Deltek

Deltek PM Compass 8.5

API Developer Guide

May 16, 2025

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While Deltek has attempted to verify that the information in this document is accurate and complete, some typographical or technical errors may exist. The recipient of this document is solely responsible for all decisions relating to or use of the information provided herein.

The information contained in this publication is effective as of the publication date below and is subject to change without notice.

This edition published December 2025.

Contents

PM Compass RESTful API

The RESTful API for Deltek PM Compass accepts JSON (JavaScript Object Notation) files through specific endpoints, allowing customers to build custom applications that interact with PM Compass.

The PM Compass API currently provides coverage of the PM Compass solution for importing cost and/or schedule progress.

> **Attention:** For information about PM Compass concepts, terminology, and business logic, refer to the Deltek PM Compass Help System.

PM Compass API Elements

This section outlines the API elements and explains how the PM Compass API utilizes them.

JSON

Every resource you interact with using the PM Compass RESTful API must be represented in JSON format.

Request Header

Specify JSON format in your requests by using the Accept request header for the media type: application/json.

Endpoint

The endpoint is a URL that identifies the resource you want to access. Endpoints have a form like the following: {{base_url}}/contact/{{123456789}}.

The {{base_url}} is typically represented as a variable and, as an example, might resolve to a path such as: https://servername/PMCompassApi.

Base URL

The base URL is formed as follows: https://{{pmcompass-domain-and-path}}PMCompassApi

where {{pmcompass-domain-and-path}} is the fully qualified domain or DNS name and path to your PM Compass instance such as customer1.deltek.com/pmcompass1.

Example

https://www.myapi.com/PMCompassApi or https://internal.domain/PMCompassApi)

HTTP Verbs

PM Compass APIs rely on the following HTTP verbs to access and manipulate resources:

- POST creates the resource
- GET reads the resource

Success Codes

Successful requests return the requested resource and the return status success code.

Request	Return Status Success Code	Description
GET	200 OK	This code indicates that the request was successful, and the current JSON representation of the resource is returned. The endpoint worked as expected.
POST	200 OK	This code indicates that the request was successful, and the location of the newly created resource is provided in the Location header, along with the current JSON representation of the resource. If an error, such as a business rule violation, occurs, the details of the error are included in the response in JSON format.

Error Codes

Sometimes requests to the API are not successful. Errors can occur for a wide range of reasons. In all cases, the API returns a status code that indicates the nature of the failure with a response body containing additional information.

The PM Compass API uses the following error codes:

Code	Meaning	Description
400	Bad request	This error code indicates a missing or malformed parameter. Check the documentation and the syntax of the request and try again.
401	No authorization	This error code indicates that a valid API key was not provided with the request, so the API could not associate a user with the request.
403	Forbidden	This error code indicates that the user does not have access to the requested resource. The API key and request syntax were valid, but the server is refusing to complete the request.

Code	Meaning	Description
404	Not found	This error code indicates that either the object specified by the request does not exist, or the request method and path supplied do not specify a known API.
500	Internal server error	This error code indicate that there was a problem with the application server.
503	Service unavailable	This error code indicates that the server is temporarily unable to handle the request. This is not controlled by the PM Compass API itself.

Using the Import Progress API

The Import Progress API enables batch importing of progress, which can include multiple projects for Cost, Schedule, or both. The process determines whether the progress is entered into the cost system (work packages) or the schedule system (activities) as specified in the **Source System to Update** field on the Progress tab of the Projects form.

> **Attention:** For more information on this field, see the "Progress Tab of the Projects Form" topic in the Deltek PM Compass Help System under **Projects » Progress Form View » Progress Tab**.

This table outlines the steps needed to utilize the Import Progress API.

Step		Description	Reference
1	Set up the PM Compass API.	This step covers installing and setting up the PM Compass API to ensure effective utilization of the feature.	For more information, see "Setting Up the PM Compass API" in this guide.
2	Test your API platform using the PM Compass API Test Utility.	You can use this utility as an alternative or complement to Postman for performing basic tests on the PM Compass API.	For more information, see "Testing the API Using the PM Compass API Test Utility" in this guide.
3	Process the imported progress entries.	Use the Enter Progress forms to review and modify the imported progress entries as needed. If you encounter errors, you can check the status log and the API reports. Once any errors are resolved, or if you have completed your additional changes, you may proceed with submitting the workflow.	For more information, see "Processing the Imported Progress Entries" in the Deltek PM Compass Help System under **API » Import Progress API.**
4	Clear old, imported progress entries.	PM Compass provides a script that you can use to clear out old, imported progress entries. This step is optional.	For more information, see "Clearing Old Imported Progress Entries (Optional Step)" in this guide.

OpenAPI Specification Document

The PM Compass API is documented using OpenAPI Specification (OAS) 3.0. This document provides a detailed and standardized overview of the API's endpoints, structures, operations, and data models. It is a comprehensive guide for developers, enabling them to effectively understand and interact with the PM Compass API.

The PM Compass OAS document is available in the Deltek Learning Hub.

Note: To access the Deltek Learning Hub, go to https://learning.deltek.com/. On the Discover By Product page, click **Project Portfolio Management**. Locate **PM Compass** and click **View All**. On the PM Compass page, click **API Reference** in **Developer Resources**.

Setting Up the PM Compass API

This chapter details the steps for installing and setting up the PM Compass API to ensure effective utilization of the feature.

	Step	Reference
1	Install and configure Microsoft Internet Information Services (IIS).	For more information, see "Installing and Configuring Microsoft IIS" in this guide.
2	Install the PM Compass API.	For more information, see "Installing the PM Compass API" in this guide.
3	Enable Windows Authentication on the PM Compass API application in IIS.	For more information, see "Enabling Windows Authentication on the PM Compass Application in IIS" in this guide.
4	Create a data source.	For more information, see "Creating a Data Source" this guide.
5	Enable the endpoint permissions in EPM SA.	For more information, see "Enabling the Endpoints in EPM SA" in this guide.

Installing and Configuring Microsoft IIS

You must install and configure Microsoft Internet Information Services (IIS) on the server where you plan to install the PM Compass API. This section explains how to check if IIS is already installed and, if not, provides instructions on how to install and configure it.

> **Attention:** This information is documented in the "Microsoft Internet Information Services (IIS) Installation on Windows Server" section of the *Deltek PM Compass Installation Guide*.

Check if Microsoft (IIS) Is Already Installed

If you have already enabled the Web Server role on your web server, you need to check the features and role services.

To check the features and role services on Windows Server 2016 or 2019:

1. Launch Server Manager.
2. In the left menu, click **IIS**.

   If the IIS option is not listed, perform the steps for installing Microsoft IIS for the first time.
3. In the **Roles and Features** group, verify that all of the required role services are installed.

   > **Attention:** For more information, see Step 11 in "Install Microsoft IIS For the First Time" below.

Install Microsoft IIS for the First Time

Follow this procedure to install Microsoft IIS for the first time. These steps are necessary for the proper detection of ASP.NET.

To install Microsoft IIS on Windows Server 2016 or 2019:

1. Log onto Microsoft Windows Server as a domain or local administrator.
2. Launch Server Manager.
3. Click **Manage » Add Roles and features**.
4. On the Before you begin screen of the Add Roles and Features Wizard, click **Next**.
5. On the Select installation type screen, select **Role-based or feature-based installation** and click **Next**.
6. On the Select destination server screen, select your server and click **Next**.
7. On the Select server roles screen, select **Web Server (IIS)**.
    a. In the Add Roles and Features Wizard dialog box, click **Add Features**.
8. On the Select server roles screen, click **Next**.
9. On the Select Features screen, expand **.NET Framework 4.x Features**, select **.NET Framework 4.x and ASP.NET 4.x**, and click **Nex**t.
10. On the Web Server Role (IIS) screen, click **Next**.
11. On the Select role services screen, enable the following sub-options:

    Web Server

    - **Common HTTP Features**
        - Default Document
        - Directory Browsing
        - HTTP Errors
        - Static Content
        - HTTP Redirection
    - **Health and Diagnostics**
        - HTTP Logging
        - Request Monitor
    - **Performance**
        - Static Content Compression
    - **Security**
        - Windows Authentication
        - Request Filtering
    - **Application Development**
        - .NET Extensibility 4.x
        - ASP.NET 4.x

> **Note:** The Add Roles and Features Wizard dialog box displays when you select this option. Click the **Add Features** button.

- ISAPI Extensions
- ISAPI Filters

- **Management Tools**
  - IIS Management Console
  - IIS Management Scripts and Tools

12. Click **Next**.
13. In the Confirm Installation Instructions dialog box, click **Install** to begin the process.

> **Note:** On the Confirm installation selections screen, if a message displays about specifying an alternate source path, see the Microsoft KB Article # 2734782 (Method 2).

14. In the Installation Results dialog box, click **Close**.

> **Note:** If you have not applied the supported version of Microsoft.NET on your server, make sure you install it before beginning the PM Compass installation.

Installing the PM Compass API

Prior to installing the PM Compass API, take note of the following:

- You must install and configure Microsoft Internet Information Services (IIS) on the server where you plan to install the PM Compass API. This includes the SSL certificates you may want to use for the PM Compass API.

  > **Attention:** For more information on installing IIS, see "Appendix A: Microsoft Internet Information Services (IIS) Installation on Windows Server" in the *Deltek PM Compass Installation Guide*.

- You must have PM Compass 8.5 installed and running in your environment.
- Your DBA must run the scripts specified in this guide.

> **Note:** PM Compass API also requires the following components.
>
> - Microsoft .NET Windows Server Hosting version 8.0.8 or later
> - Microsoft Windows Desktop Runtime (x64) version 8.0.8 or later
>
> If the installer detects that these components are not installed, it will automatically install them.

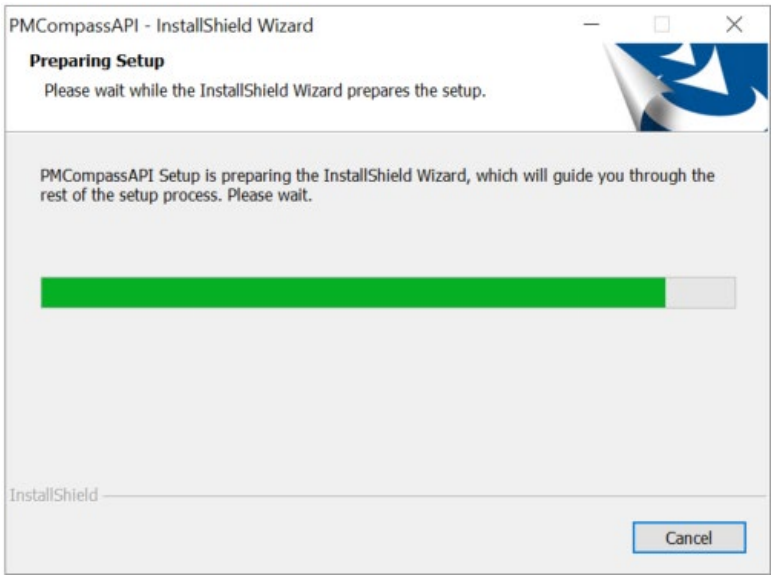
Install the PM Compass API

Follow this procedure to install the PM Compass API.

To install the PM Compass API:

1. Download the **DeltekPMCompassAPI.exe** installer from DSM.
2. Locate the folder where you downloaded the installer and double-click it to run the installation.

   The Preparing Setup screen displays. This screen checks if prerequisites like IIS are already installed and automatically installs those that are required, such as Microsoft .NET and Windows Desktop Runtime.

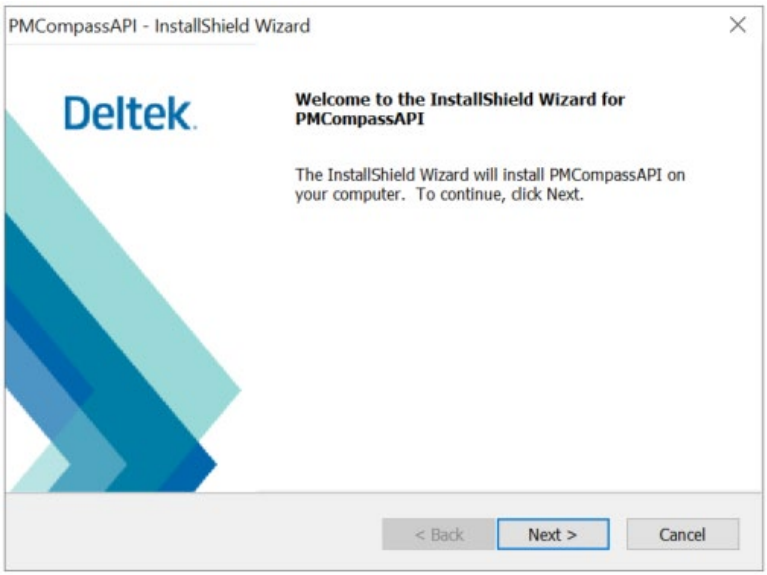


   If the installer detects that some required IIS features are missing, it displays a warning and exits.

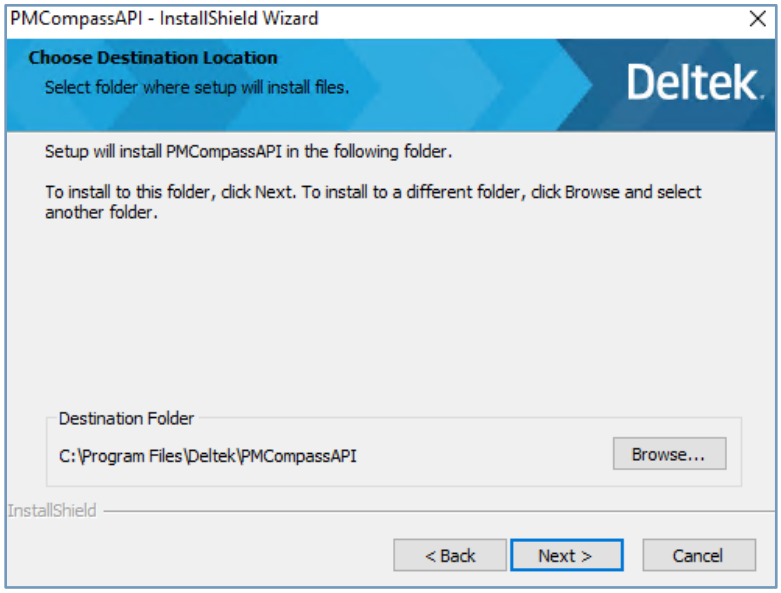
   Note: Clicking **OK** launches the **DeltekPMCompassAPI_disabledIISfeatures.txt**. file, listing the missing required IIS features that caused the warning message. The file is located in the **User\AppData\Local** folder. In addition, the installer creates a shortcut to the **PM Compass API Install.log** file on your desktop for easy access to the installation log file.

   After the prerequisite checks are performed and passed, and the installation of some prerequisites is completed, the installation proceeds.

