

# VectorCAST Jama Integration

Version 1.0

2022-02-25

Application Note AN-ACT-1-003

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|---------------------|----------------------------------------------------|
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| <b>Restrictions</b> | Public Document                                    |
| <b>Abstract</b>     | Information on the Jama and VectorCAST Integration |

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## 1 Overview

The VectorCAST Requirements Gateway (RGW 3.0) provides traceability between software requirements and test cases and allows the import and mapping of requirements to test cases.

Requirements Gateway 3.0 provides a way to:

- Import testing requirements from your Application Lifestyle Management (ALM) or Requirements tool to a VectorCAST RGW repository,
- Assign specific requirements to testcases in a unit test environment and then
- Export the resulting pass or fail status back to the ALM tool.

In RGW 3.0, the requirements database is implemented using JSON, allowing the user to commit the repository to Source Control Management (SCM).

In addition to CSV Files, VectorCAST RGW 3.0 will initially support the following Requirements Management Systems:

- codebeamer
- Jama
- Polaron®

This Application Note will show how to use the RGW 3.0 Jama Integration.

## 2 Use Cases

The following use cases will be shown:

- Create a Requirements Repository
- Authenticate with the Server
- Import Requirements
- Link Requirements to Test Cases
- Export Requirements
- Review Updates Requirements

### 2.1 Use Case: Create a Requirements Repository

To use the Requirements Gateway, a location must be specified for the Repository. If no location is specified, a prompt opens allowing the user to select the location. A standard Choose a Directory dialog opens, prompting the user to enter the path to the directory.

Set a location for the repository location by selecting **Tools => Requirements Gateway => Options...** from the Menu Bar shown in Figure 1.

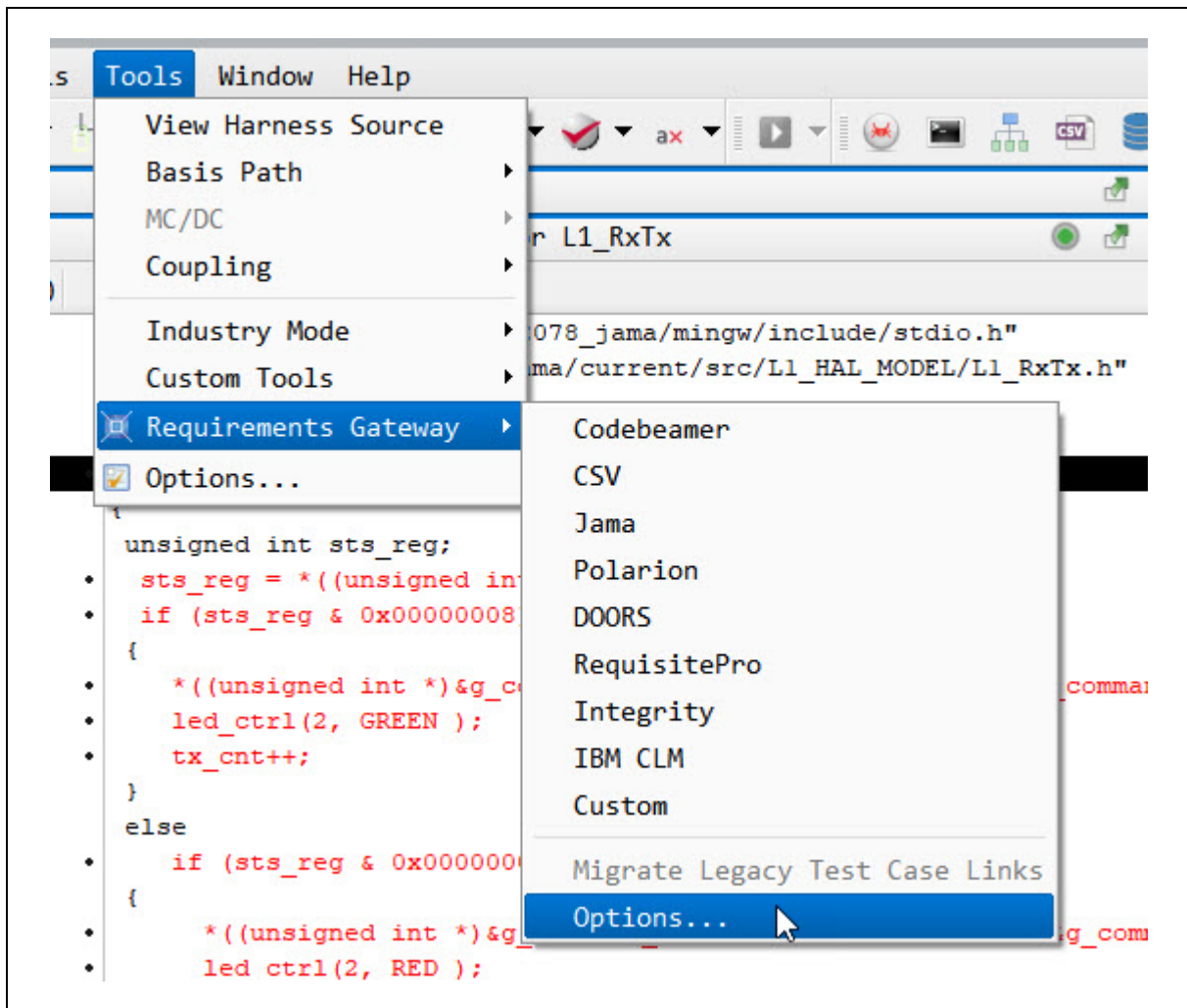


Figure 1-Select Requirements Gateway Options

The **Requirements Gateway Options** dialog will open as shown in Figure 2.

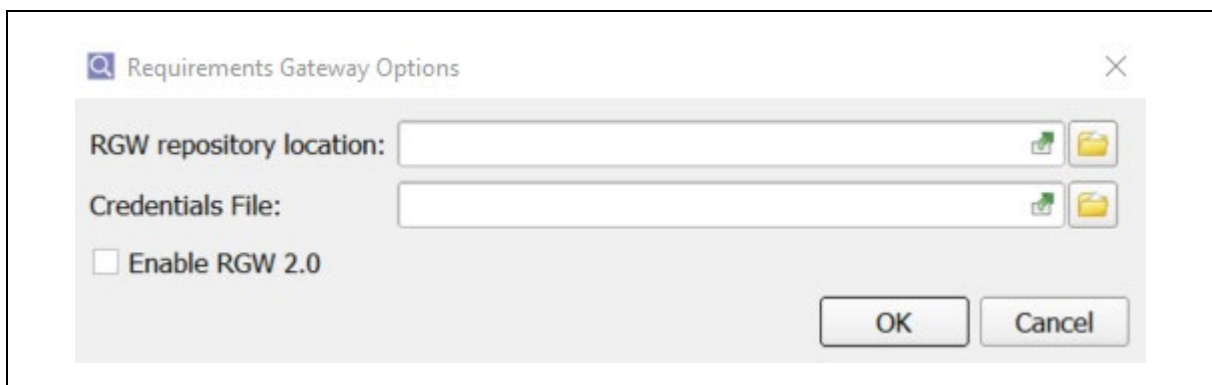


Figure 2-The Requirements Gateway Options Dialog

In the **RGW Repository Location** field, enter the path to the repository and select the **OK** button as shown in Figure 3.

