

# Tango™ Advanced Case Closure

Many Tango users have requested the ability to enter information at the closure of a Condition Case. At case closure the repair has been validated and more is known about the equipment problem, cost of repair, and failure details, than when the condition entries were written.

This new function adds valuable reliability information intended to help you extend the life of equipment and validate the savings derived from your reliability program. Entering this information is not required, and you may simply click the 'Close Condition Case' button at the bottom of the page to continue without entering any information.

This new feature is turned off by default. If you would like Advanced Case Closure turned on for your database, contact Chris Tyler at [chris.tyler@tf7.com](mailto:chris.tyler@tf7.com) or call 24/7 at 1-865-681-0282.

Note: We recommend closing the Asset Tree view by clicking the icon on the top toolbar. This will provide a wider view and ensure all options can be seen clearly.



## Features of Advanced Case Closure:

1. **Condition Entries and Condition Case Details**
2. **Fault Findings**
3. **Predictive Maintenance Outcome**
4. **Closing Comments**
5. **Avoided Cost**
6. **Linked Documents**

# 1. Condition Entries and Condition Case Details

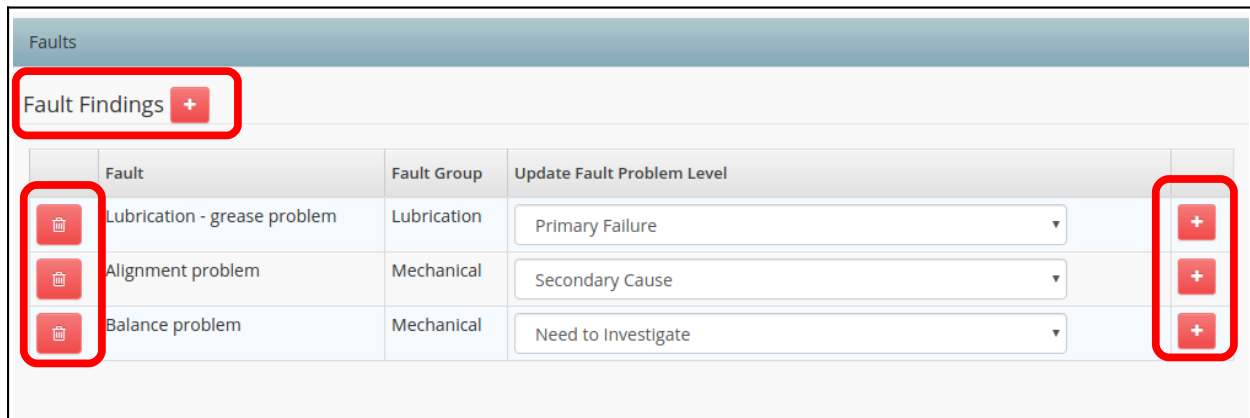
The screenshot displays a web interface for 'Condition Entry Case Closure'. At the top, there is a dark grey header with the text 'Condition Entry Case Closure'. Below this is a light blue bar labeled 'Condition Entries In Case'. A white box contains a tab labeled 'Condition Entry 1', which is highlighted with a red rectangular border. Below the tab is a light blue bar with 'Case ID: 2275'. A dark grey box contains the text 'TAYLOR CREEK PLANT >> BLOWER BLDG >> AERATION' and 'Entered: Apr 09, 2019', with 'BLOWER #2 >> 016488 - MOTOR, AC' on the line below. At the bottom left of the white box is a red button labeled 'Condition Case Details'.

→ At the top of the page you will see a summary of the condition entry. If there is more than one condition entry, each one can be seen by clicking the tab at the top of the box.

→ Click Condition Case Details to see the full summary.

## 2. Fault Findings

The fault progression table is intended to help plant reliability engineers better understand the root causes of failure.



