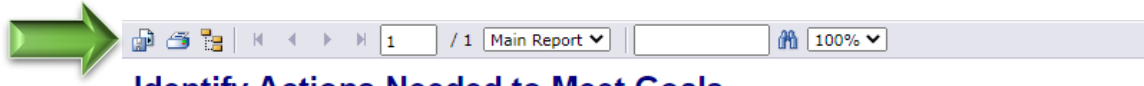
Step 6: Click [Save] to generate.



The screenshot shows the software interface with the following elements:

- Step 5:** The 'Improve Ice and Rain Protection Systems' folder is expanded in the left sidebar. The report form shows:
 - 600 Series - Aircraft Maintenance (checked)
 - Maintain Radio Systems (unchecked)
 - Maintain Flight Systems On-Aircraft (checked)
- Step 6:** The 'Save' button is highlighted in the top toolbar.

The report is presented in a new window. You may export the report to other file formats such as MS Word, PDF, or print by clicking on the corresponding icon in the top left corner of the screen. To return to ADVISOR, close the Report window.



Identify Actions Needed to Meet Goals

Prepared by: Administrator
Date: August 04, 2020
Delivery Option: Recommended



Division: 600 Series - Aircraft Maintenance


Job Profile	Performance Objective	Recommended Solutions	Solution Impact on Goal
Mission: Maintain Flight Systems On-Aircraft			
Aircraft Mechanic	Manage the Maintenance of Ice and Rain Protection	Improve Incentive System	15.38%
		Improve Policies/Procedures	15.38%
		Job-Aids	30.77%
		Knowledge/Skills Training	23.08%
		New Tools	15.38%

Recommended Solutions that have not been analyzed are dimmed. To find out the costs, impact, benefits and return on investment (ROI) of a plausible Solution, click on corresponding title **Job Aids** for example.



Solution / Course	Total Cost	Impact	Benefit	ROI
Aircraft Maintenance Job Aids	\$ 2,058,065	\$ 445,384,615	\$ 443,326,550	4,308.00%

* Solution / Course Title Dimmed = incomplete

Remember that context sensitive help is also available for each screen by clicking on **[Help]** and video clips on how to perform specific functions by clicking on the video  icon.

Enjoy!