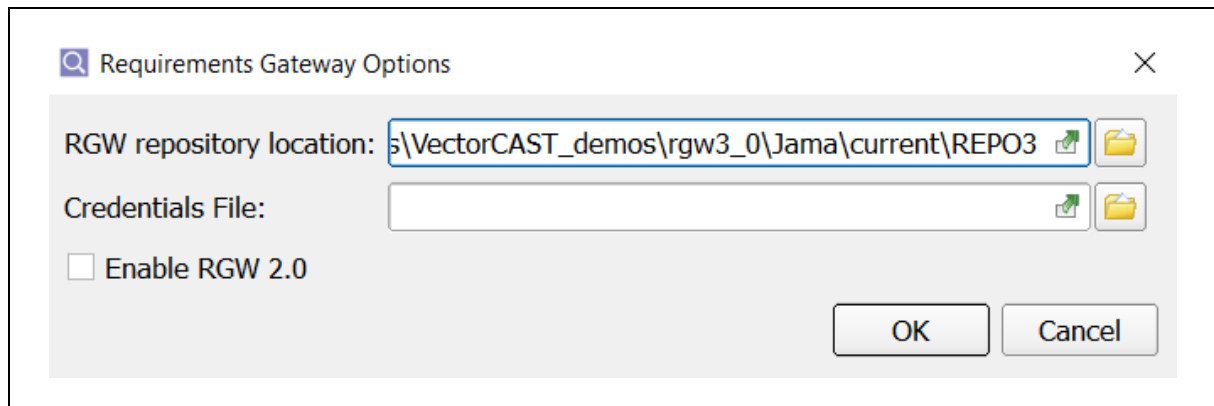


Figure 3-Set RGW Repository Location

The RGW repository location is now set and the initial Requirements Repository is created in this location. VectorCAST creates a directory under the set location called `requirements_gateway`, that will hold the setting and log files used by RGW.

A new option starting in VectorCAST 2021SP5 is the ability to store server credentials in a Credentials File. The previous option of adding the credentials during the authentication step is still available. The Credentials File can be set in the Requirements Gateway Options GUI, shown in Figure 4, or set the environment variable `VCAST_CREDENTIALS_FILE` to the location of the file.

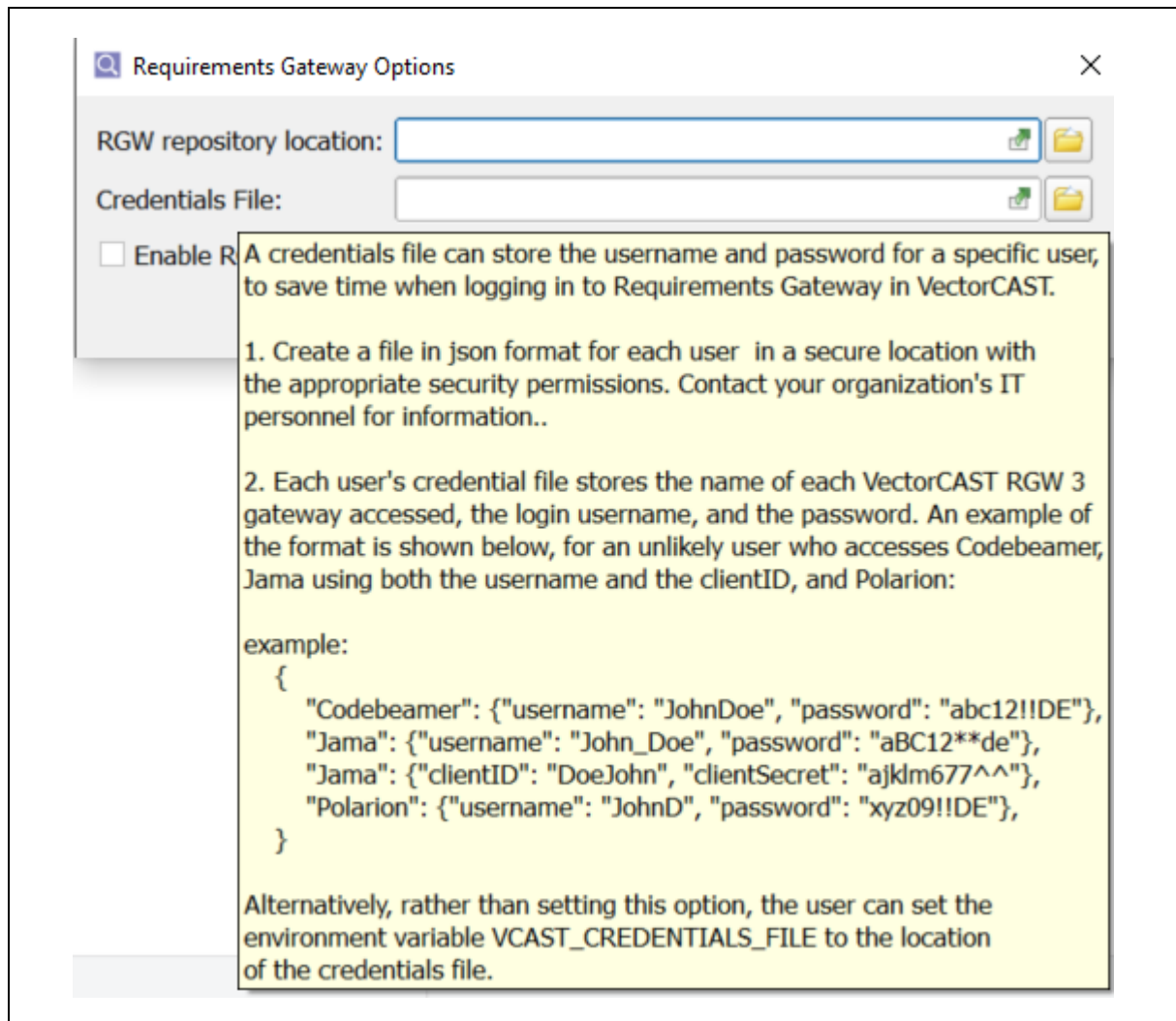


Figure 4-Credentials File

## 2.2 Use Case: Authenticate with the Server

To authenticate with the Jama server, first Select **Tools => Requirements Gateway => Jama** from the Menu Bar as shown in Figure 5.