3. On the Welcome screen, click **Next**.

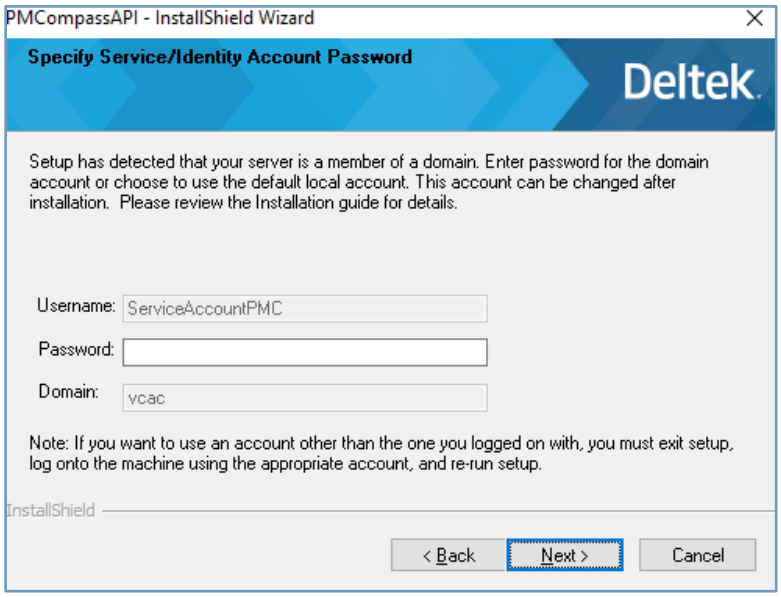


4. On the Choose Destination Location screen, specify the location to which you want to install the PM Compass API and click **Next**.



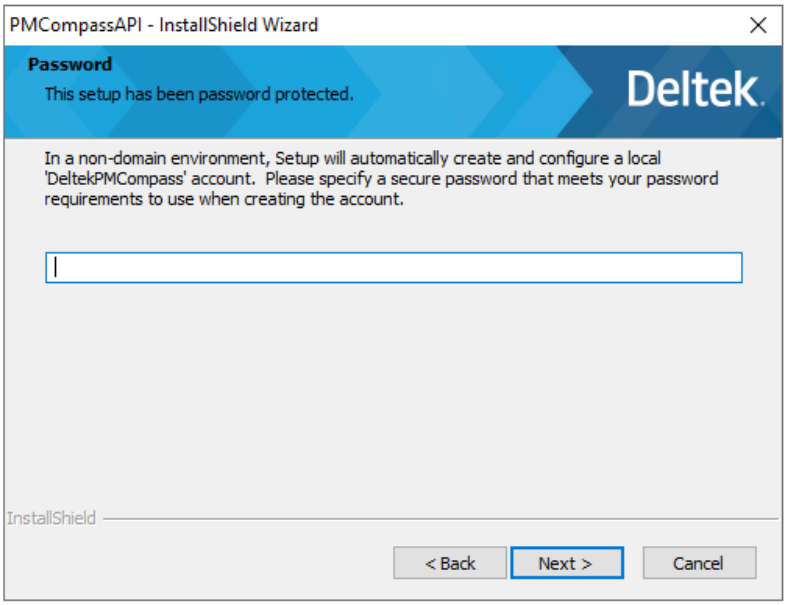
> **Note:** Deltek recommends using the default folder, which is **C:\Program Files\Deltek\PMCompassAPI**.

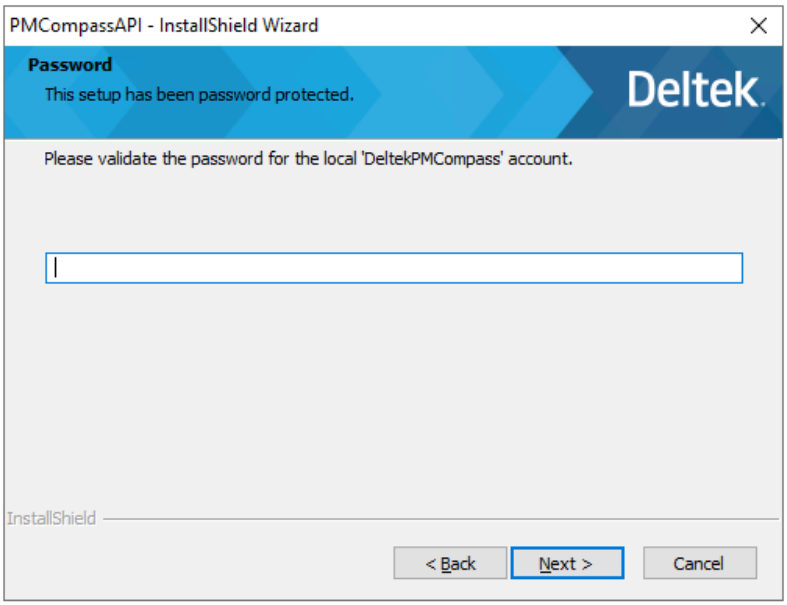
5. On the Specify Service/Identity Account Password screen, enter the service account credentials that will be used to configure the application pool.



Do one of the following:

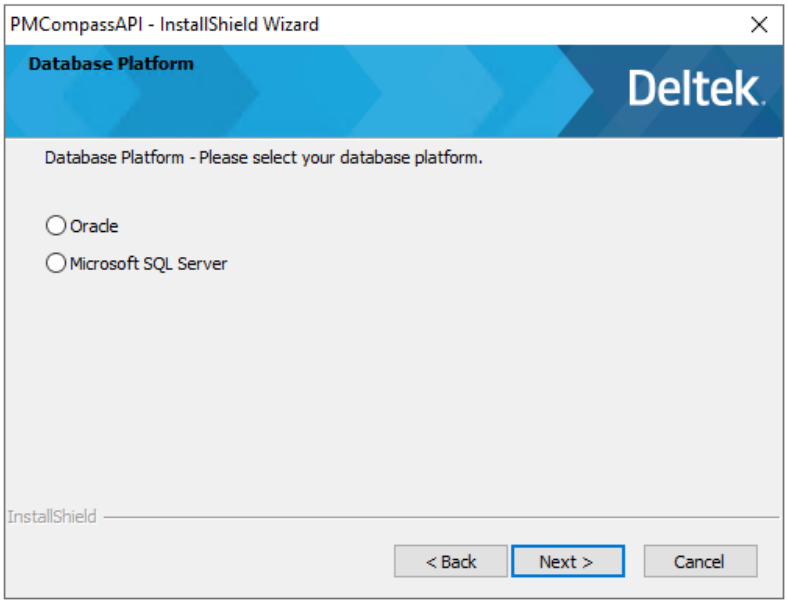
- Enter the password for the domain account and click **Next** to use the logged-on domain account.
- If the machine is not in a domain or you are logged on using a local/non-domain account, the setup will prompt you to enter a password for the **Default Local Account (DeltekPMCompass)** it creates when the logged-on user is not a domain account.





Note: If you choose to use the default local account, the setup will request a password that will be assigned to the local "DeltekPMCompass" account being created on the local machine. The setup does not save this account or log it anywhere, so you must keep it in a safe place.

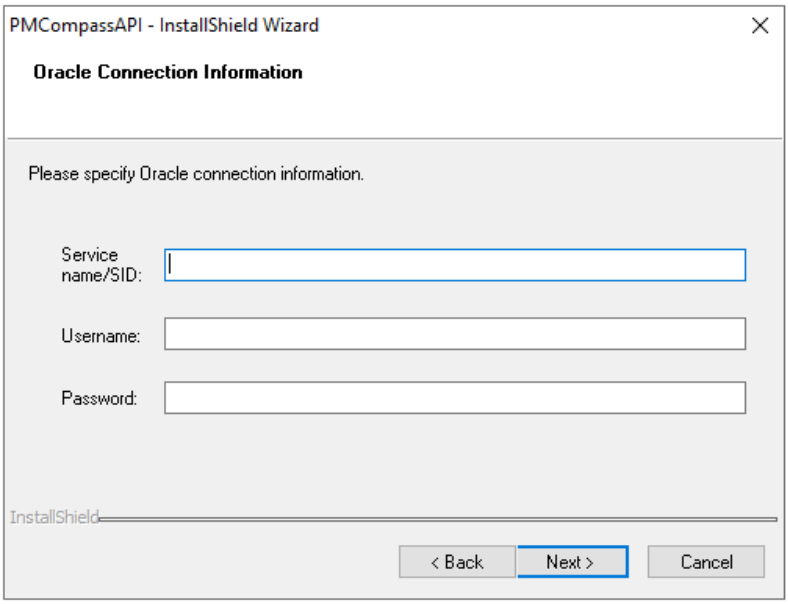
6. On the Database Platform screen, select the option that matches your database platform.



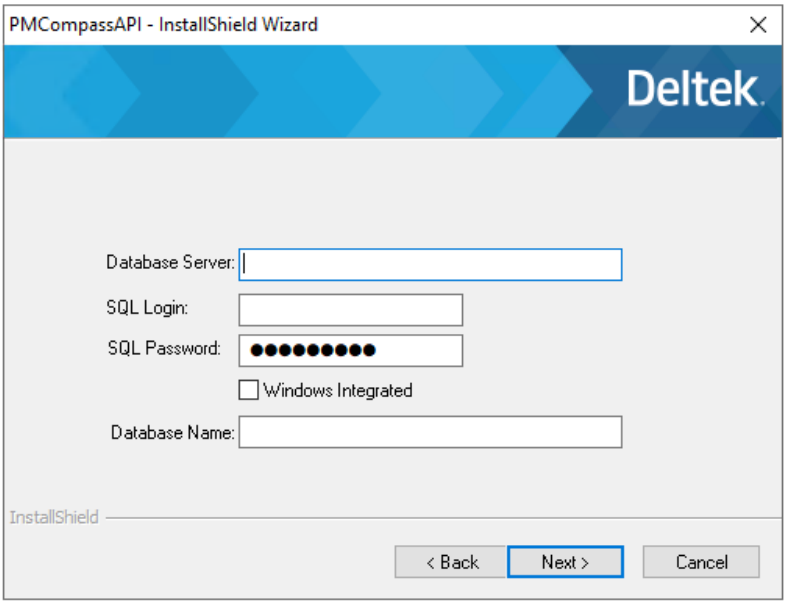
- If you select **Oracle**, enter your connection information on the Oracle Connection Information screen and click **Next**.

> **Note:** If you are using an Oracle database, you must also install the 64-bit Oracle Database Client (Administrator) on the API Server.

The installer will check for the 64-bit Oracle Management. If it is correct, it will register the Oracle Data Access components for you and display the Script Options screen.

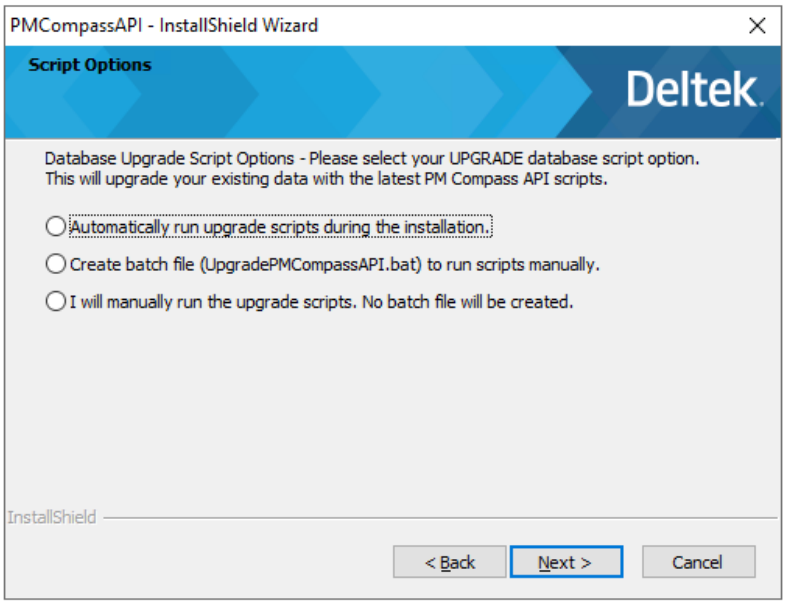


- If you select **Microsoft SQL Server**, enter your connection information and click **Next**.

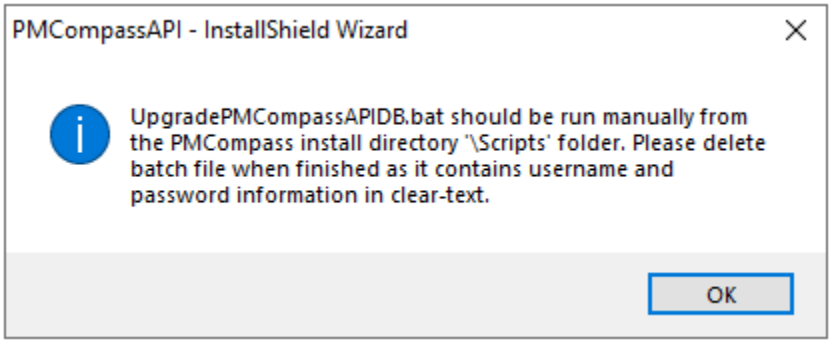


The installer will attempt to connect, and if the connection is valid, it will display the Script Options screen.

7. On the Script Options screen, select the upgrade option to apply the scripts on the PM Compass database and click **Next.**



- If you select **Automatically run upgrade scripts during the installation,** the installer will apply the scripts to your database during the installation.
- If you select **Create batch file (UpgradePMCompassAPI.bat) to run scripts manually**, the installer will create a batch file containing the connection credentials you specified on the screen. You must run it in an elevated command prompt after the installation to update the database. The installer will display the location of the batch file.



- If you select **I will manually run the upgrade scripts. No batch file will be created**, perform the following steps after the installation has been completed:

  a. Run an elevated command prompt and navigate to the folder where the PM Compass API is installed.

     The script files are located in the **\PMCompasAPI\Database\Scripts** directory.

  b. Depending on your database platform, navigate to the SQLServer or Oracle directory.

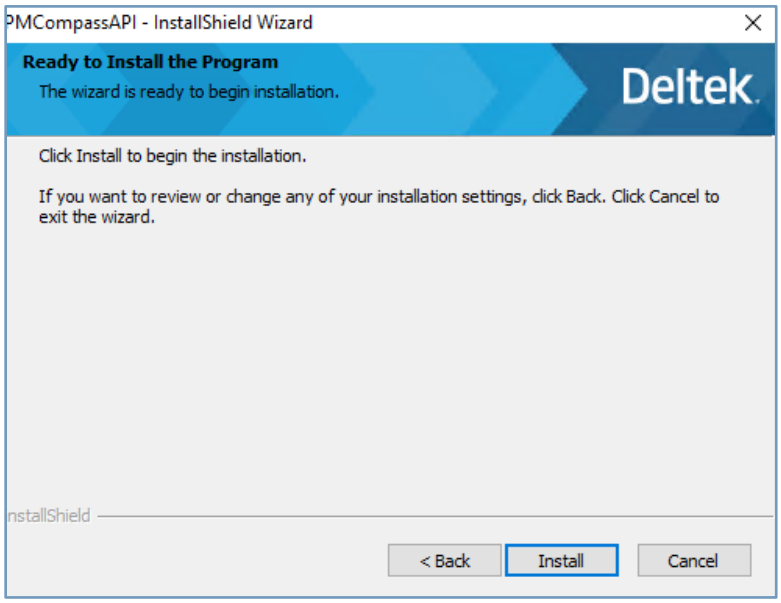
     - If you are using SQL Server, run the **RunPMCompassAPIInstallUpgrade_SqlServer.bat** file, passing the connection details separated by a space in the following order: Database Name, DB Server\Instance Name, SQL User ID, Password.