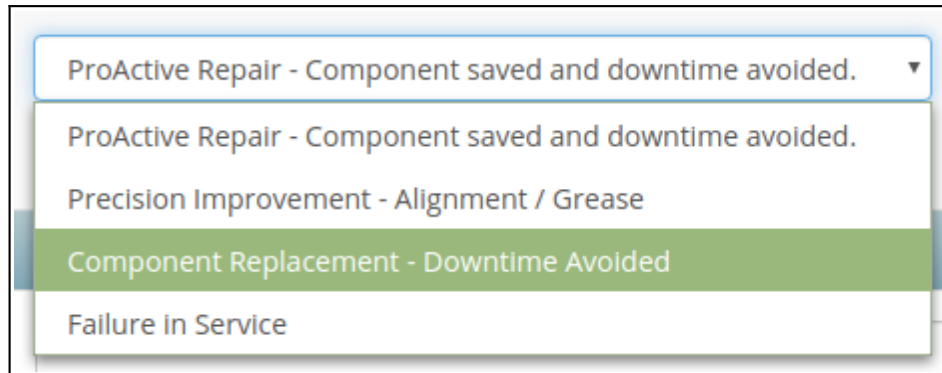
The screenshot shows a web interface titled 'Faults'. At the top, there is a button labeled 'Fault Findings' with a red plus sign. Below this is a table with the following columns: 'Fault', 'Fault Group', and 'Update Fault Problem Level'. The table contains three rows of data. Each row has a red trash can icon on the left and a red plus sign on the right. The 'Update Fault Problem Level' column contains a dropdown menu for each row.

Fault	Fault Group	Update Fault Problem Level
Lubrication - grease problem	Lubrication	Primary Failure
Alignment problem	Mechanical	Secondary Cause
Balance problem	Mechanical	Need to Investigate

→ All suspected faults from all entries in the case are shown here. The user may add new fault findings by clicking the 'plus' symbol at the top. Existing faults may be edited by choosing a new problem level from the drop-down menu and clicking the 'plus' button at the right, or deleted entirely by clicking the button at the left.

### 3. Predictive Maintenance Outcome

This field is meant to help reliability management understand the number of finds for each category.



→ Choose Predictive Maintenance Outcome by clicking the drop-down menu and choosing Proactive Repair, Precision Improvement, Component Replacement, or Failure in Service.

## 4. Closing Comments

This provides documentation for future reliability improvements that should be considered for this location.

Closing Comments

TEST SAVE COMMENTS

Save Comments

→ Add any closing comments and click Save.

## 5. Avoided Cost

This section allows entry of actual repair costs usually available at the work order closure and estimation of repair costs if the problem had not been detected. We have also added the ability to define component rebuild cost and component downtime cost in \$/hr as component attributes. If these fields are available, they will be populated into the cost of failure field. For each case closure Tango will calculate Savings (Avoided Cost), and this will be used in metrics reports for the program monthly/quarterly/yearly savings.

**Note:** The last column – Calculated Cost of Avoidance – will only display a value if your facility is tracking Budgeted Hours and Component Age. If you have questions about how to use this feature, please contact Chris Tyler at [chris.tyler@tf7.com](mailto:chris.tyler@tf7.com) or call 24/7 at 1-865-681-0282.

Avoided Cost Panel			
Actual Cost	Projected Cost	Savings	Calculated Cost Of Avoidance
\$2000	\$25875	\$23875	\$

Actual Cost Calculator      Projected Cost Calculator

→ Modify or add actual or projected costs by clicking to bring up the calculator needed.

### Actual Cost Calculator – Cost Totals Summary

The top portion of the window shows a summary of total costs, including rebuild costs, transportation, production, parts, and labor.

Actual Cost Line Item	
Cost Totals Summary	
Rebuild Cost Attribute	\$0
Total Cost Of Parts	\$750
Total Cost Of Transportation	\$750
Total Cost Of Production	\$
Total Cost Of Labor	\$3

## Actual Cost Estimator – Cost Line Item Table

The lower portion of the window is the Cost Line Item Table. Here you may add a new item by type, then add labor cost per hour, cost, and a comment or justification. Existing items may be deleted by clicking the button in the right column.

Cost Line Item Table

Cost Item Type	Labor Cost/Hr	Cost	Comment / Justification	Date	
<input type="text" value="Cost Item Type"/>	<input type="text" value="Enter Labor In H"/> hrs	<input type="text" value="\$ Enter Cost Here"/> .00	<input type="text" value="Enter Your"/>	<input type="text" value="Today"/>	<input type="button" value="Save Entry"/>
Labor	3	\$3		Jun 12, 2019	<input type="button" value="🗑"/>
Labor	444	\$0	3333	Jun 12, 2019	<input type="button" value="🗑"/>
Transportation	0	\$750	Trans	May 06, 2019	<input type="button" value="🗑"/>
Parts	0	\$250	Test cost comments	May 06, 2019	<input type="button" value="🗑"/>
Parts	10	\$500	TEST 1	May 06, 2019	<input type="button" value="🗑"/>

## Projected Cost Calculator – Projected Cost Line Item

Like the Actual Cost Calculator, the top portion shows a summary of total costs, including rebuild costs, transportation, production, parts, and labor.