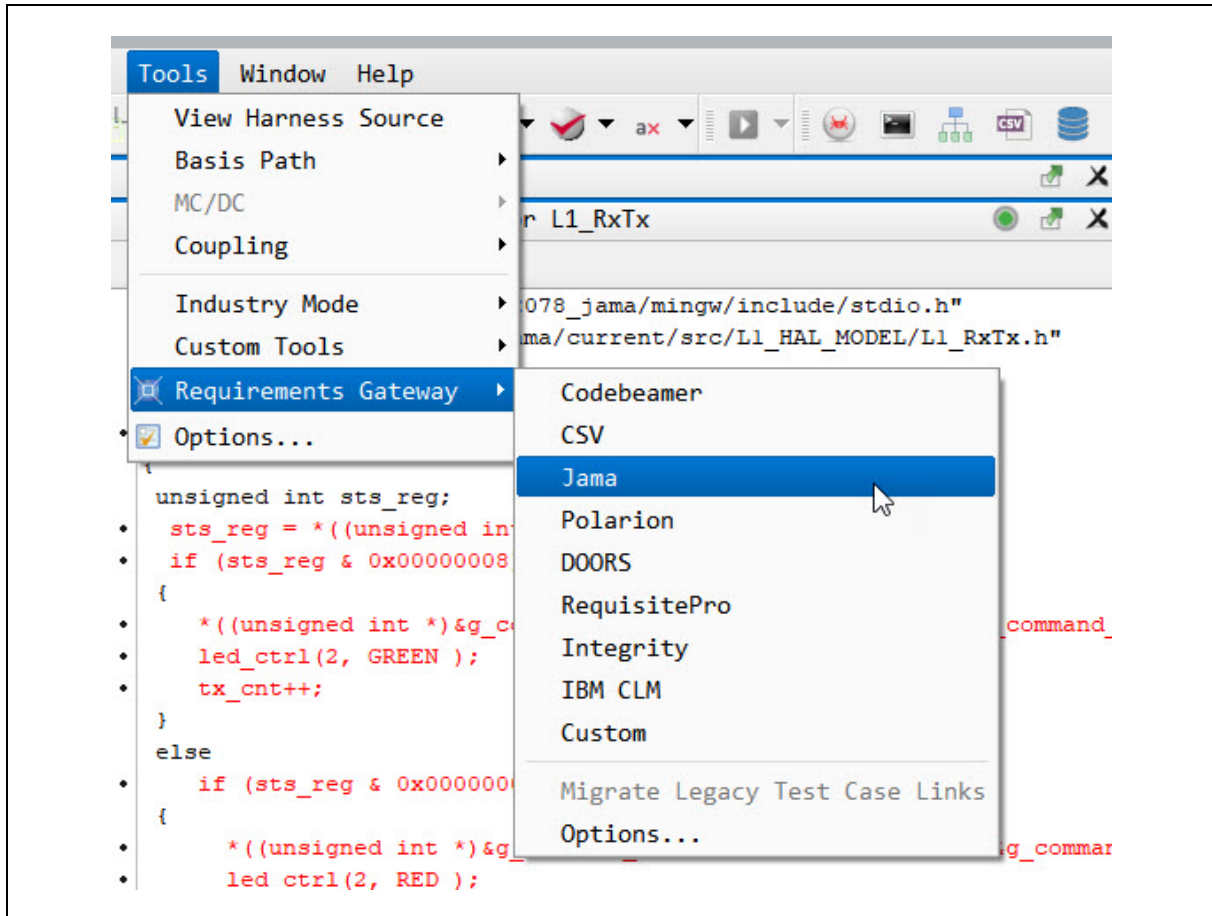
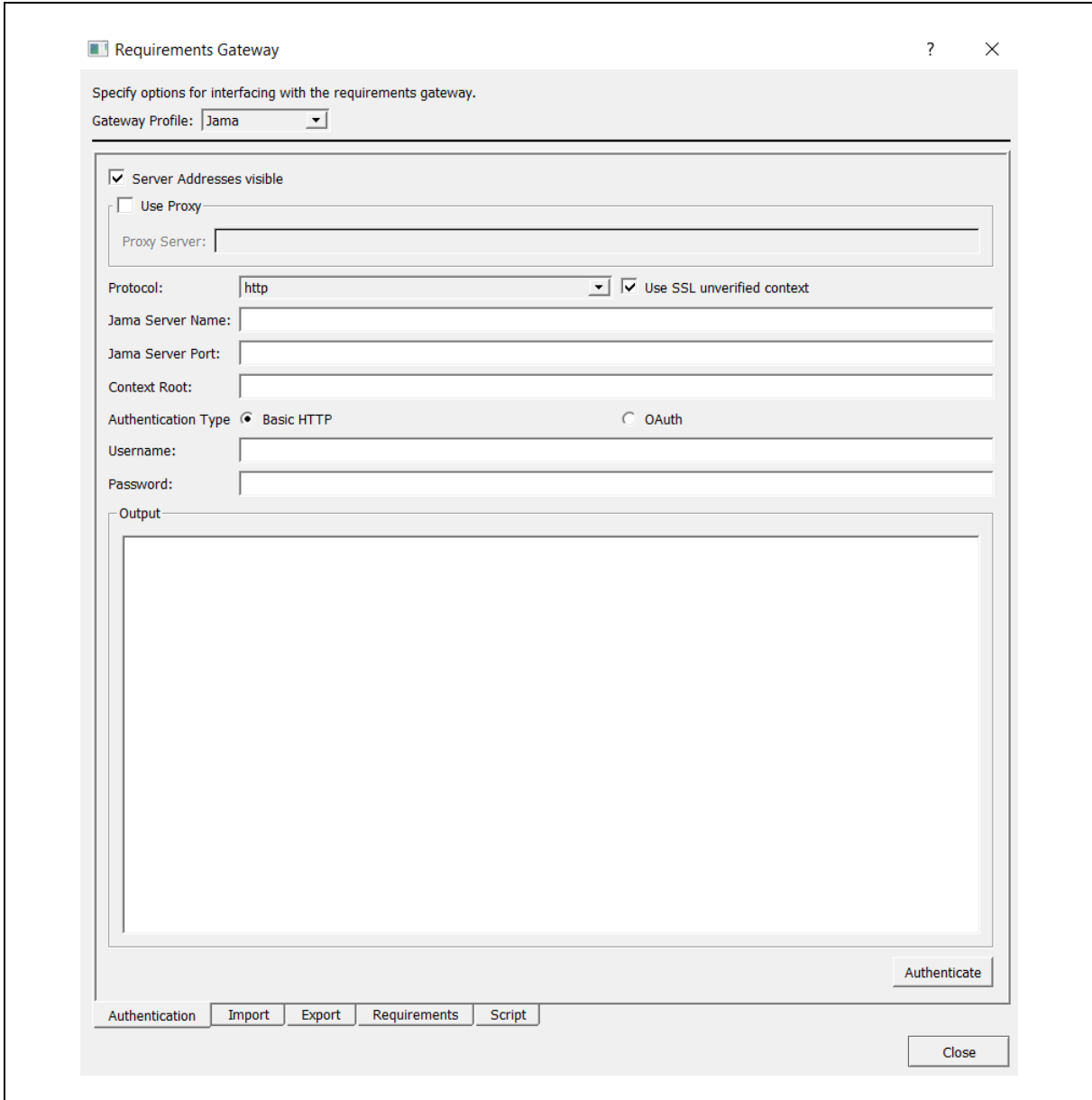


Figure 5-Select the Gateway

The **Requirements Gateway** dialog will open with **Jama** as the selected **Gateway Profile** and the **Authentication** tab selected at the bottom as shown in Figure 6.



The image shows a 'Requirements Gateway' dialog box with a title bar containing a help icon, the text 'Requirements Gateway', and close/minimize/maximize icons. The main area is titled 'Specify options for interfacing with the requirements gateway.' and features a 'Gateway Profile' dropdown menu set to 'Jama'. Below this, there are several configuration options: a checked checkbox for 'Server Addresses visible', an unchecked checkbox for 'Use Proxy' with an empty 'Proxy Server' text field, a 'Protocol' dropdown set to 'http', and a checked checkbox for 'Use SSL unverified context'. Further down are text fields for 'Jama Server Name', 'Jama Server Port', and 'Context Root'. The 'Authentication Type' section has two radio buttons, 'Basic HTTP' (selected) and 'OAuth'. Below these are text fields for 'Username' and 'Password'. A large 'Output' text area is positioned below the authentication fields. At the bottom right of the main area is an 'Authenticate' button. The bottom of the dialog features a tabbed interface with 'Authentication' (selected), 'Import', 'Export', 'Requirements', and 'Script' tabs. A 'Close' button is located at the bottom right corner of the dialog.

Figure 6-Authentication Tab

Enter the information needed to connect to the Jama server. This should be the same information you would use normally to connect to the Jama server via the web interface.

Once the information is entered, select the **Authenticate** button as shown in Figure 7.