       For example: RunPMCompassAPIInstallUpgrade_SqlServer.bat PMCompass ServerA PMCLogin Password

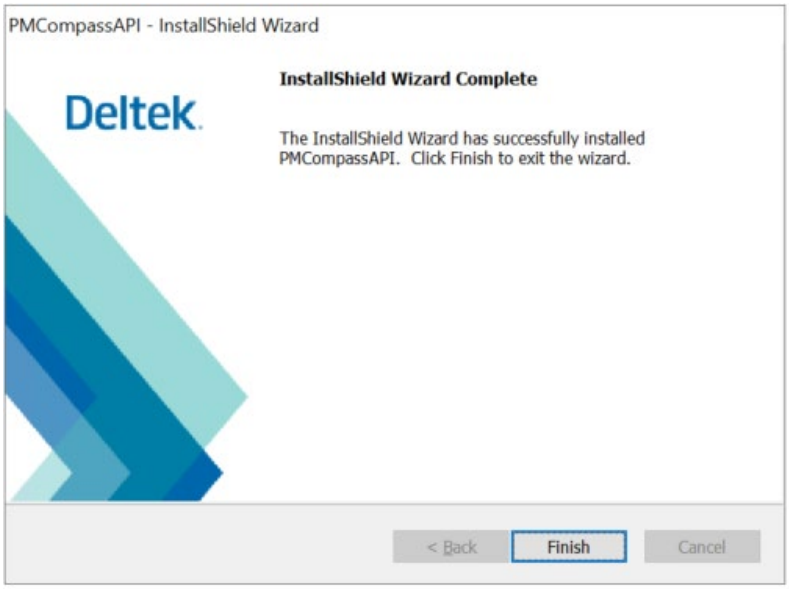
- If you are using Oracle, run the **RunPMCompassAPIInstallUpgrade_Oracle.bat** file, passing the connection details, separated by a space in the following order: Server\Instance Name User ID (Schema) Password.

  For example: RunPMCompassAPIInstallUpgrade_Oracle ORCL PMCompass Password

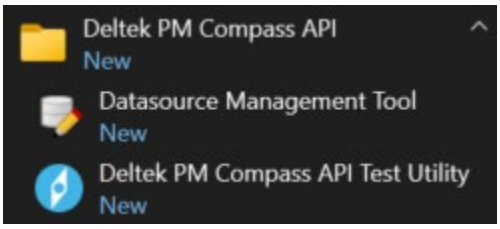
8. On the Ready to Install the Program screen, click **Install**.



9. On the InstallShield Wizard Complete screen, click **Finish**.



After the installation is complete, the Deltek PM Compass API folder becomes available on the **Start** menu.



API Reference Files

Reference files for using the API are included with the API installation. These files are located in the **<PM Compass API directory>\doc** folder, for example, **C:\Program Files\Deltek\PMCompassAPI\doc\.**

The table below outlines these files, along with their descriptions and subfolder locations.

File	Description	Subfolder Location
PMCWebApiSample .sln	This solution includes projects written in C# (.NET 8) that demonstrate how to call the PM Compass API from C#. **Attention:** For more information on this solution, see "Appendix A: Sample C# .NET Solution" in this guide.	**Examples\CSharpConsole** For example, C:\Program Files\Deltek\PMCompassAPI\doc\Examples\ CSharpConsole\
Sample-ImportProgress-CostOnly.json	This is a sample JSON file containing cost-only data.	**\Examples\JSONSamples** For example, C:\Program Files\Deltek\PMCompassAPI\doc\Examples\JSONSamples\
Sample-ImportProgress-ScheduleOnly.json	This is a sample JSON file containing schedule-only data.	**\Examples\JSONSamples** For example, C:\Program Files\Deltek\PMCompassAPI\doc\Examples\JSONSamples\
Sample-ImportProgress.json	This is a sample JSON file containing cost and schedule data.	**Examples\JSONSamples** For example, C:\Program Files\Deltek\PMCompassAPI\doc\Examples\JSONSamples\
ImportProgress-Schema.json	This is a JSON schema for import progress.	**\JSONSchema** For example, C:\Program Files\Deltek\PMCompassAPI\doc\JSONSchema\
PMCompassAPI-OAS3.json	This sample file outlines the import schedule and cost	**\OpenApiSpecification**

File	Description	Subfolder Location
	progress, detailing the endpoints and their structures.	For example, C:\Program Files\Deltek\PMCompassAPI\doc\OpenAPISpecification\
PMCompassAPI-Sample.postman_collection.json	This file contains the latest Postman collection.	**\Postman** For example, C:\Program Files\Deltek\PMCompassAPI\doc\Postman\
API-PreValidationMatrix.xlsx	This spreadsheet details the validations performed by the API. If any validation fails, only the specific records that fail will be rejected and not saved to the database for processing. The response will list all encountered errors, preventing the need for a repetitive fix and resubmit cycle. However, any malformed or invalid JSON will cause the entire batch to be rejected before any validations are executed.	For example, C:\Program Files\Deltek\PMCompassAPI\doc\

Enabling Windows Authentication on the PM Compass API Application in IIS

Once the installation is complete, you must enable Windows Authentication on the PM Compass API application in IIS.

Note: When you enable Windows Authentication, make sure to turn off Anonymous Authentication.

Enable Windows Authentication on the PM Compass API Application in IIS

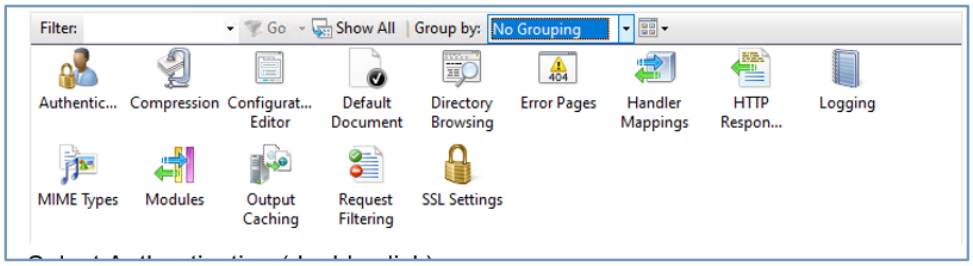
Follow this procedure to enable Windows Authentication on the PM Compass API application or virtual directory in IIS.

As a prerequisite to this procedure, ensure that Windows Authentication is installed and enabled for IIS.

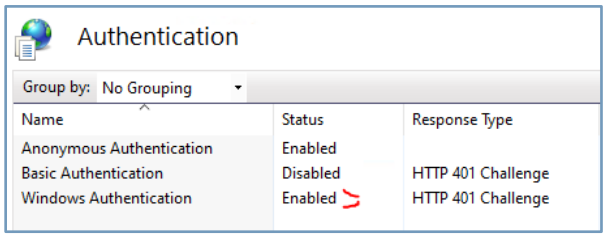
To enable Windows Authentication on the PM Compass API application:

1. Log into Microsoft Windows Server as a domain or local administrator.
2. Launch Server Manager.
3. Navigate to **Sites » Default Web Site** and select **PMCompassAPI**.

4. In the right pane, select **No Grouping** in the **Group by** drop-down list.



5. Double-click **Authentication**.
6. In the left pane, enable Windows Authentication.



Creating a Data Source

Use the PPM Datasource Management Tool to create a data source that you will use to connect to the PM Compass API.

The following providers are currently supported:

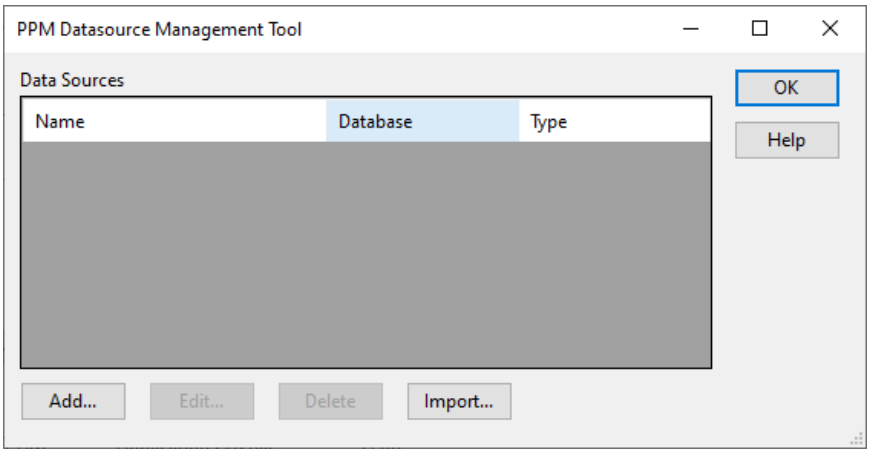
- Microsoft SQL Server
  - Microsoft OLE DB Driver for SQL Server
  - SQL Server Native Client 11.0
  - SQL Server .NET Framework
- Oracle
  - Oracle Provider for OLE DB
  - Oracle ODP.NET

Create a Data Source

Follow this procedure to create a data source.

To create a data source:

1. Launch the PPM Datasource Management Tool.



2. Click **Add**.
3. In the Add Data Source dialog box, click the General tab and enter or select the values in the **Name**, **Schema**, and **Provider** fields.
4. Click the **Configure** button.
5. In the Data Link Properties dialog box, enter or select values in the appropriate fields on each tab.
6. Click the **Test Connection** button to verify if the connection information is correct.

Note:

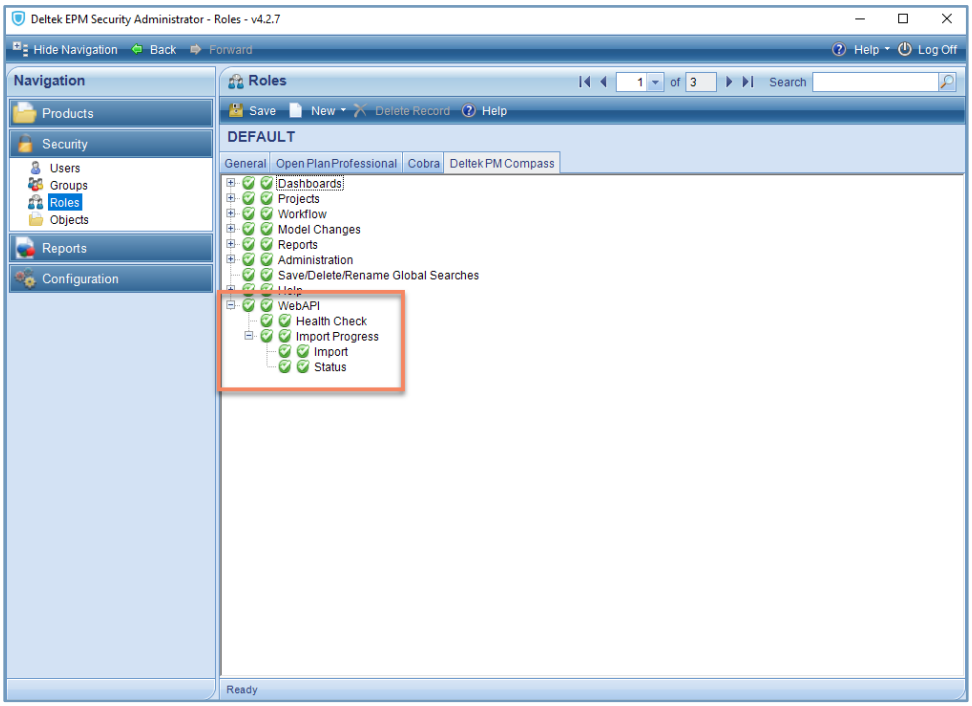
- If you are using Oracle ODP.NET as your provider, you must specify the Oracle connection details in the format **ServerName/Instance**. For example, if your Oracle server is named **ServerA** and the Oracle instance is **ORCL**, then your Data Source value would be **ServerA/ORCL**.
- If you are adding a new entry using the SQL Server .NET Framework data provider, after clicking **Configure** and updating the **Server Name** field, you may need to click the Advanced tab, scroll to the Security section, and set the fields below to **True** before entering a database name in the **Select or enter a database name** field.
  - **Persist Security Info**
  - **Trust server Certificate**

Note: If you encounter errors related to the PPM data source, review the data source log files for more information.

By default, the log files are located in **C:\ProgramData\Deltek\PPMDatasources\Logs**.

Enabling the Endpoints in EPM SA

The **WebAPI** node of the Deltek PM Compass tab controls the permissions for each API process endpoint.



WebAPI Item	Description
Health Check	Use this item to set the permission for the Health Check endpoint and confirm that the API and database are running and ready to receive requests.
Import Progress	Use the child nodes in this item to set the permission for the following: ▪ **Import**: Use this item to set the permission for the Import Progress endpoint. ▪ **Status**: Use this item to set the permission for the Import Progress Status endpoint.

Attention: The WebAPI node and its items are documented in the "Web API" topic in the Deltek EPM SA Help System under **Security » Define Roles and Permissions » Forms, Toolbars, Tabs, and Dialog Box » Deltek PM Compass Tab of Roles**.

Enable the Endpoints in EPM SA

Follow this procedure to enable the endpoints in EPM SA to utilize the Import Progress API feature.

To enable the endpoints in EPM SA:

1. Log into EPM SA.
2. From the **Navigation** menu, click **Security » Roles**.

The Roles form is displayed on the right pane. The General tab is displayed by default.

3. Click the Deltek PM Compass tab.
4. Expand the **WebAPI** node and set the permission for each item.

   By default, all items in the node are selected.

Testing the API Using the PM Compass API Test Utility

Deltek provides a simple, web-based tool called the Deltek PM Compass API Test Utility. This tool can be used as an alternative or complement to Postman for basic testing of the PM Compass API. The utility is installed along with the PM Compass API.

Note: You can also use the sample Postman collection provided by Deltek to help you get started with the PM Compass API. For more information on this collection, see "Appendix B: Sample Postman Collection" in this guide.

Important: JSON is a widely used data interchange format that is lightweight, easy to read, and easy to parse. However, one limitation of JSON is that it does not natively support comments. While some tools, such as Postman, may strip comments before sending them, you cannot always rely on this.

For example, the Deltek PM Compass API Test Utility does not pre-parse your input to strip comments.

Attention: For more information on the PM Compass OAS document, see "OpenAPI Specification Document" in this guide.

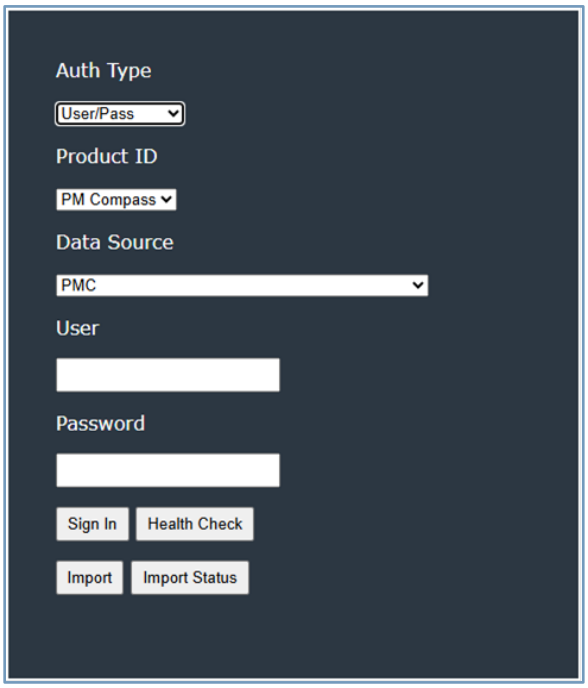
Launching the Utility

There are two ways to launch the utility.