Projected Cost Line Item ✕

Cost Totals Summary

Rebuild Cost Attribute	\$0
Total Cost Of Parts	\$13000
Total Cost Of Transportation	\$2300
Total Cost Of Production	\$10000
Total Cost Of Labor	\$575

## Projected Cost – Cost Line Item Table

Here you may view or edit the Risk of Failure and Likelihood Site Picked Up Issue. Both are used in Calculated Cost of Avoidance. Risk of Failure is also used in the Projected Cost calculation. You may also add a new item by type, then add labor cost per hour, cost, and a comment or justification. Existing items may be deleted by clicking the button in the right column.

**Cost Line Item Table**

**Probability Of Occurrence / Risk Of Failure**

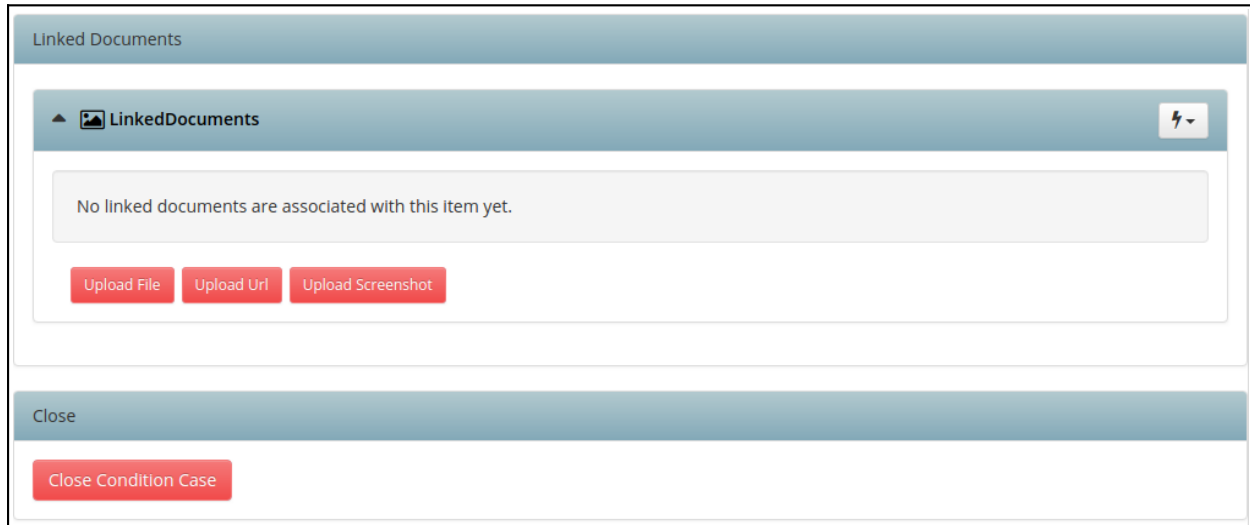
**Likelihood Site Picked Up Issue**

Cost Item Type	Cost	Comment / Justification	Date	
<input type="text" value="Cost Item Type"/>	<input type="text" value="\$ Enter Cost Here"/>	<input type="text" value="Enter Your Closing Comment Here"/>	<input type="text" value="Today"/>	<input type="button" value="Save Entry"/>
Transportation	\$2300	Test 3	May 06, 2019	<input type="button" value="🗑"/>
Labor	\$575	test 5	May 06, 2019	<input type="button" value="🗑"/>
Parts	\$3000	Test 4	May 06, 2019	<input type="button" value="🗑"/>
Parts	\$10000	Test 2	May 06, 2019	<input type="button" value="🗑"/>
Production	\$10000	Test comment PCLI	May 06, 2019	<input type="button" value="🗑"/>



## 6. Linked Documents and Close Condition Case

This has been the most requested Condition Case Closure feature. It provides a place to link case closure documents such as repair reports, failure analysis, new baseline tests, and more.



The screenshot shows a software interface with two main sections. The top section is titled "Linked Documents" and contains a sub-header "LinkedDocuments" with a lightning bolt icon. Below this, a message states "No linked documents are associated with this item yet." Three red buttons are visible: "Upload File", "Upload Url", and "Upload Screenshot". The bottom section is titled "Close" and contains a single red button labeled "Close Condition Case".

→ Add linked documents (files, URLs, or screenshots).

→ Close Condition Case