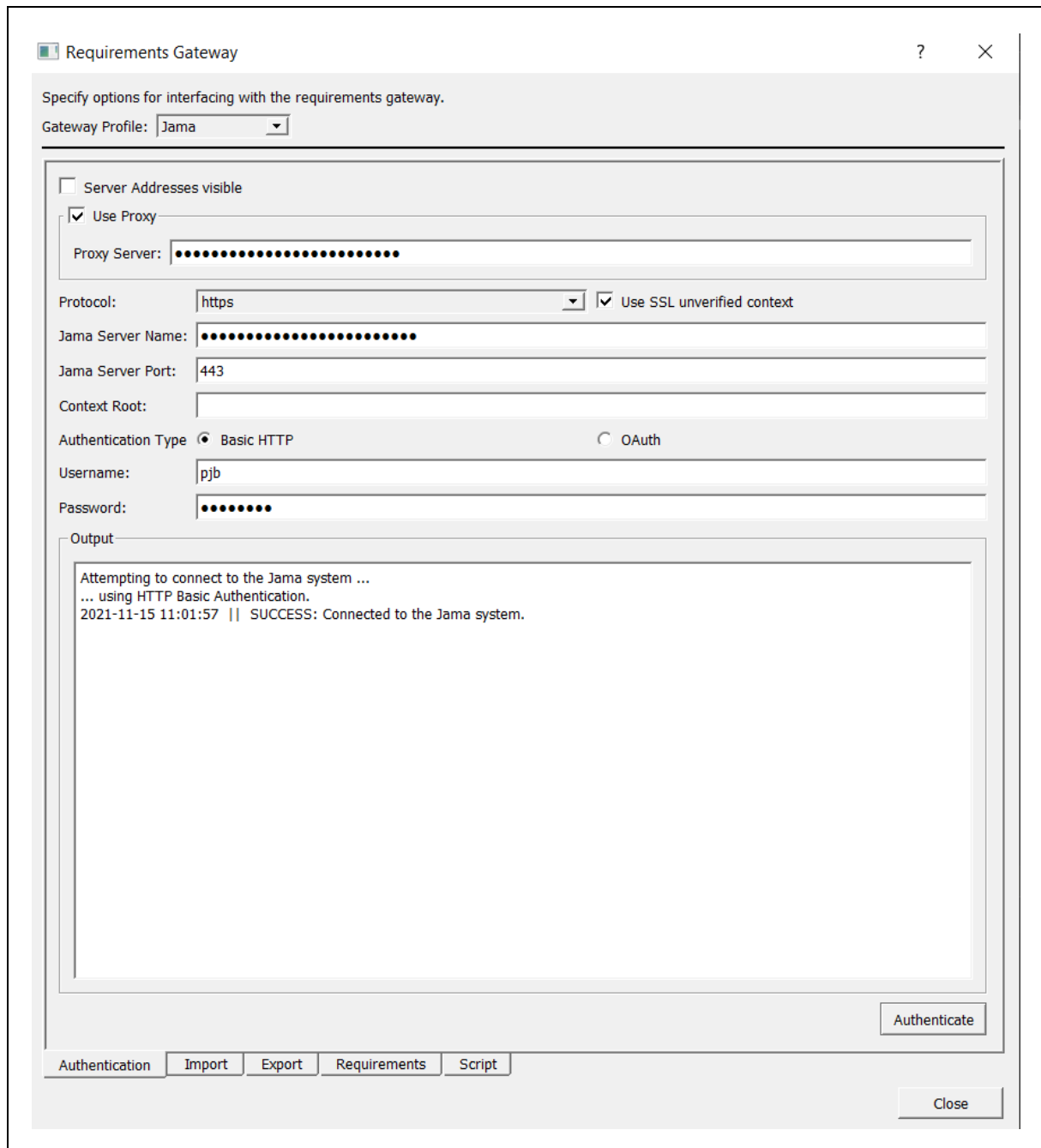
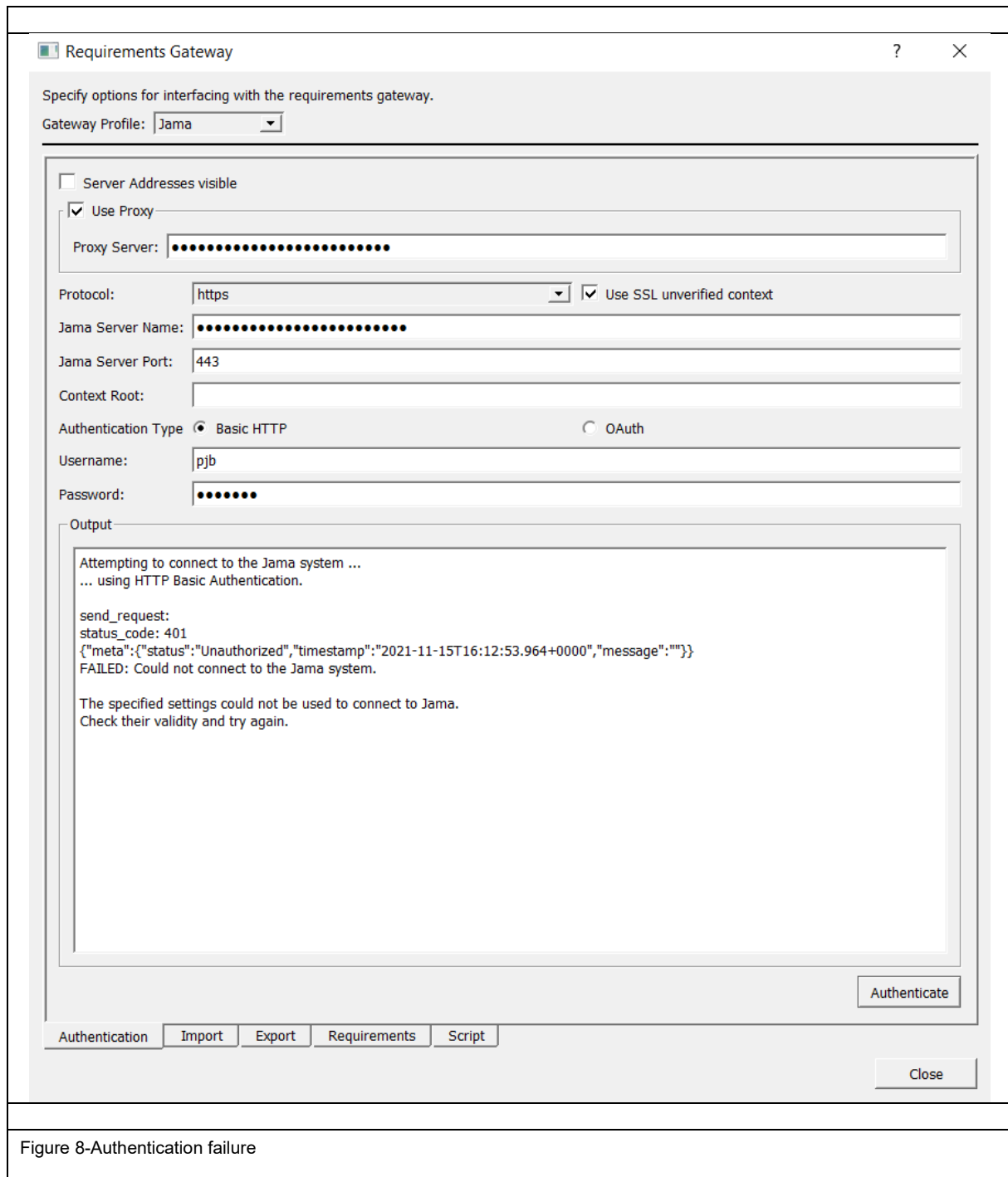


