

This paper outlines use of MSA Link Pro Software for automated **Triple Test** report generation.

What is a Triple Test?

Triple Test is a new test mode that characterizes sensor performance by alternating between fresh air and standard calibration gas three times. This Brazil-specific test aids in compliance to region-specific calibration standards. Note that this test does not perform valid bump or calibration and does not test sensor accuracy; rather, this test simply reports sensor precision. The MSA GALAXY® GX2 System also supports **Triple → Cal → Triple** test mode that runs a Triple Test, calibration and an additional Triple Test.

What is a Triple Test Report?

These test readings display using MSA Link Pro Software traditional reports or by use of the new Triple Test report format. This format consists of a customer-created and -uploaded Excel template that enables users to define their own equations and layouts using GALAXY GX2 System Triple Test results. Final reports are populated and exported to PDF with the touch of a button.

System Prerequisites

This feature requires:

- MSA Link Pro Software, version 1.0.8 or greater.
- GALAXY GX2 System, version 1.08 or greater.
- Triple Test Template (an example template is available from MSA Customer Service upon request).

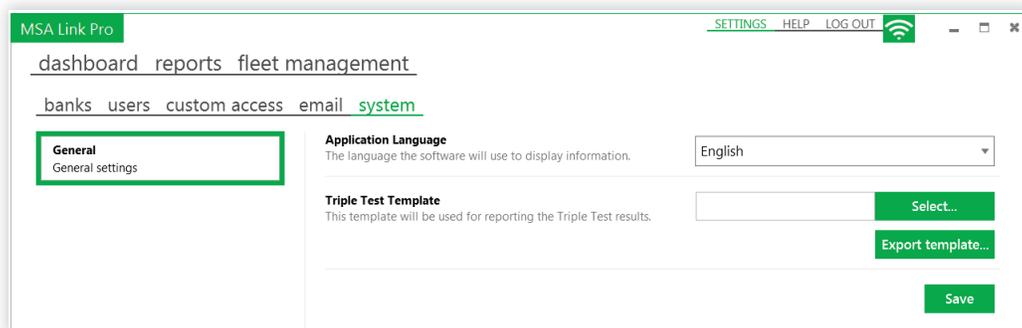
How Do I Set Up the Triple Test Feature?

1 Load the Triple Test Template (one-time system setup).

Note that the active user account level must reach **Admin** to proceed.

Follow these instructions using MSA Link Pro Software:

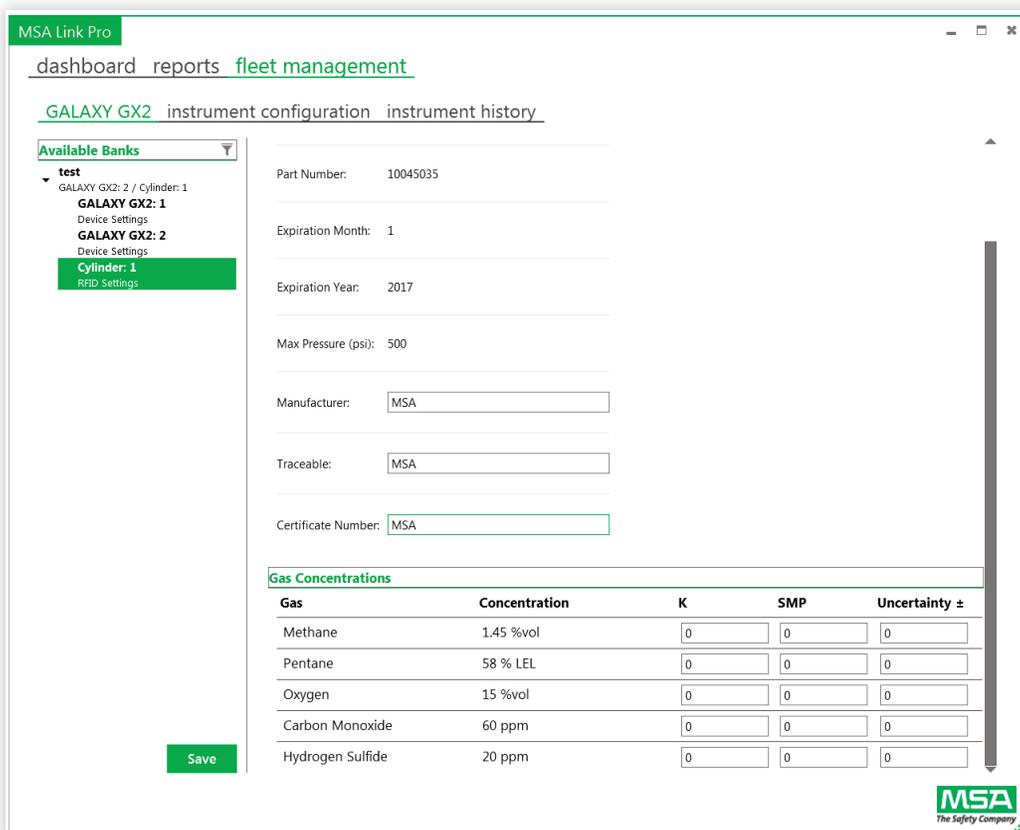
- Click **SETTINGS** on the top right of the window.
- Select the **System** tab.
- Open the **General** settings.
- Click **Select** in the Triple Test Template row.
- Select a Triple Test Template from a file saved to your computer and click **Save**. Note that the system supports a single template for all MSA Link Pro Software users to provide report consistency.