- Navigate to **Start » Deltek PM Compass API » Deltek PM Compass API Test Utility**.
- Access the URL **https://{FQDN}/PMCompassAPI/APITestUtility.html**, where **FQDN** is the fully qualified domain name of the server (for example, https://serverx.domain.com/PMCompassAPI/APITestUtility.html.)

Utility Interface

The utility interface is displayed below.



The table below details the fields and buttons available in the utility.

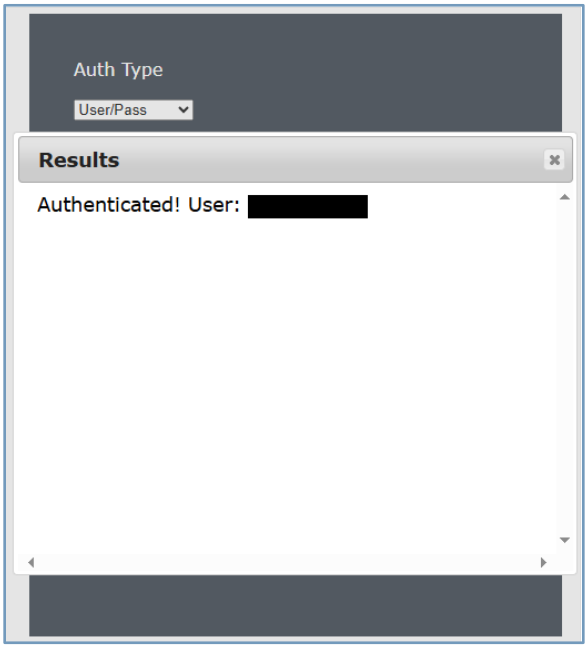
Field and Button	Description
Auth Type	Use this field to specify your authentication method. Your options are: ▪ **User/Pass** ▪ **Windows Auth**
Product ID	Use this field to select the product, specifically **PM Compass**.
Data Source	Use this field to select your data source. If your data source is not visible, restart the API's application pool and refresh the page once it has restarted. **Attention:** For more information on the API application pool, see "Enable Windows Authentication on the PM Compass API Application in IIS" in this guide.
User	Use this field to enter your PM Compass username when the **Auth Type** field is set to **User/Pass**.

Field and Button	Description
Password	Use this field to enter your PM Compass password when the **Auth Type** field is set to **User/Pass**.
Sign In	Click this button to log into the utility.
Heath Check	Click this button to test the Health Check endpoint.
Import	Click this button to test the Import Progress endpoint.
Import Status	Click this button to test the Import Progress Status endpoint.

Authentication Testing

To test your authentication method, select either **User/Pass** or **Windows Auth** in the **Auth Type** field. If you select **User/Pass**, enter your PM Compass username and password in the appropriate fields. Set the **Product ID** to PM Compass, select your data source, and click the **Sign In** button.

The utility displays a message similar to the following:



Note: Depending on your browser, you might be asked to enter your network credentials.

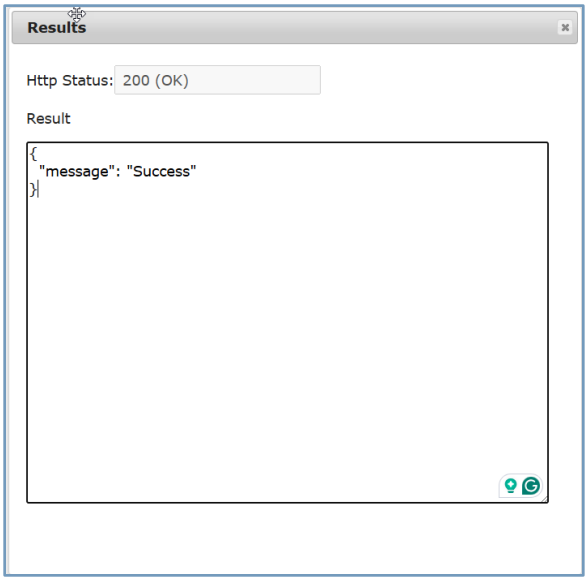
Endpoint Testing

This section explains how to use the utility to test the endpoints.

Health Check Endpoint

Test the Health Check endpoint to determine if the API is running and has a connection to the database. To test the Heath Check endpoint, click the **Heath Check** button.

The utility displays a message similar to the following:



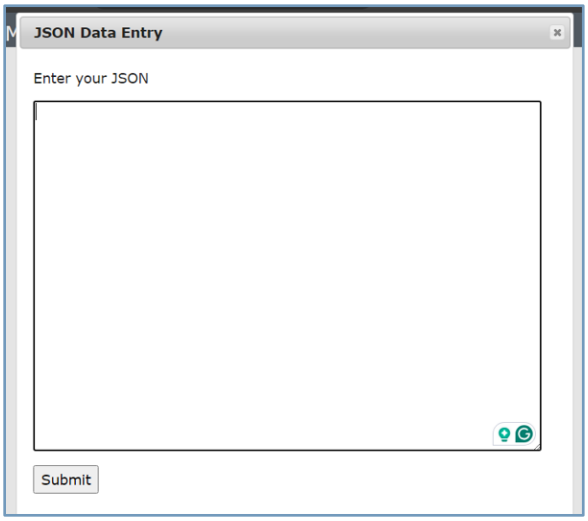
Import Progress Endpoint

To test the Import Progress endpoint, click the **Import** button.

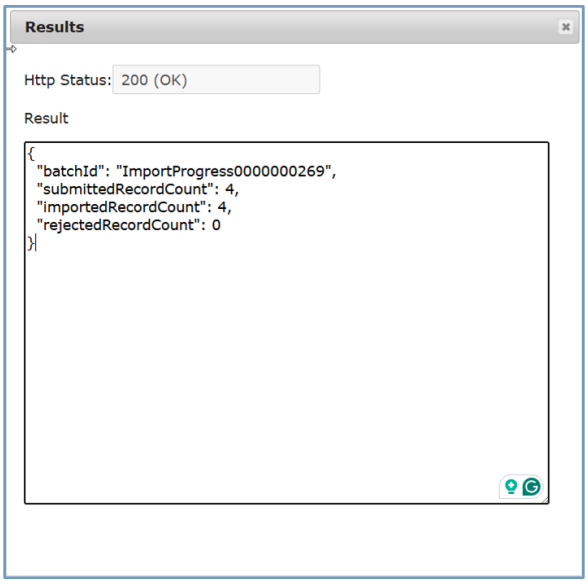
The utility prompts you to enter the JSON data for Import Progress. Enter your valid JSON payload in this dialog box and click the **Submit** button. Alternatively, you can use the **Sample-ImportProgress.json**, **Sample-ImportProgress-CostOnly.json**, or **Sample-ImportProgress-ScheduleOnly.json** file located

in the **\doc\Examples\JSONSamples** subfolder of the PM Compass API directory. Open the file in a text editor and copy its contents.

> **Attention:** For more information on this file, see "API Reference Files" in this guide.



The utility displays a message similar to the following:

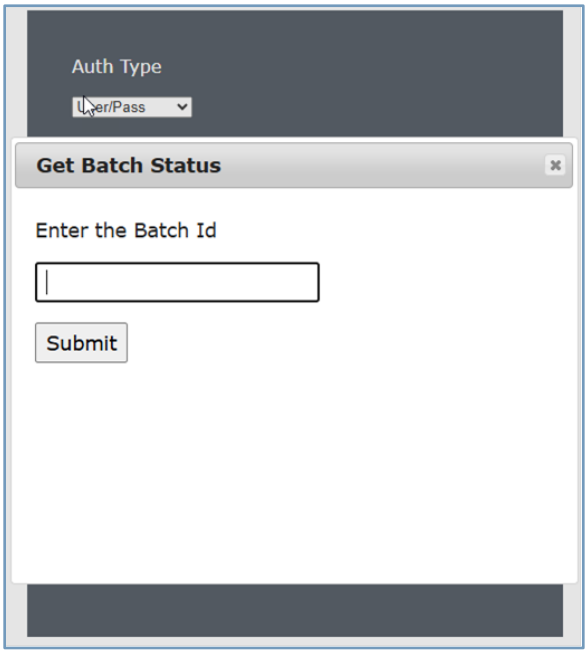


Save the **batchId** value, as it will be used to check the status of Import Progress.

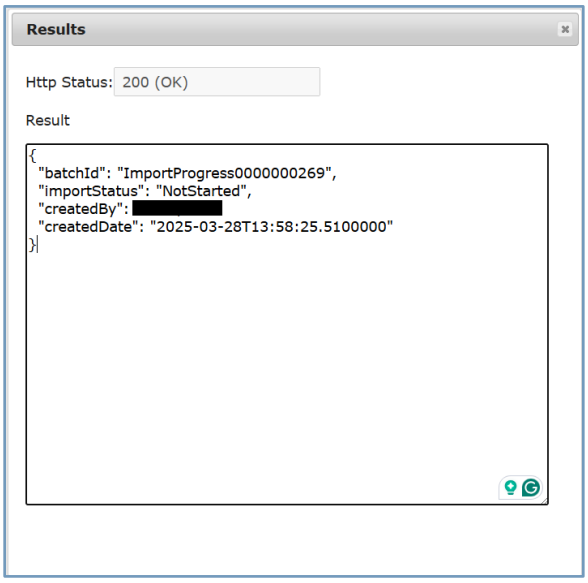
Import Progress Status Endpoint

To test the Import Progress Status endpoint, click the **Import Status** button.

The utility prompts you to enter the Batch Id for Import Progress. Enter the **batchId** value obtained when you tested the Import Progress endpoint and click the **Submit** button.



The utility displays a message similar to the following:



Processing the Imported Progress Entries

Use the Enter Progress forms to review and modify the imported progress entries as needed. If you encounter errors, you can check the status log and the API reports. Once any errors are resolved, or if you have completed your additional changes, you may proceed with submitting the workflow.

Attention: For more information on how PM Compass processes the imported progress entries, see "Processing the Imported Progress Entries" in the Deltek PM Compass Help System under **API » Import Progress API**.

Clearing Old Imported Progress Entries (Optional Step)

PM Compass provides a script that you can use to clear out old, imported progress entries.

- **PMC_RemoveImportData_Oracle.sql**, located in the **<PM Compass Installation Directory>\Databases\Scripts\Oracle** folder
- **PMC_RemoveImportData_SQL.Serversql**, located in the **<PM Compass Installation Directory>\Databases\Scripts\SQL** folder

While it is not mandatory to remove old entries, over time, the accumulation of entries can cause the Summary report to take longer to display. When this happens, you should run the query to improve performance.

You can modify the script to specify a date range for removing these entries. The date highlighted in red needs to be modified.

```
--Change the date below using 'YYYY-MM-DD' formatting. Only data imported prior to this date will be deleted.
Declare @deleteBeforeDate DATE = '2024-08-01'
Declare @batchesSelected INTEGER = 0
```

Resolving Errors Related to Processing Large Batches

When processing large batches in the Deltek PM Compass API, you may encounter errors due to the default content length limits.

To resolve this issue, you need to update the **web.config** file located in the <PM Compass API directory> folder, for example, **C:\Program Files\Deltek\PMCompassAPI**.

Update the web.config File

Follow this procedure to update the **web.config** file and resolve the errors.

To update the file:

1. Navigate to the <PM Compass API directory> (for example, **C:\Program Files\Deltek\PMCompassAPI**) and open the web.config file using a text editor.
2. Locate the <aspNetCore> section, and add the following lines below it:

```
<security>
        <requestFiltering>
            <requestLimits maxAllowedContentLength="4294967295" />
        </requestFiltering>
    </security>
```

> **Note:** Set **maxAllowedContentLength** to your preferred value

3. Save the file.

Here is an example of how the updated **web.config** file should look, including the new section to resolve the error.

```
<?xml version="1.0" encoding="utf-8" ?>
    <configuration>
        <system.webServer>
            <validation validateIntegratedModeConfiguration="false" />
            <urlCompression doStaticCompression="true"
doDynamicCompression="true" />
            <handlers>
                <add name="aspNetCore" path="*" verb="*"
modules="AspNetCoreModuleV2" resourceType="Unspecified" />
                <add path="*" name="ServiceStack.Factory"
preCondition="integratedMode" type="ServiceStack.HttpHandlerFactory,
ServiceStack" verb="*" resourceType="Unspecified" allowPathInfo="true" />
            </handlers>
            <aspNetCore processPath="dotnet"
arguments=".\PMCompass.WebService.ASPNetHost.dll" stdoutLogEnabled="false"
stdoutLogFile=".\logs\stdout" hostingModel="inprocess" />
```

```
            <security>
                <requestFiltering>
                    <requestLimits maxAllowedContentLength="4294967295" />
                </requestFiltering>
            </security>
            <!--<security>
            <authentication>
                <windowsAuthentication enabled="true" />
                <anonymousAuthentication enabled="true" />
            </authentication>
            </security>-->
        </system.webServer>
    </configuration>
```

Appendix A: Sample C# .NET Solution

The sample C# .NET 8.0 solution, **PMCWebApiSample.sln,** demonstrates how to access the PM Compass API using C# code.

The sample solution includes:

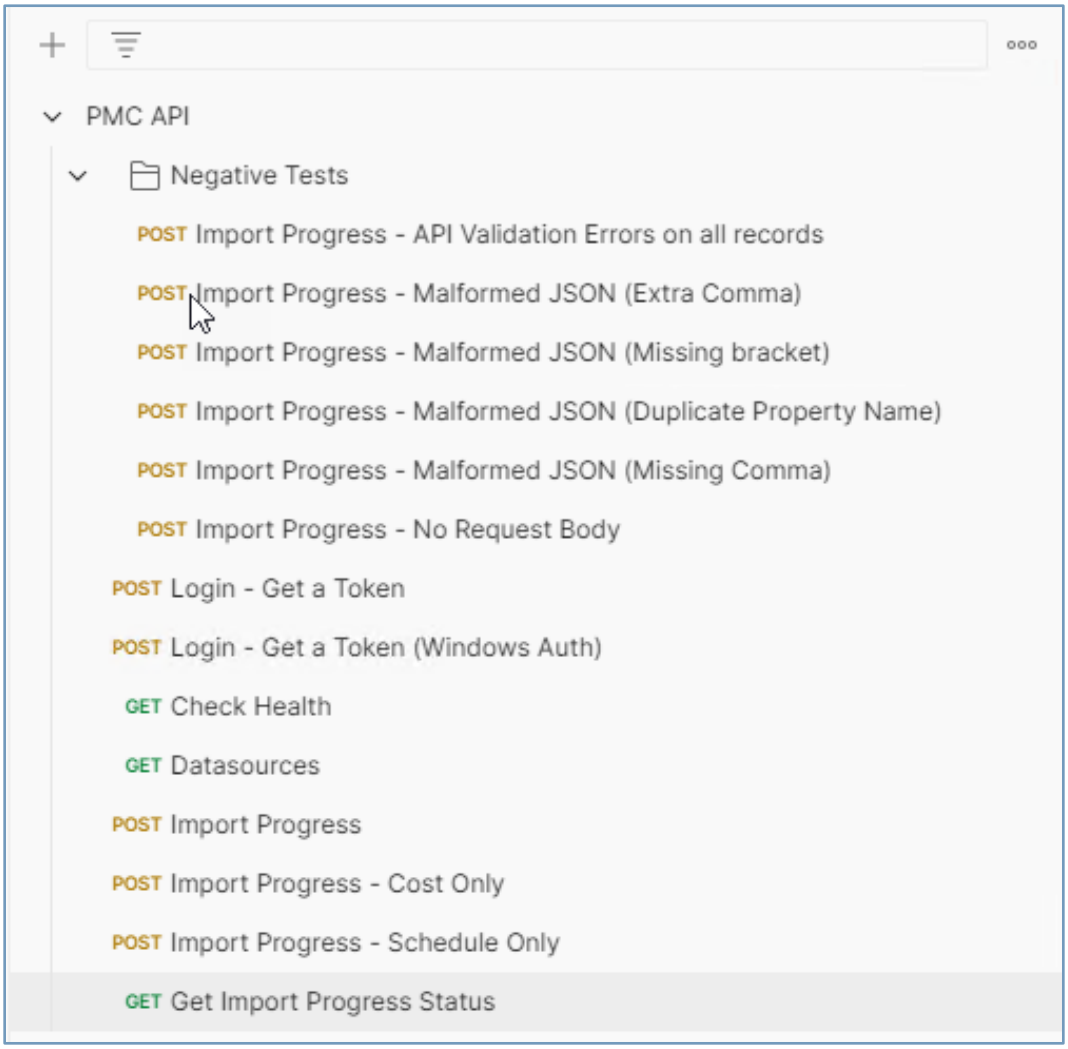
- A sample library with code that wraps the API calls for easier use
- A sample console application with code that shows how to log into the API using both native and Windows authentication methods and call all the endpoints in the API
- A sample console application with code that shows how to log into the API using both native and Windows authentication methods and call the Health Check endpoint

Attention: For more information on the location of this file, see "API Reference Files" in this guide.