Figure 7-Authenticate with the Server

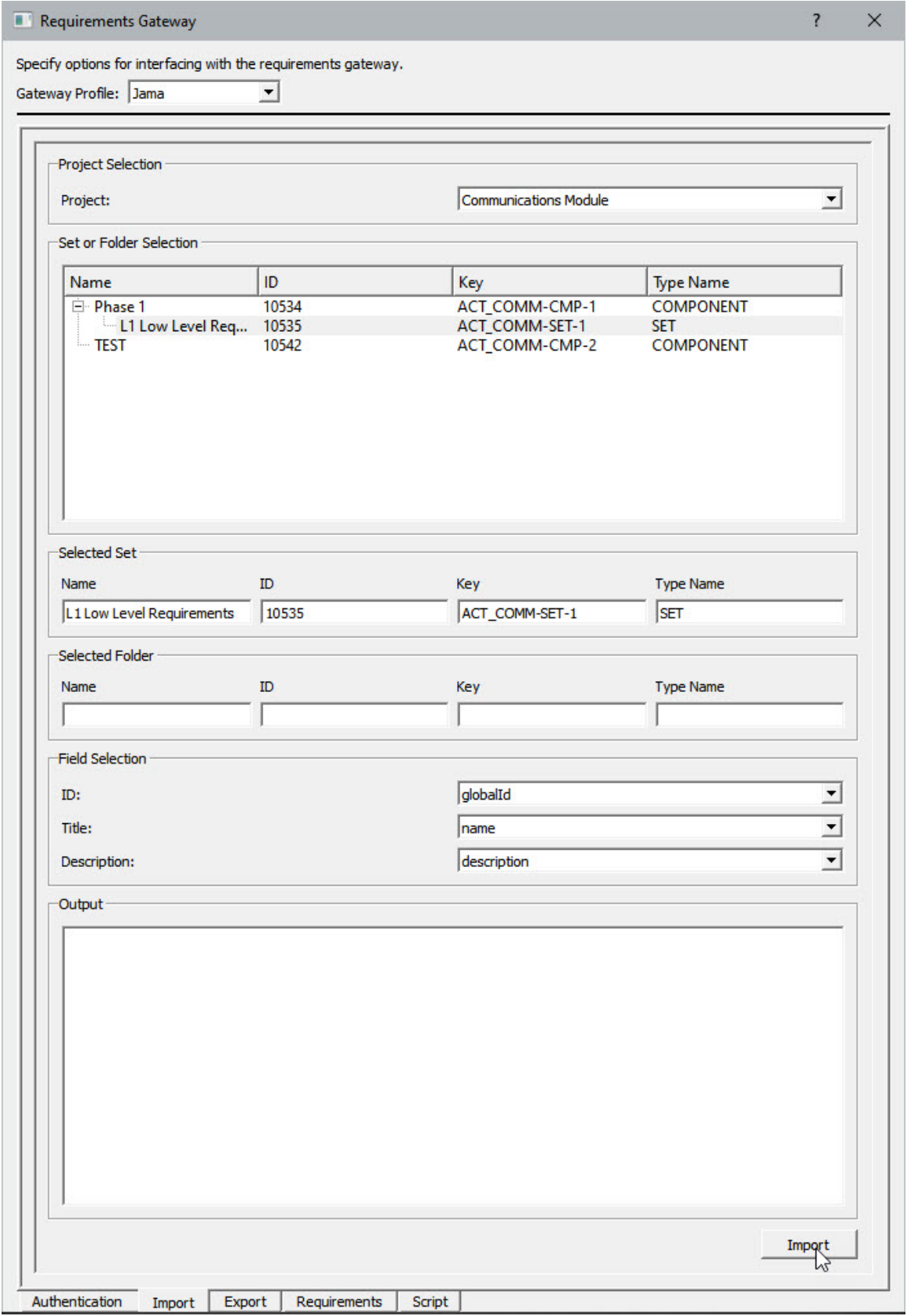
You will see a message indicating the status of the authentication. If the authentication fails, you will see the reason for failure in the **Output** window of the **Authentication** tab, as seen in Figure 8.





## 2.3 Use Case: Import Requirements

To import requirements from Jama, you will need to open the Requirements Gateway dialog as shown in Figure 5. Once the dialog is open, select the import tab at the bottom and select the Project and Set you wish to import from as shown in Figure 9 and then select **Import**.



Requirements Gateway

Specify options for interfacing with the requirements gateway.

Gateway Profile: Jama

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**Project Selection**

Project: Communications Module

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**Set or Folder Selection**

| Name                | ID    | Key            | Type Name |
|---------------------|-------|----------------|-----------|
| Phase 1             | 10534 | ACT_COMM-CMP-1 | COMPONENT |
| L1 Low Level Req... | 10535 | ACT_COMM-SET-1 | SET       |
| TEST                | 10542 | ACT_COMM-CMP-2 | COMPONENT |

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**Selected Set**

| Name                      | ID    | Key            | Type Name |
|---------------------------|-------|----------------|-----------|
| L1 Low Level Requirements | 10535 | ACT_COMM-SET-1 | SET       |

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**Selected Folder**

| Name | ID | Key | Type Name |
|------|----|-----|-----------|
|      |    |     |           |

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**Field Selection**

ID: globalId

Title: name

Description: description

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**Output**

Import

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Authentication   Import   Export   Requirements   Script

Figure 9-Select Requirements to Import from the Server

VectorCAST will now fetch the requirements selected from the Jama server and import them into VectorCAST. A listing of the requirements will be shown in the **Output** window as shown in Figure 10.

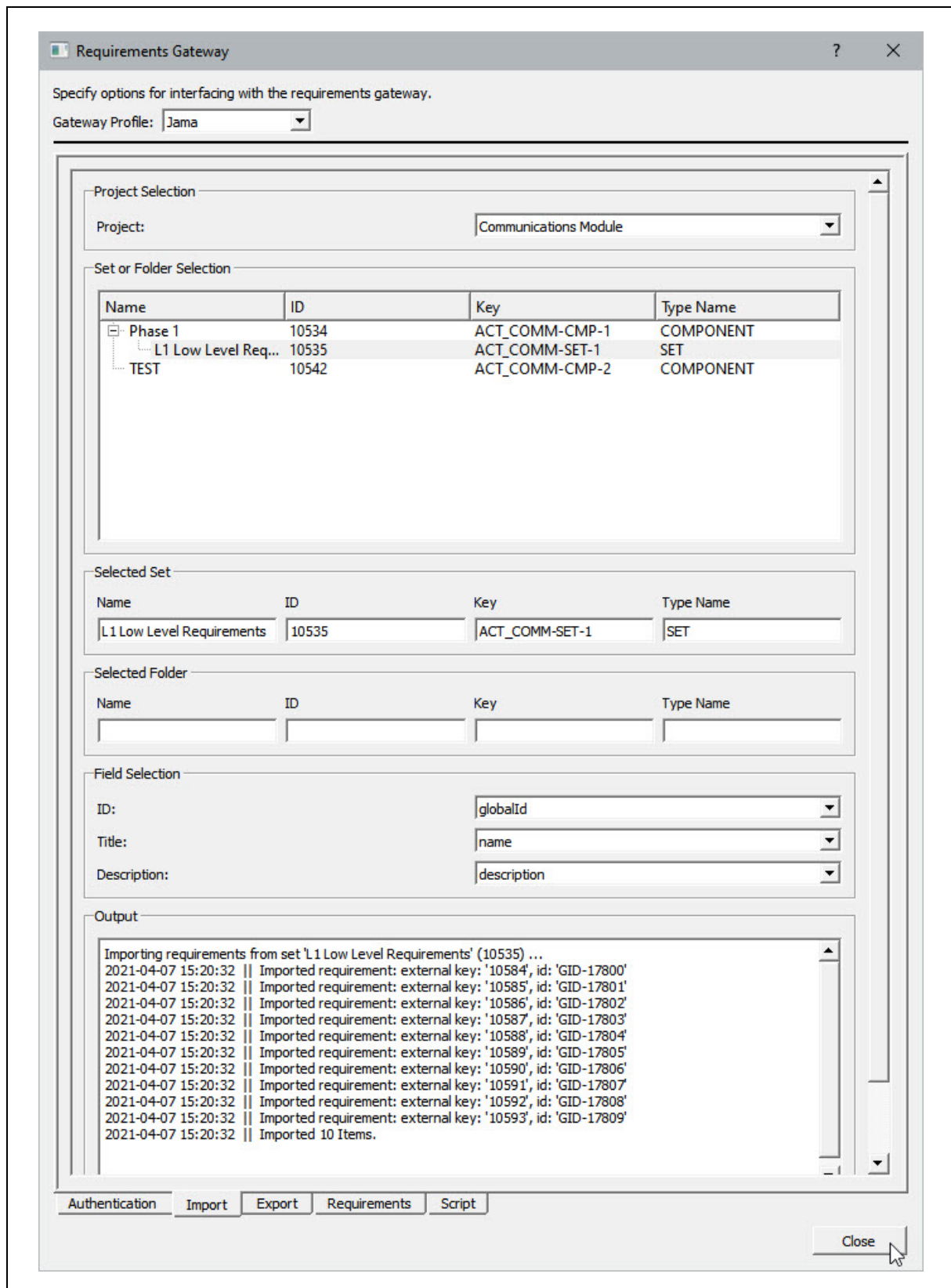


Figure 10-Import Requirements from the Server

## 2.4 Use Case: Link Requirements to Test Cases

To link requirements to a test case, first open a unit test environment and select a test case. Select the **Requirements** button as shown in Figure 11.