2 Configuring Triple Test cylinder information

Before a Triple Test runs on a GALAXY GX2 System, users must input a number of parameters into MSA Link Pro Software for each gas cylinder used. When cylinders supporting all gases used by the specific gas detector are added to the desired bank, open MSA Link Pro Software and follow these instructions:

- A Select **fleet management** from the top menu.
- B Select **GALAXY GX2** from the fleet management sub-menu.
- C Navigate to **Available Banks** on the left side of the window.
- D Expand the bank that you wish to use for Triple Tests. Note that the active user account must reach **Admin** level to view this option and to complete the following steps.
- E Click on the **Cylinder** to be used for testing.



When viewing this screen, populate all fields with appropriate information and click **Save**.

Note that if a gas cylinder is supplied without an MSA RFID tag, users must provide input for additional fields on this page. Additionally, if the bank has multiple cylinders, this data must be added for each cylinder. Furthermore, cylinder changes made from the GALAXY GX2 System will clear this information in order to prevent use of stale data. Values of **K**, **SMP** and **Uncertainty** must be entered for the Triple Test Report to correctly display test results. Fields left blank will result in an incomplete test report.

3 Setting the GALAXY GX2 System test mode

To run a Triple Test on a GALAXY GX2 System:

- A Select **GX2 Configuration**.
- B Select **GX2 Configuration**.
- C Select **Test Setup**.
- D Ensure that the **Mode** tab is selected.
- E Use arrow buttons to select either **Triple Test** or **Triple → Cal → Triple**.
- F Press the **save** button.
- G Press the **home** button until the screen returns to the main screen.
- H Insert the gas detector to calibrate.

How is a Triple Test Report generated?

After a Triple Test runs, users can generate Triple Test reports in bulk using MSA Link Pro Software. Follow these steps using MSA Link Pro Software to generate reports for all Triple Tests:

- A Select **reports** from the top menu.
- B Select **calibration** from the reports sub-menu.
- C Filter by **Triple Test** under **CALIBRATION EVENTS** on the left side.
- D Click **Search** on the bottom left.
- E Select **Report as** on the top right.
- F Choose **Triple Test** from the drop down menu; note that this option displays only if a template successfully uploads.

MSA Link Pro dashboard reports fleet management

session log session alarm log periodic log calibration GALAXY GX2

Expand all Collapse all

CYLINDER

Lot Number

Part Number

Bank Name

Bank Name

CALIBRATION EVENTS

All Events

Bump Test Passed

Bump Test Overdue

Bump Test Failed

Calibration Passed

Calibration Overdue

Calibration Failed

Calibration Check Passed

Sensor Life Warning

Sensor Life Alarm

Triple Test

Save Search

<input checked="" type="checkbox"/>	Timestamp (Origin)	Timezone (Origin)	Test Type	Status	Expiration Date (Or Sensor Life)	Device Type
<input checked="" type="checkbox"/>	9/2/2015 3:00:07 PM	Eastern Standard Ti	Triple Test	Passed	10/2/2015	ALTAIR 5X
<input checked="" type="checkbox"/>	9/2/2015 3:04:57 PM	Eastern Standard Ti	Triple Test	Passed	10/2/2015	ALTAIR 5X

Report as... Export to...

Records Found: 2 / Records Selected: 2

MSA The Safety Company

MSA Link Pro

Technical Engineer Alice

Ambient Temperature 23 +/- 2

Relative Humidity 35 +/- 5

Destination C:\Users\Q2dinardir88\Desktop Select...

Export Existing Reports (if Present)

Ok Cancel

- G Populate the fields shown at left with appropriate information.

Note that if you wish to regenerate existing reports, uncheck **Export Existing Reports (if Present)**.

Frequently Asked Questions

- Q My GALAXY GX2 System displays, “Some gas cylinder information is missing.”**
- A** Ensure that all fields are populated for each cylinder used by your bank under **fleet management** → **GALAXY GX2** and that the **Save** button is clicked.
- Q My GALAXY GX2 System displays, “Triple Test mode needs all gases available.”**
- A** Ensure that gas cylinders are included that contain gas for each sensor in the gas detector undergoing testing. A Triple Test will not run if any gases are missing for the sensors undergoing testing.
- Q Where are my Triple → Cal → Triple calibration reports?**
- A** **Triple → Cal → Triple** creates records for each step of the test procedure; when running **Triple → Cal → Triple**, two separate Triple Test records and one calibration record will generate.
- Q I do not see a Triple Test option under the Report as tab.**
- A** Ensure that the active account reaches **Admin** level and that a Triple Test Template has successfully uploaded.
- Q I do not see Triple Test listed anywhere within MSA Link Pro Software.**
- A** Ensure that MSA Link Pro Software and GALAXY GX2 Systems are updated to the latest version.

Appendix A: Triple Test Parameter Descriptions

<i>Manufacturer</i>	Company that produced the calibration gas cylinder
<i>Traceable</i>	Internal traceability number for the cylinder calibration certificate
<i>Certificate Number</i>	Calibration certificate number provided by the cylinder manufacturer
<i>K</i>	Coverage factor
<i>SMP</i>	Actual gas value from the cylinder calibration certificate
<i>Uncertainty</i>	Error tolerance of actual cylinder readings

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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