Appendix B: Sample Postman Collection

This appendix covers a sample Postman collection Deltek has provided to help you get started with the PM Compass API.

The collection includes tests for data sources, authentication, endpoints, and negative API validations.



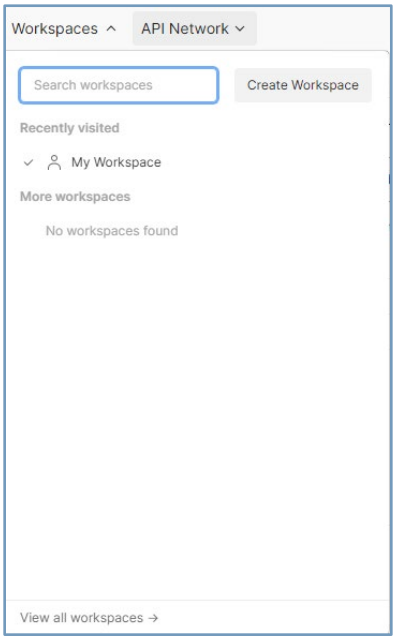
Note: Depending on your network configuration, you may need to run Postman as an administrator. Postman is installed on a per-user basis.

Launch Postman

Follow these steps if you are launching Postman for the first time.

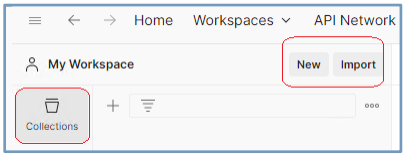
To launch Postman:

1. Upon first launch, you will be prompted to sign in, create an account, or use the Lightweight API Client. If you choose to use the provided collection, you must sign in or create an account, as the lightweight client does not support importing the collection.
2. In the upper-left part of the screen, click **Workspaces**.

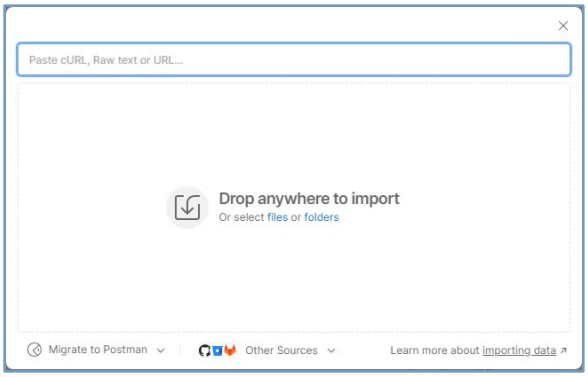


3. Select **My Workspace** to display the **New** and **Import** buttons.

   If you do not see the buttons, click **Collections** on the left side of the screen.

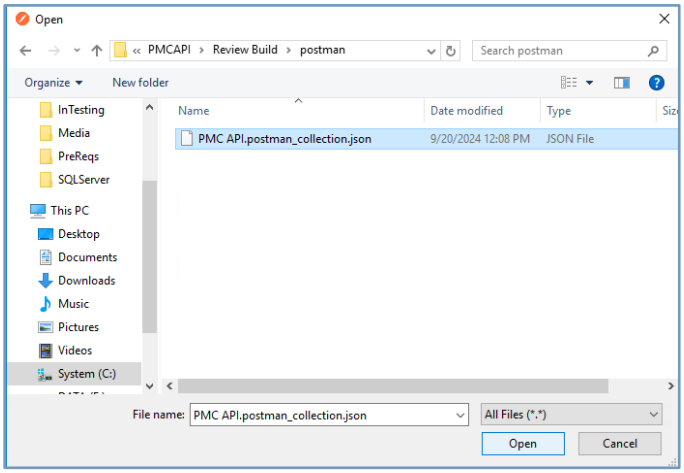


4. Click the **Import** button to display the Drop anywhere to import screen.



5. Click the **Files** link to open the File Explorer, navigate to the location of the collection file, **PMCompassAPI-Sample.postman_collection.json**, and select the file.

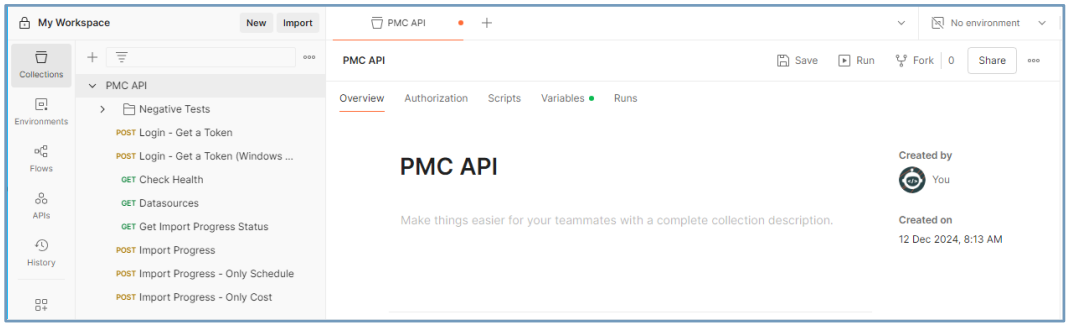
> **Attention:** For more information on this file, see "API Reference Files" in this guide.



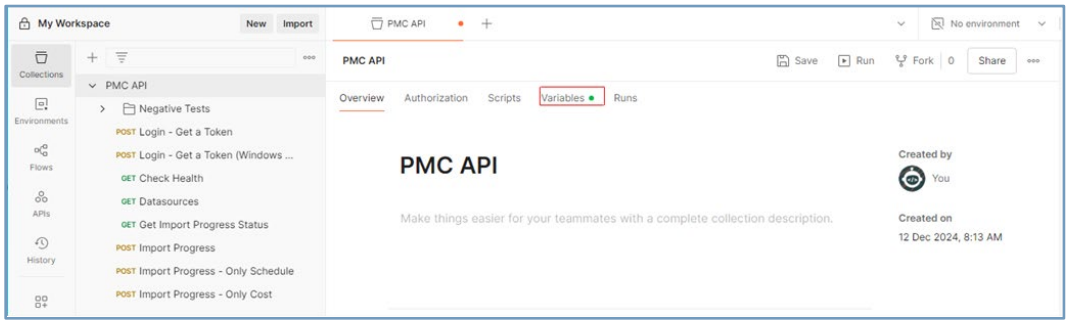
The collection should be loaded as PMC API.

6. Configure your access to the API by performing the following:

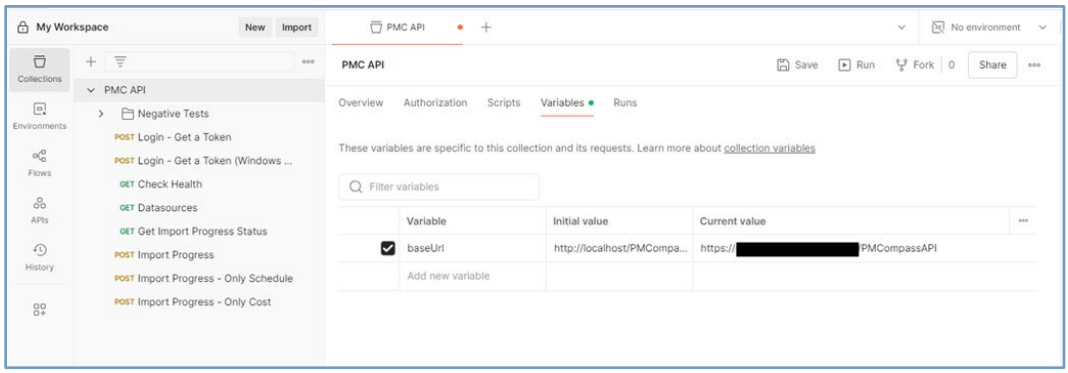
   a. Click **PMC API** to display its overview on the main screen.



   c. Click the Variables tab.



   d. Set the current value of the **baseUrl** to your server address and path, for example, https://myhost.domain.com/PMCompassAPI and click **Save**.



Data Sources

This section explains how to use the utility to retrieve the data sources configured in the API.

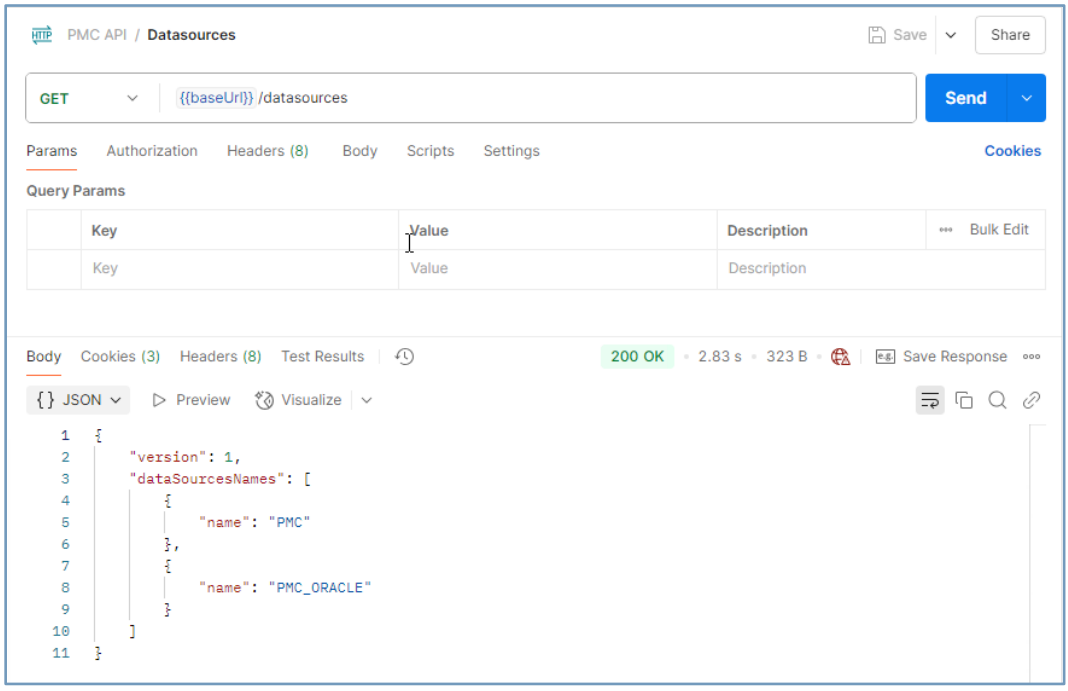
Retrieve the Data Sources

Follow this procedure to retrieve the data sources that are configured in the API. These data sources can be used as a value in the **datasource** parameter during the authentication process.

To retrieve the data sources:

1. In the left pane, click **Datasources**.
2. Click the **Send** button.

   The screen displays as shown below:



Authentication

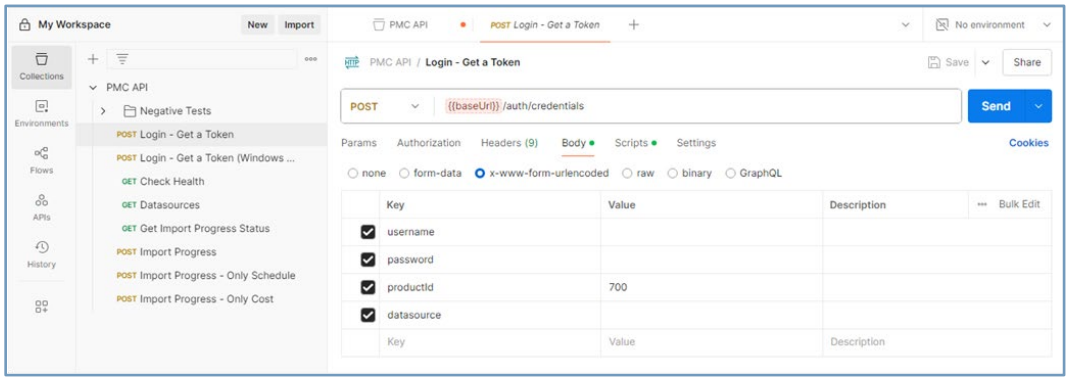
You must call the Authentication (or Login) endpoint to retrieve a token and cookies required for accessing secured endpoints. You can use either **User/Pass Authentication** or **Windows Authentication**.

Use User/Pass Authentication

Follow this procedure to test your authentication using your PM Compass user accounts.