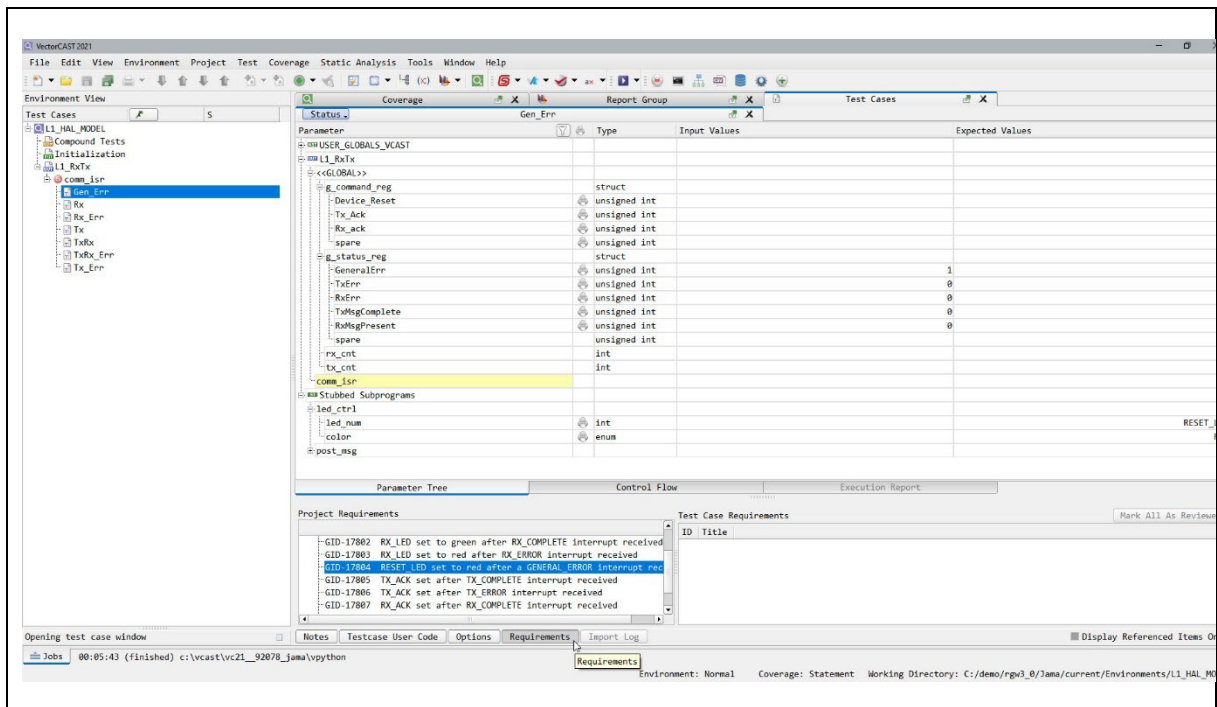


Figure 11-Select Requirements in the Unit Test Environment

In the Project Requirements window you will see the list of imported requirements. To link a requirement to the test case, double click on the requirement. This will add the requirement to the **Test Case Requirements** as shown in Figure 12.

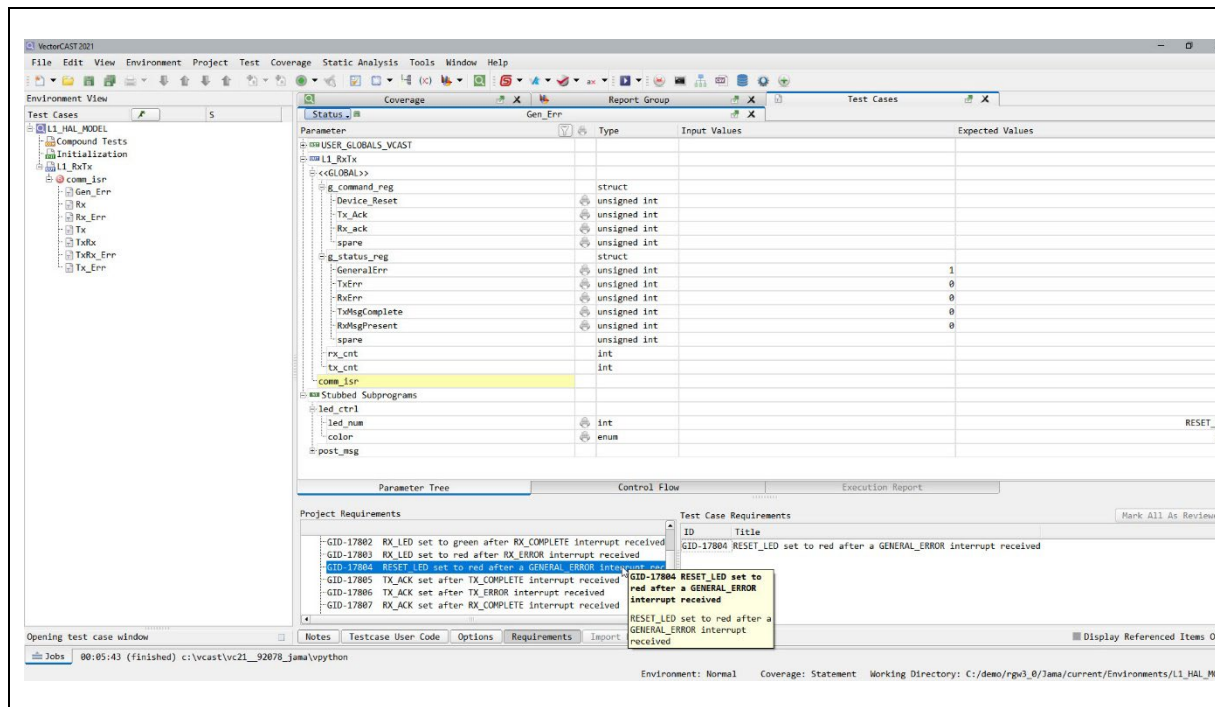


Figure 12-Link a Requirement to a Unit Test Case

At this point, execute the test case to prepare for exporting the requirements as shown in Figure 13.

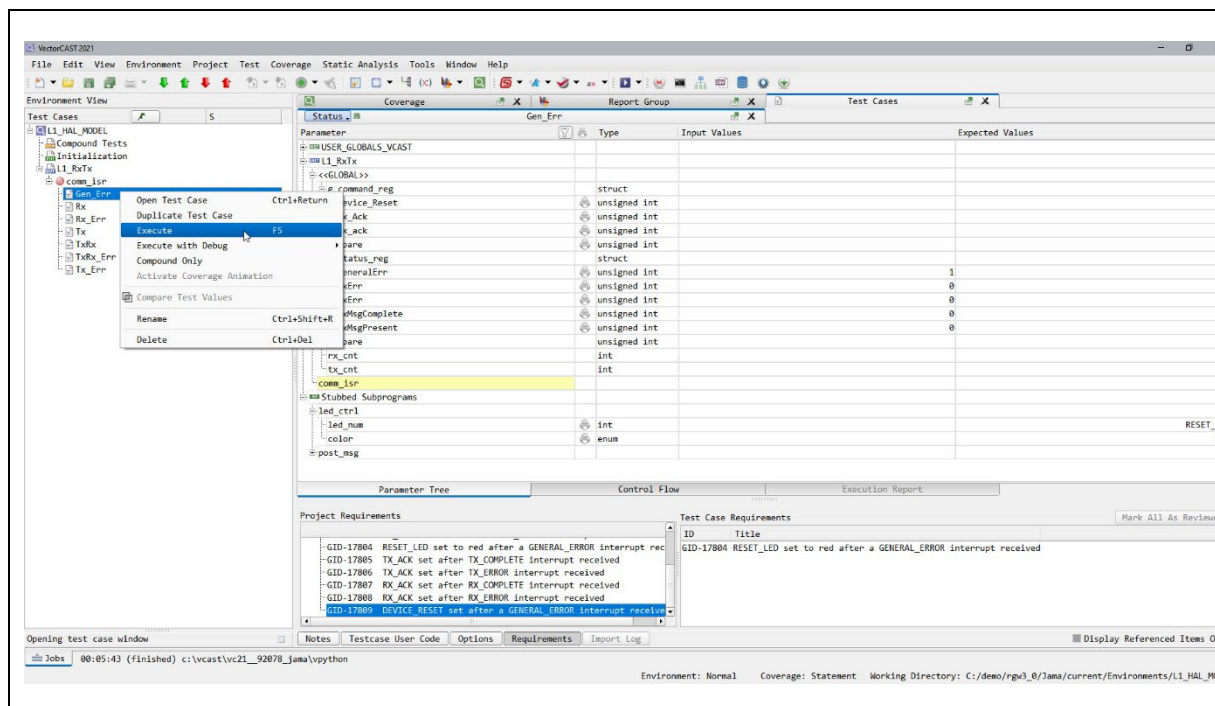


Figure 13-Execute the Unit Test Case

Once the test case is executed (see Figure 14), you are ready to perform the export.