To use your PM Compass user account:

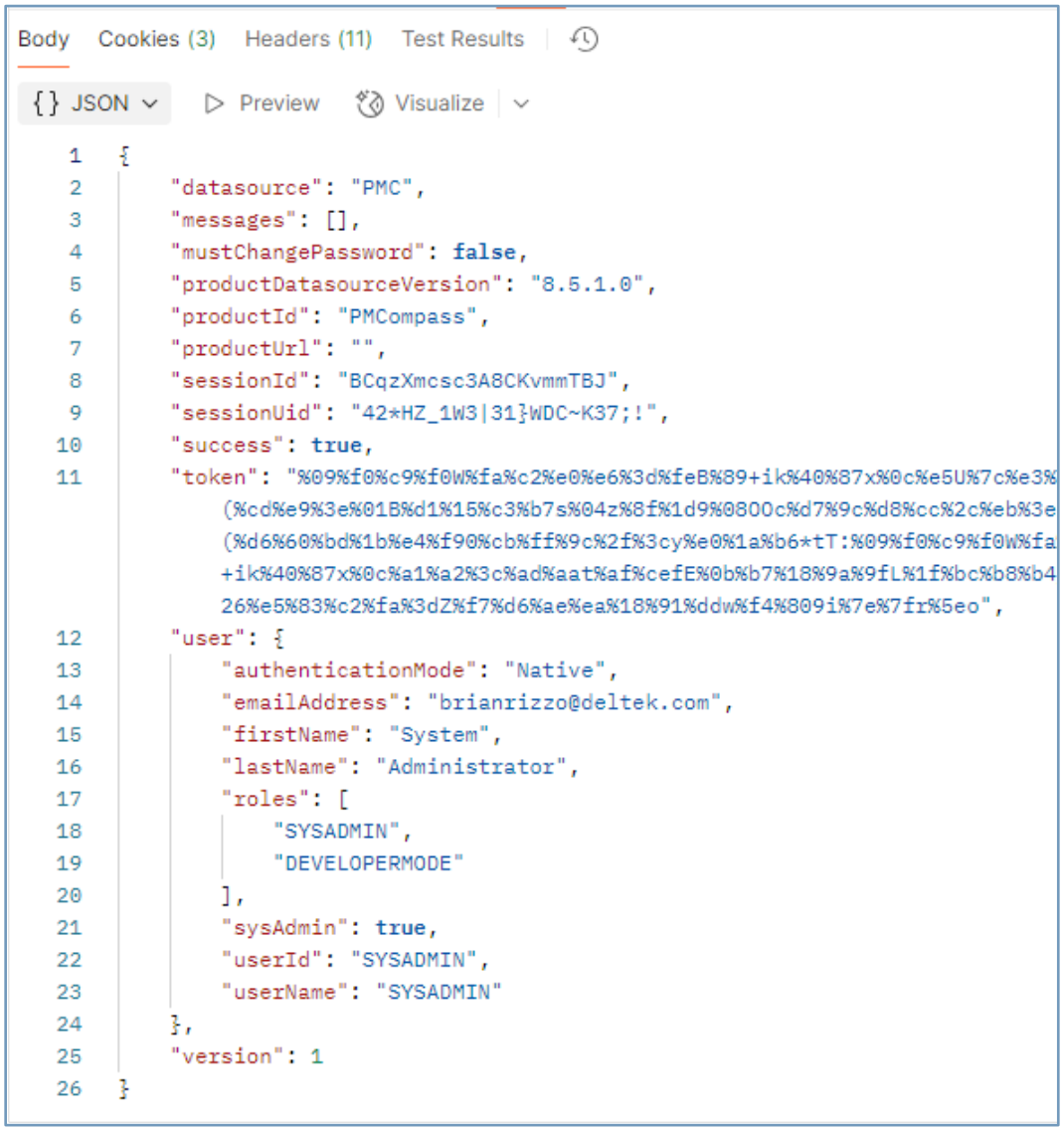
1. In the left pane, click **Login » Get a Token**.



2. In the right pane, click the Body tab and edit the content.
3. Enter your PM Compass user name and password and click the **Send** button.

> **Note:** Do not save your password here, as it will be stored in plain text.

The screen displays as shown below:



Use Windows Authentication

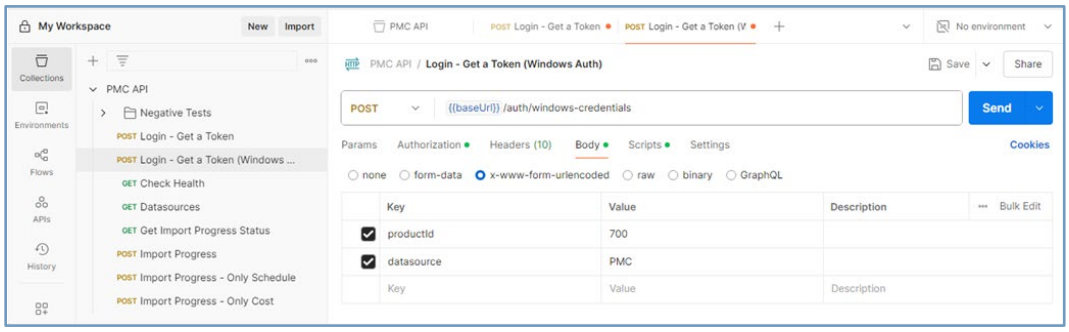
Follow this procedure to test your authentication using Windows Authentication.

> **Note:** To use Windows Authentication, you must configure the site in IIS to support Windows Authentication. For more information, see "Enabling Windows Authentication on the PM Compass API Application in IIS" in this guide.

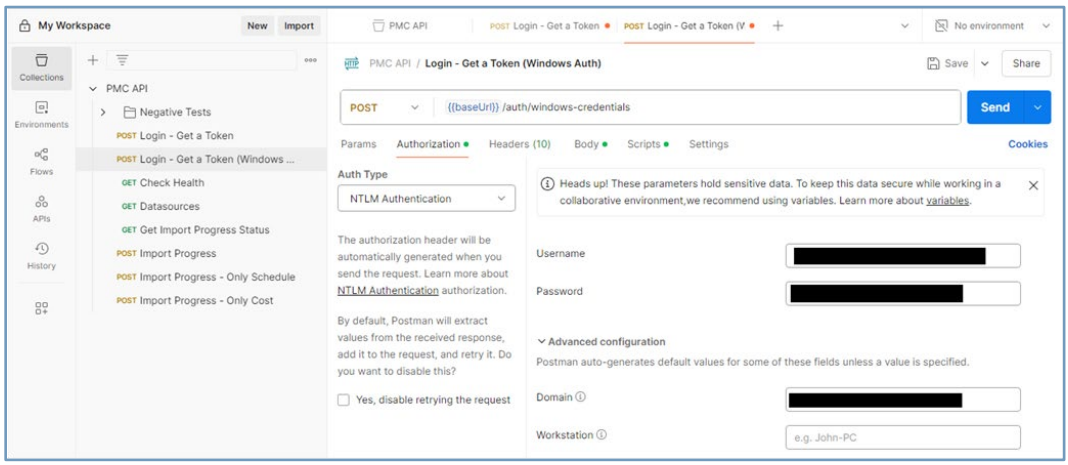
To use Windows Authentication:

1. In the left pane, click **Login » Get a Token (Windows Auth)**.

> **Note:** You may need to expand the left pane to display the entire name.



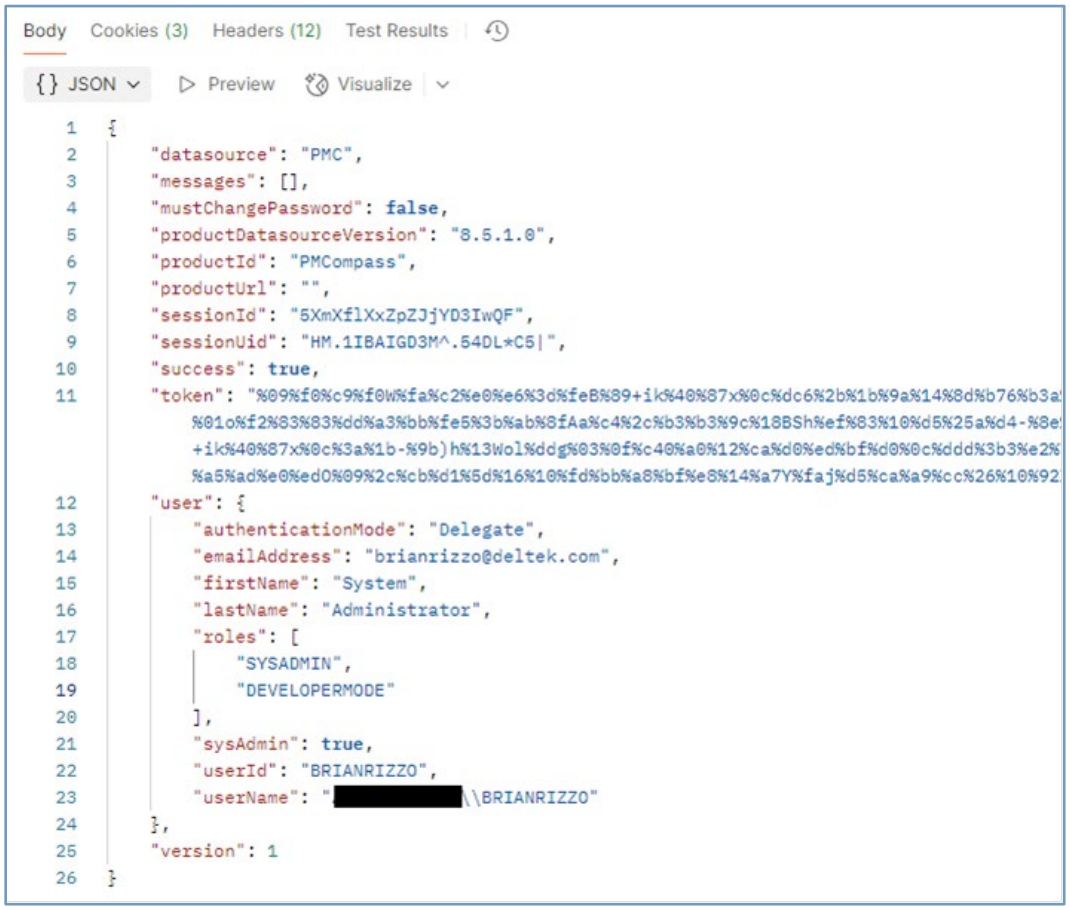
2. Click the Authorization tab.



3. In the **Username** field, enter your domain and domain user name.
4. In the **Password** field, enter your domain password and click the **Send** button.

> **Note:** Do not save your password here, as it will be stored in plain text.

The screen displays as shown below:



Endpoint Testing

This section explains how to use the utility to test the endpoints.

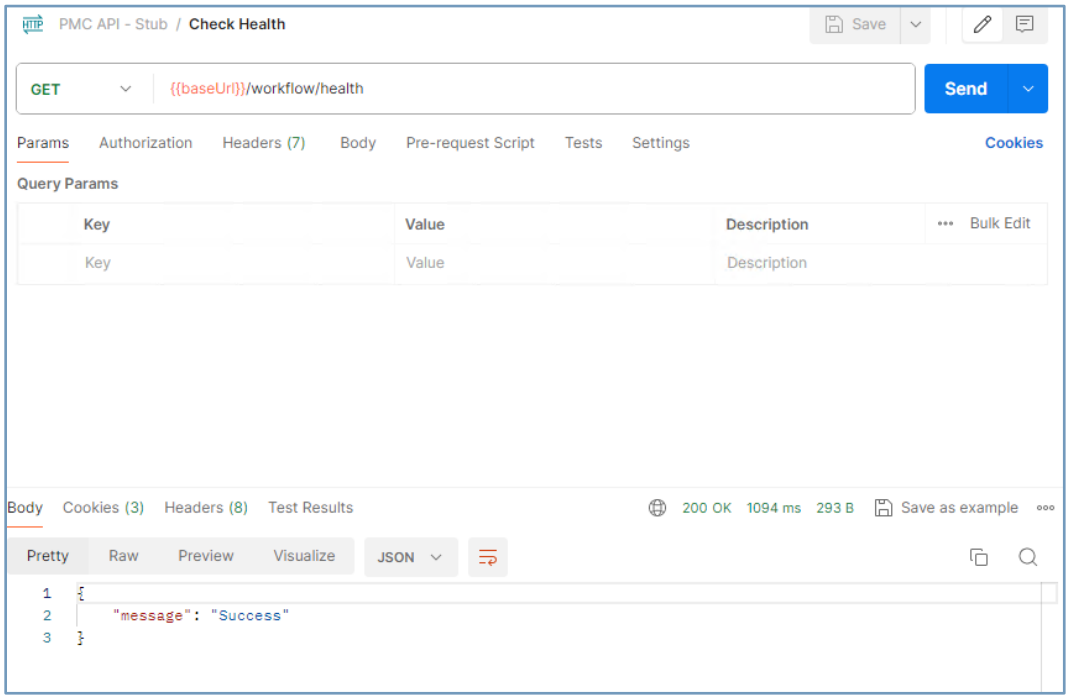
Test the Health Check Endpoint

Test the Health Check endpoint to determine if the API is running and has a connection to the database.

To test the endpoint:

1. In the left pane, click **Check Health**.
2. Click the **Send** button.

The screen displays as shown below:



Test the Import Progress Endpoint

The Import Progress endpoint creates a new entry for cost progress, schedule progress, or both. The collection files contain an example for each scenario.

To test the endpoint:

1. In the left pane, click **Import Progress**.
2. In the right pane, click the Body tab and edit the content or leave it unchanged.

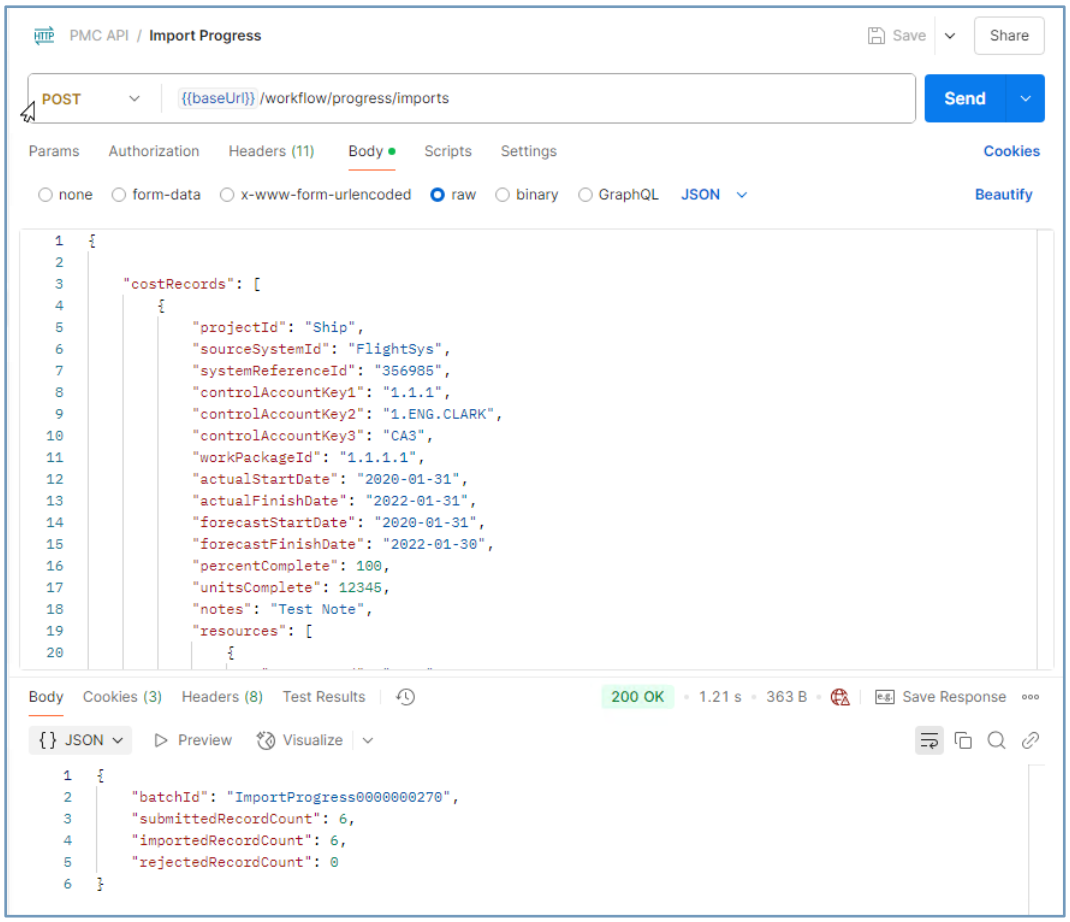
> **Note:** If you leave the content unchanged, the data validation will fail when creating progress entries, as this is just test data.

3. Click the **Send** button.

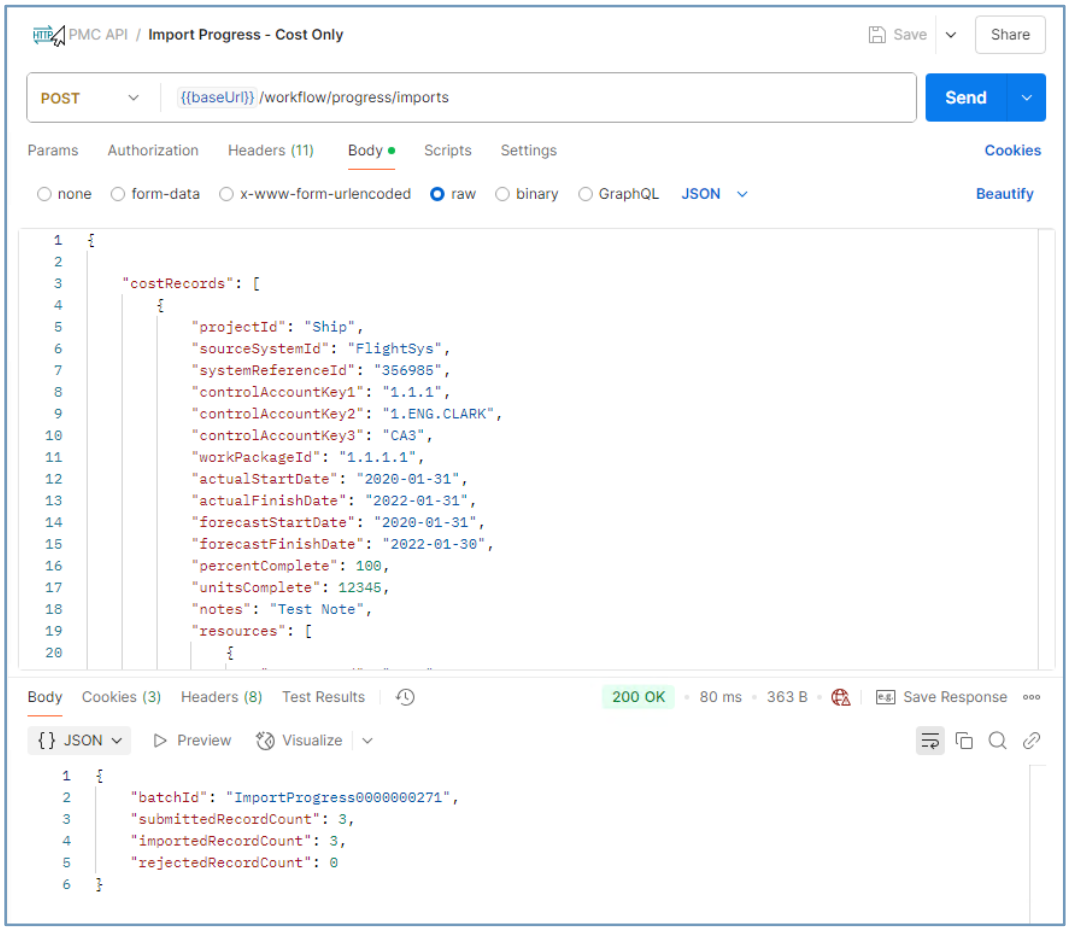
> **Important:** Take note of the returned **batchId** from the response, as it will be used to check the status of Import Progress.

The screen for each scenario displays as shown below:

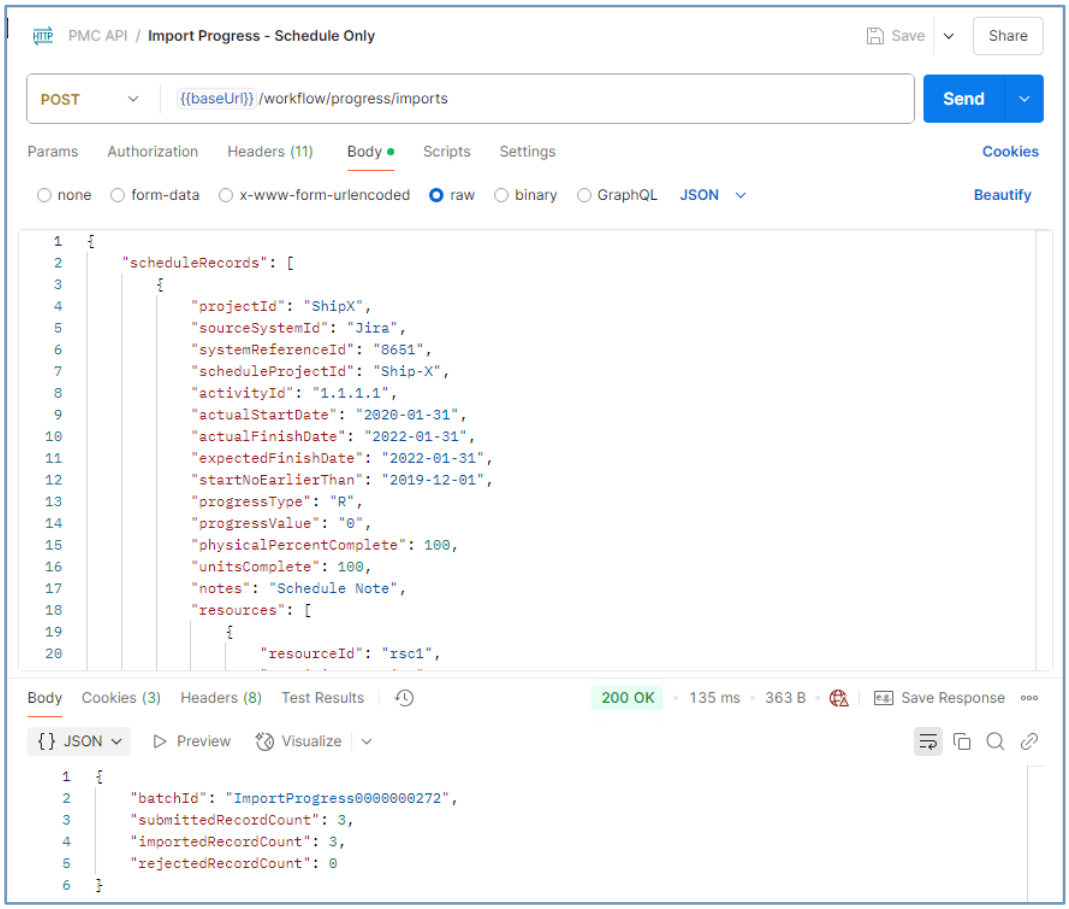
Import Progress – Both Cost and Schedule



Import Progress – Cost Only



Import Progress – Schedule Only



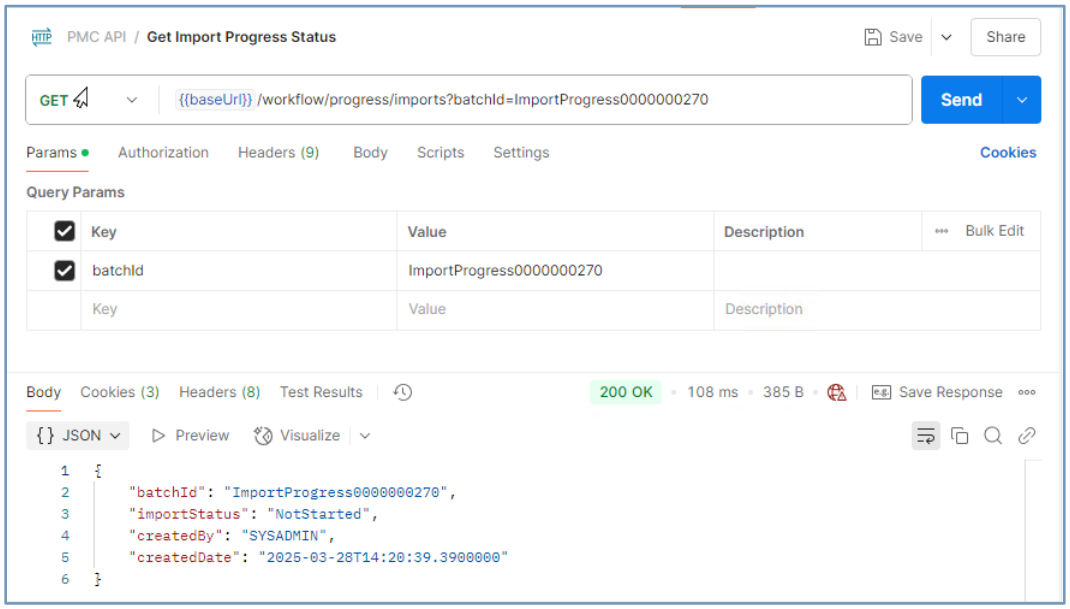
Test the Import Progress Status Endpoint

The Import Progress Status endpoint is used to check the status of Import Progress.

To test the endpoint:

1. In the left pane, click **Get Import Progress Status**.
2. In the right pane, click the Params tab and replace the **batchId** value with the **batchId** value obtained when you tested the Import Progress endpoint.
3. Click the **Send** button.

The screen displays as shown below:



Pre-Validation Errors

This section covers testing pre-validation errors, which occur when the API returns JSON or data issues that cause the service to reject the data.

> **Attention:** For more information on the pre-validation errors, see **API-PreValidationMatrix.xlsx**, which is included with the API installation. For more information on the location of this file, see "API Reference Files" in this guide.

Pre-validation errors are confined to a few specific checks, including:

- **Malformed JSON**: This check ensures that the JSON file is correctly formatted and does adhere to JSON syntax rules.
- **Missing required field**: This check ensures that if a field is required, data is present in the submitted data.
- **Minimum and maximum length constraints**: This check ensures that string values adhere to the specified minimum and maximum lengths.
- **Decimal scale and precision requirements**: This check ensures that decimal numeric values meet the specified scale and precision requirements.
- **Date format validation**: This check ensures that the date is correctly formatted to be translated into a valid date (expected format: yyyy-mm-dd). Date values should be provided and must be valid, an empty string, or null. If a date is not provided, it will be treated as NULL. An empty string or NULL date instructs PM Compass to remove a date value.

Negative Tests—API Validations

This section provides various tests that demonstrate the appearance and structure of JSON files with validation errors across different scenarios.

Note: Refer to the screenshot at the beginning of this appendix to see how these negative tests are placed in the sample Postman collection.

Run the Negative Tests

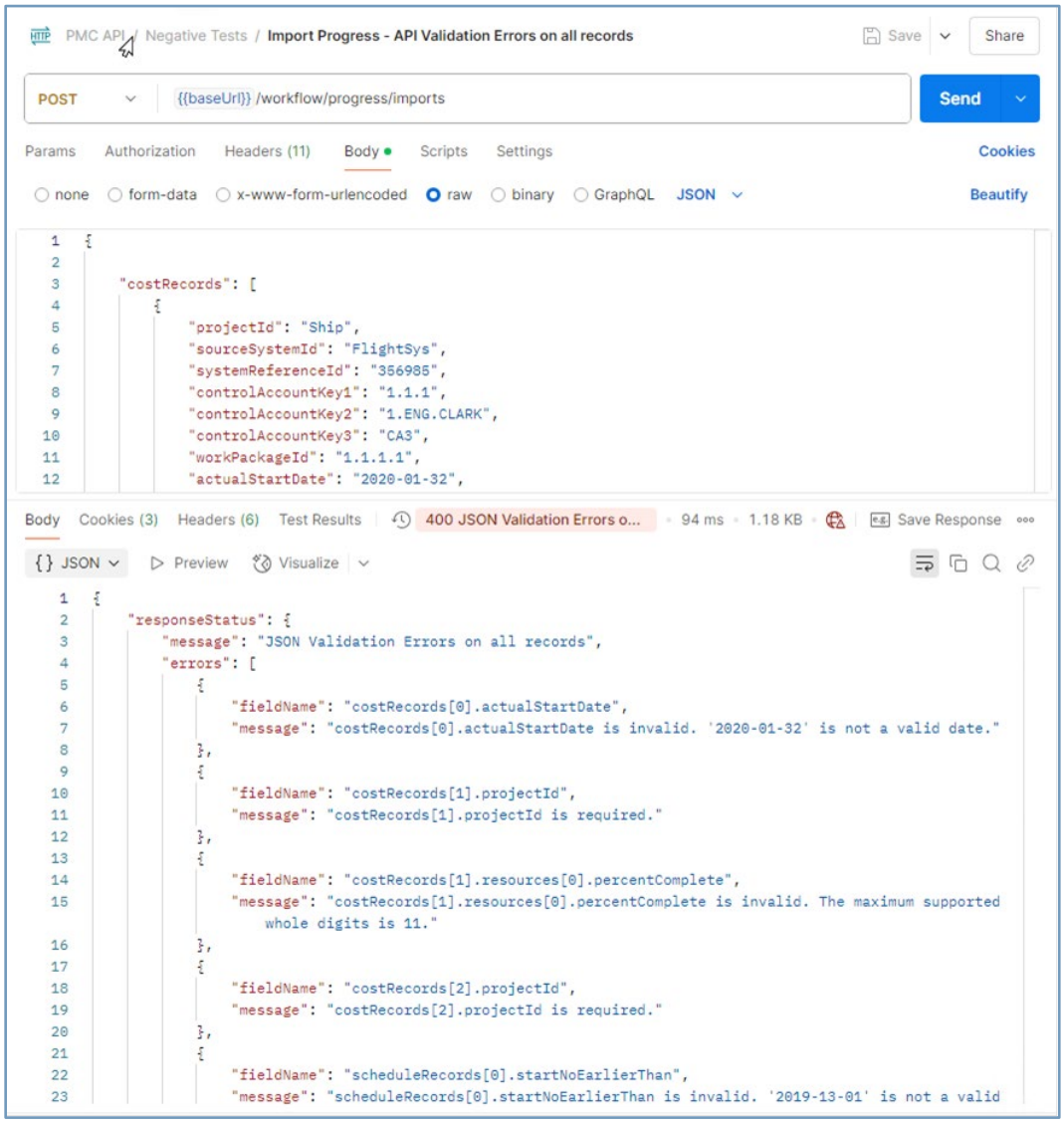
Follow this procedure to run the negative tests that are included in the collection.