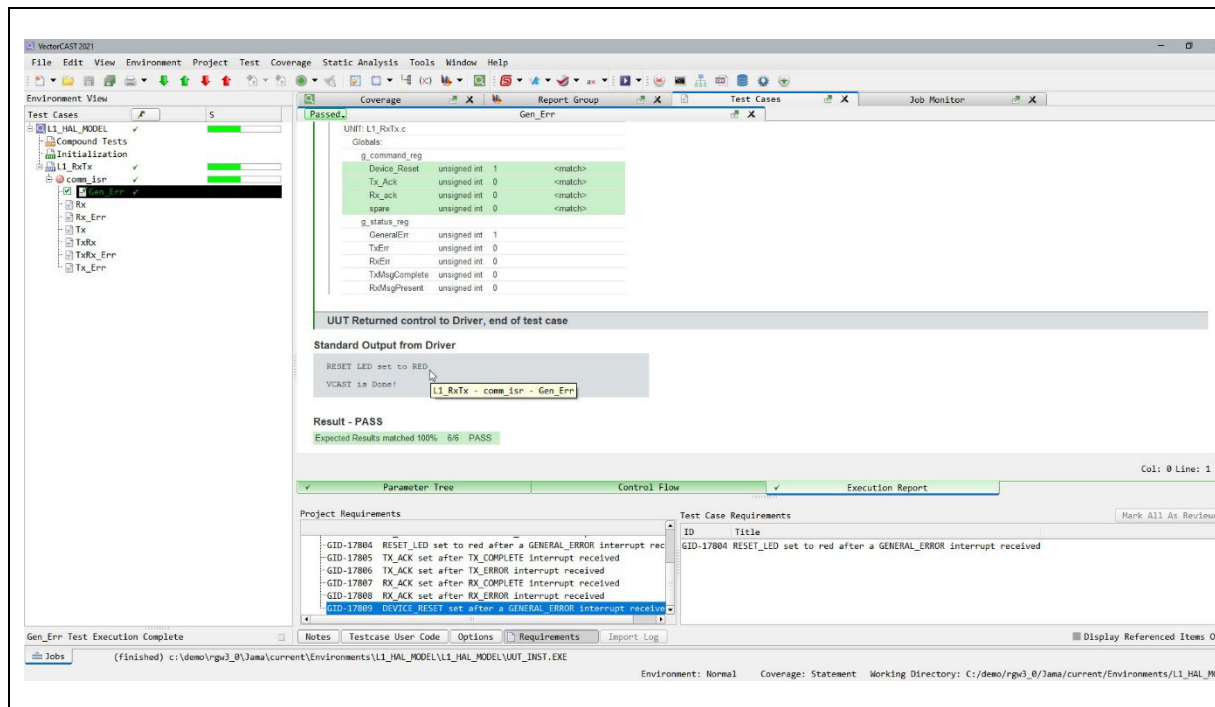


Figure 14-Unit Test Case After Execution

## 2.5 Use Case: Export Requirements

To export the requirements, first Select **Tools => Requirements Gateway => Jama** from the Menu Bar as shown in Figure 5. The **Requirements Gateway** dialog will open with Jama as the selected **Gateway Profile**. Select the **Export** tab at the bottom as shown in Figure 15. Select the **Localisation Tab** and set the **Localisation Options** and the **Set or Folder Selection**.

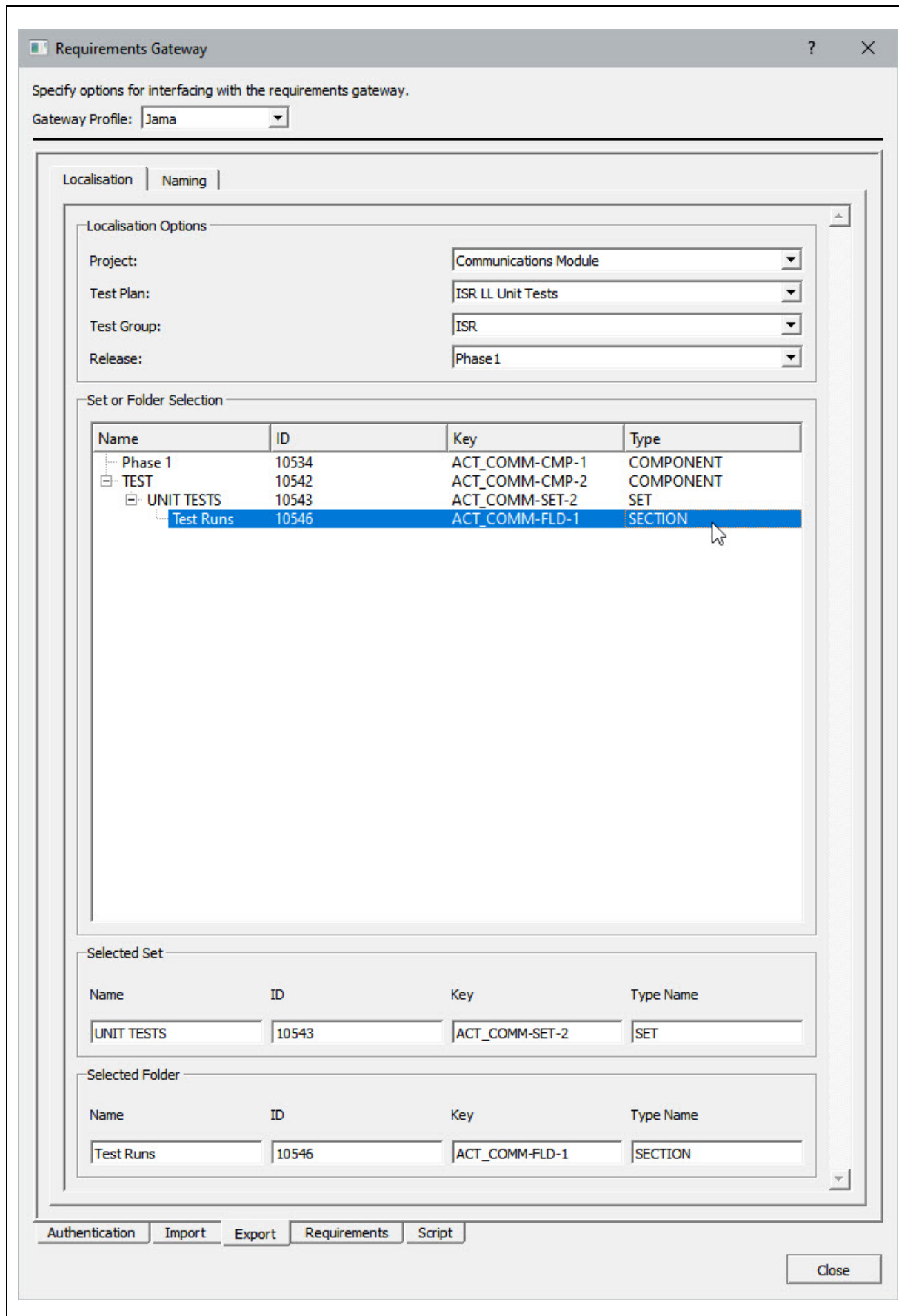


Figure 15-Select the Export Tab



Next select the **Naming Tab** and enter the **Test Case** information.

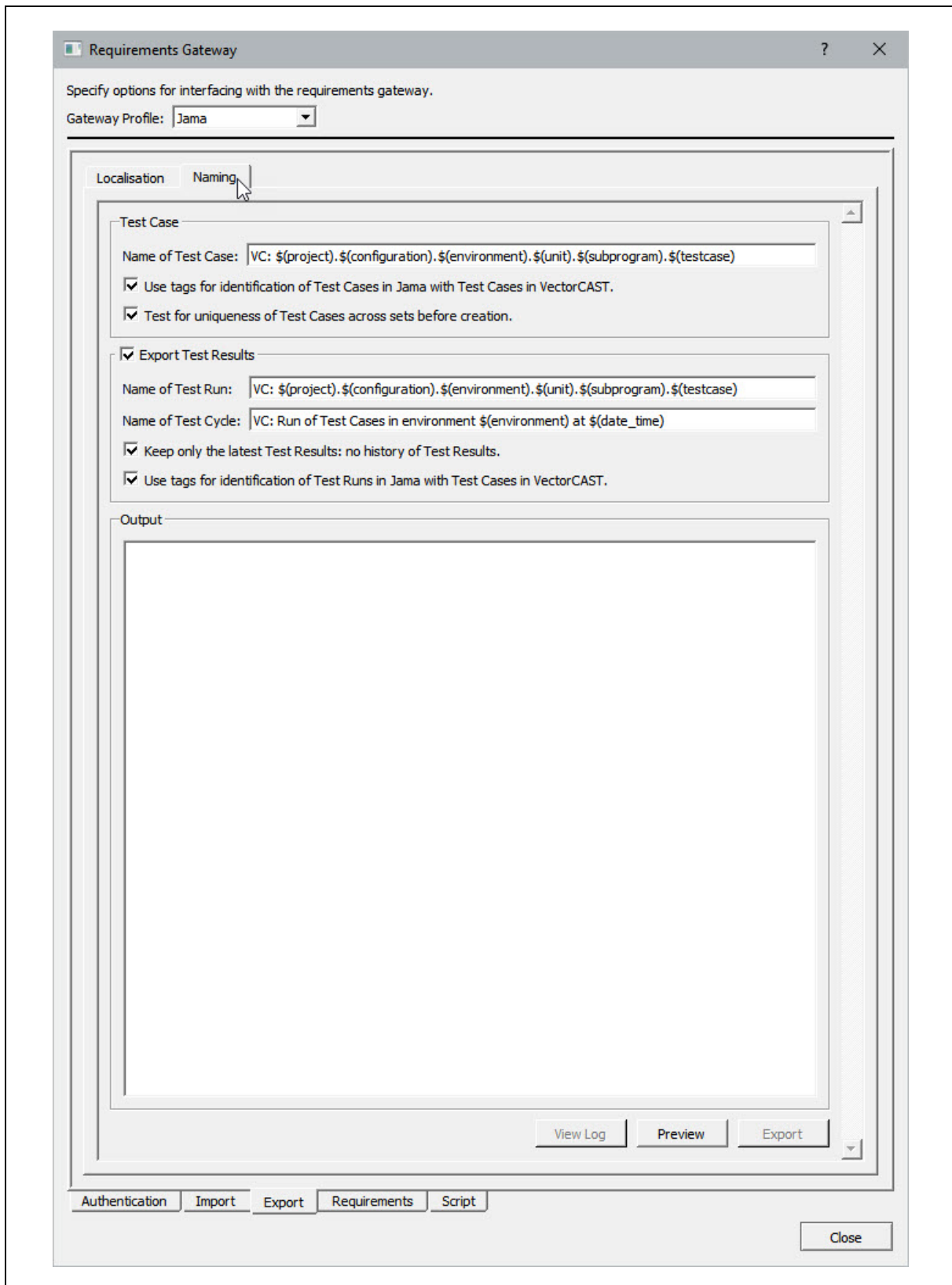
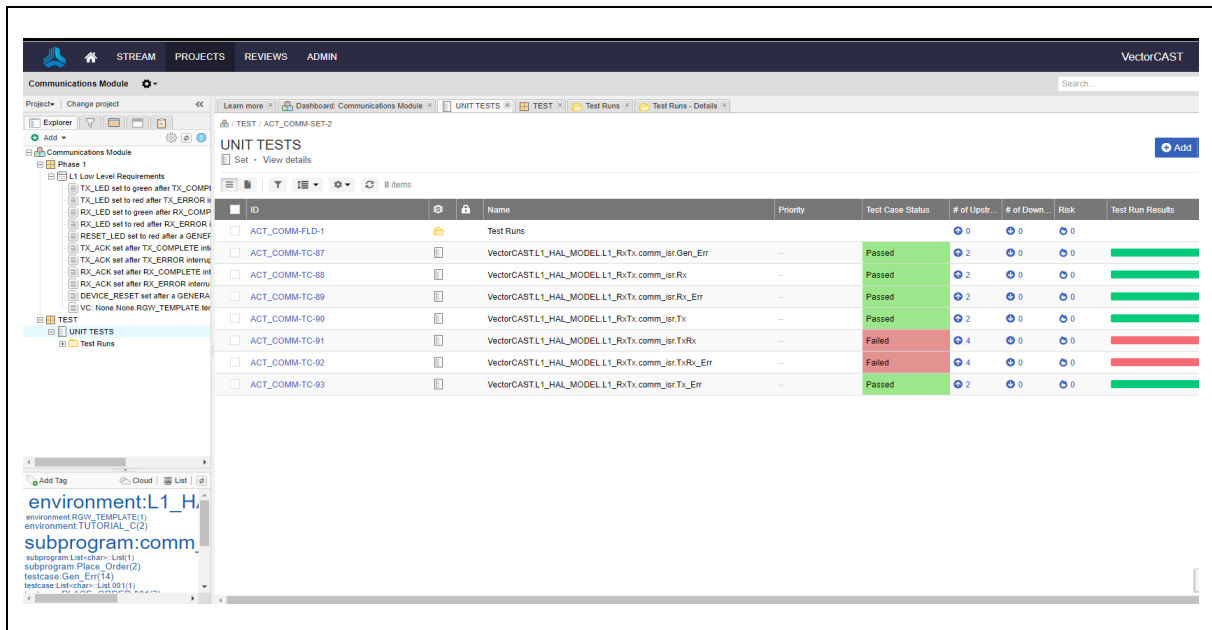


Figure 16-Export Requirements



## 2.6 Use Case: Review Updates on Jama



| ID             | Name                                              | Priority | Test Case Status | # of Upstr... | # of Down... | Risk | Test Run Results |
|----------------|---------------------------------------------------|----------|------------------|---------------|--------------|------|------------------|
| ACT_COMM-FLD-1 | Test Runs                                         |          |                  | 0             | 0            |      |                  |
| ACT_COMM-TC-87 | VectorCAST L1_HAL_MODEL L1_RxTx comm_isr Gen_Err  |          | Passed           | 2             | 0            | 0    |                  |
| ACT_COMM-TC-88 | VectorCAST L1_HAL_MODEL L1_RxTx comm_isr Rx       |          | Passed           | 2             | 0            | 0    |                  |
| ACT_COMM-TC-89 | VectorCAST L1_HAL_MODEL L1_RxTx comm_isr Rx_Err   |          | Passed           | 2             | 0            | 0    |                  |
| ACT_COMM-TC-90 | VectorCAST L1_HAL_MODEL L1_RxTx comm_isr Tx       |          | Passed           | 2             | 0            | 0    |                  |
| ACT_COMM-TC-91 | VectorCAST L1_HAL_MODEL L1_RxTx comm_isr TxRx     |          | Failed           | 4             | 0            | 0    |                  |
| ACT_COMM-TC-92 | VectorCAST L1_HAL_MODEL L1_RxTx comm_isr TxRx_Err |          | Failed           | 4             | 0            | 0    |                  |
| ACT_COMM-TC-93 | VectorCAST L1_HAL_MODEL L1_RxTx comm_isr Tx_Err   |          | Passed           | 2             | 0            | 0    |                  |

Figure 17-Results on Jama

## 3 Additional Resources

[Jama Software](#)

## 4 Trademarks

All mentioned names are either registered or unregistered trademarks of their respective owners.

## 5 Contacts

For a full list with all Vector locations and addresses worldwide, please visit <http://vector.com/contact/>.