To run the negative tests:

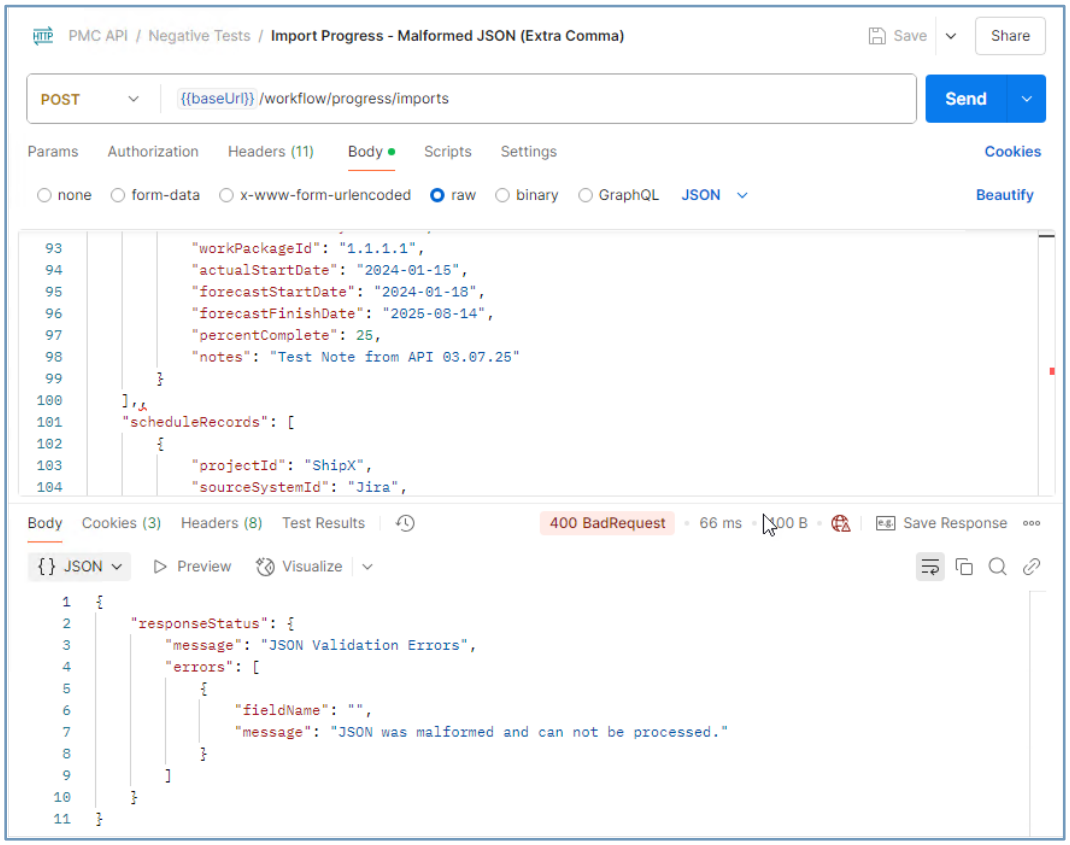
1. In the left pane, expand **Negative Tests** and click the test that you want to view.
   - **API Validation Errors on all records**: This test contains validation errors on all records in the JSON file.
   - **Import Progress - Malformed JSON (Extra Comma)**: This test contains an extra comma in the JSON file.
   - **Import Progress - Malformed JSON (Missing bracket)**: This test is missing a { bracket in the JSON file.
   - **Import Progress - Malformed JSON (Duplicate Property Name)**: This test contains two properties named **projectId** on the same record in the JSON file.
   - **Import Progress - Malformed JSON (Missing Comma)**: This test is missing a comma in the JSON file.
   - **Import Progress - No Request Body**: This test contains no data in the request body, with empty cost records and no schedule records.
2. In the right pane, click the Body tab.
3. Click the **Send** button.

   The screen for each test is displayed as shown below:

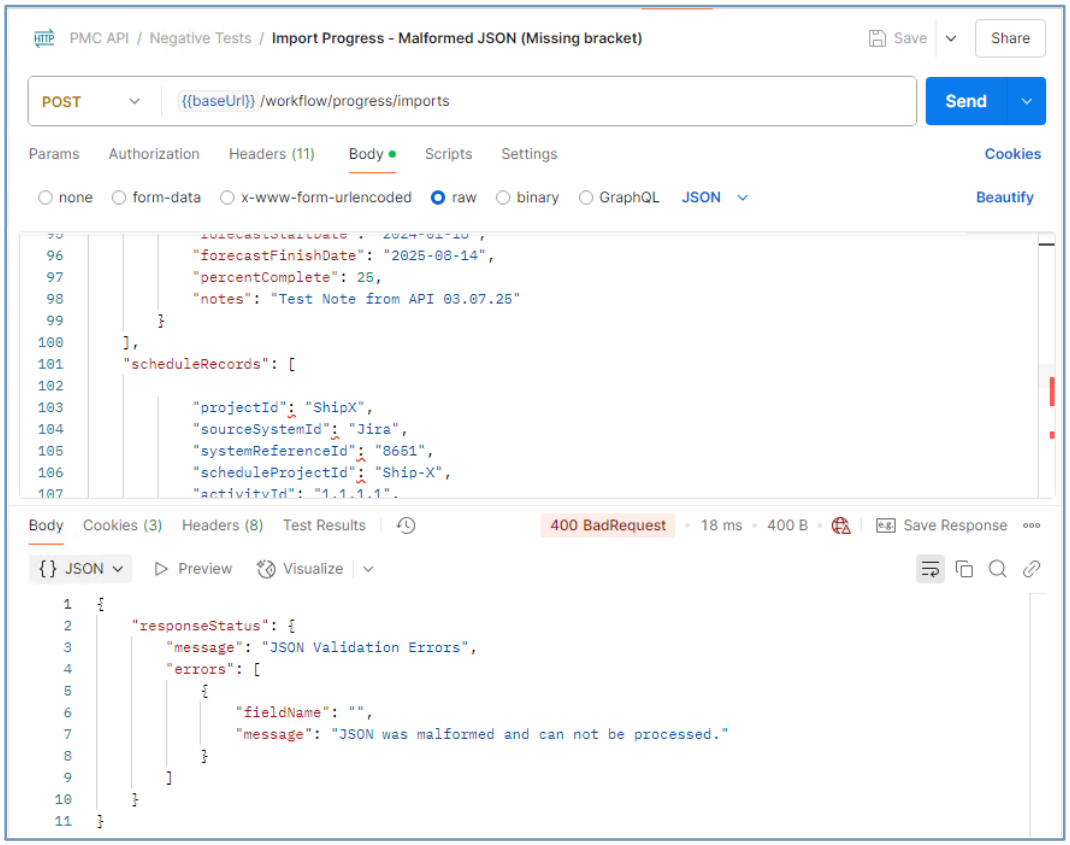
Import Progress - API Validation Errors on all records



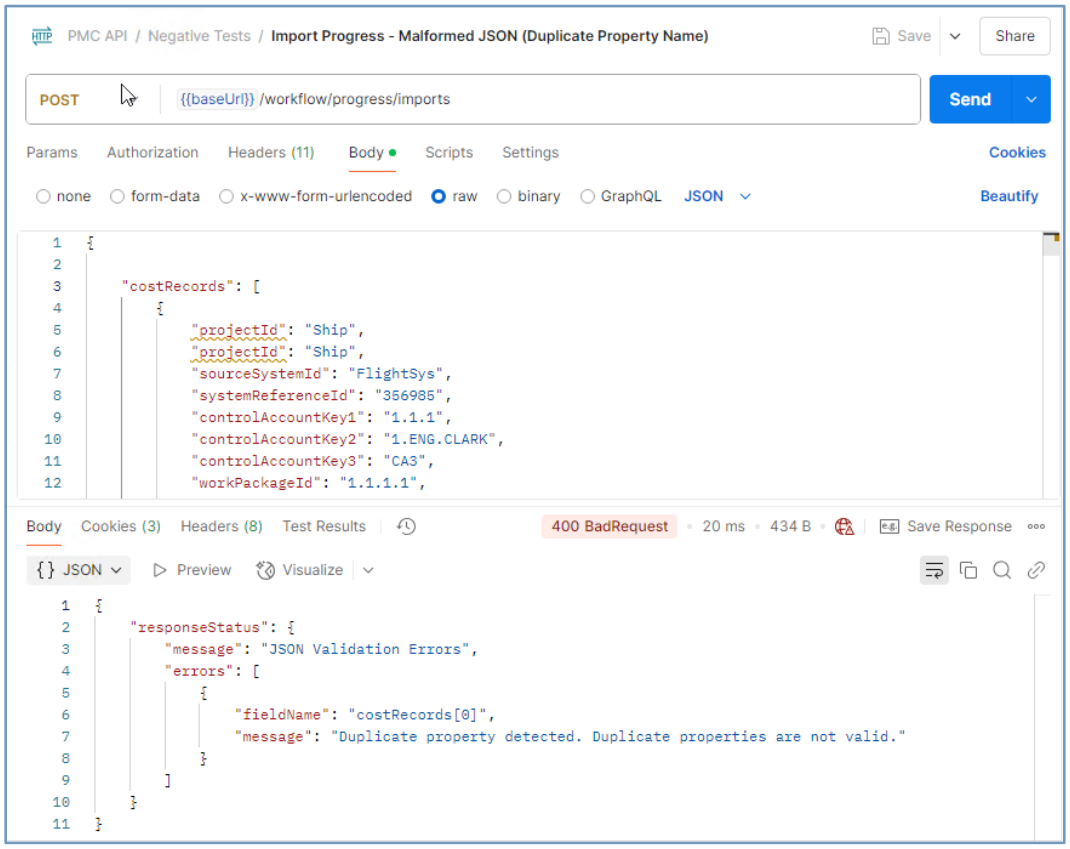
Import Progress - Malformed JSON (Extra Comma)



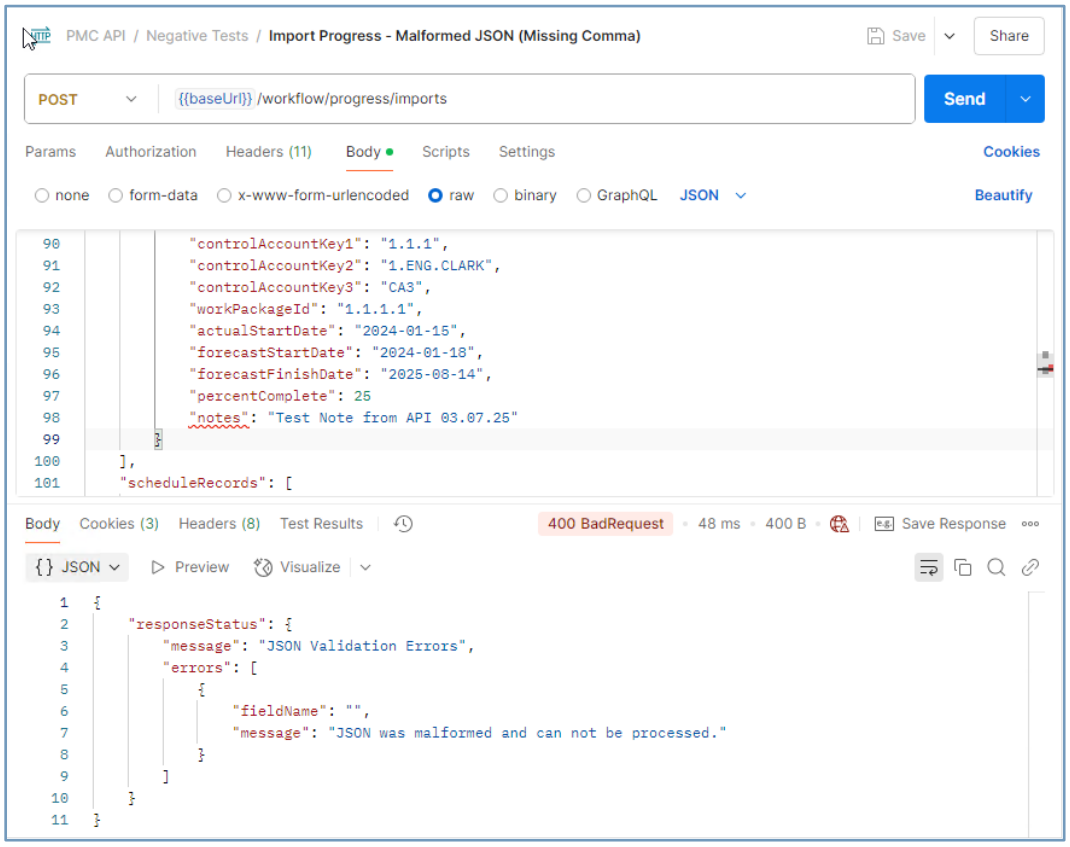
Import Progress - Malformed JSON (Missing bracket)



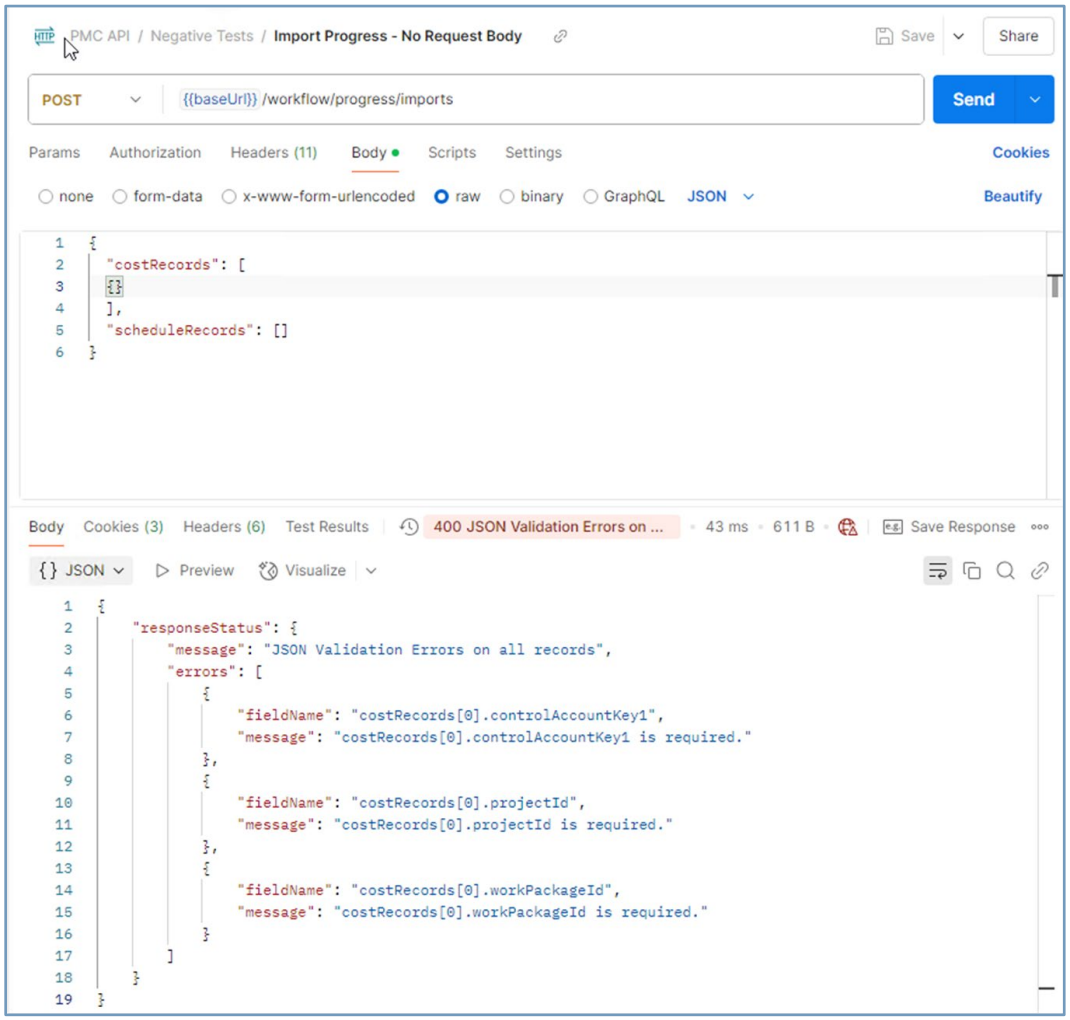
Import Progress - Malformed JSON (Duplicate Property Name)



Import Progress - Malformed JSON (Missing Comma)



Import Progress - No Request Body



Appendix C: Configuring External API Endpoints

As a PM Compass system administrator, you can use the Custom Menu feature to create custom menu items for multiple external endpoints, which you can then execute from the **Navigation** menu within PM Compass.

Important: This feature is not designed to call the PM Compass API directly from PM Compass.

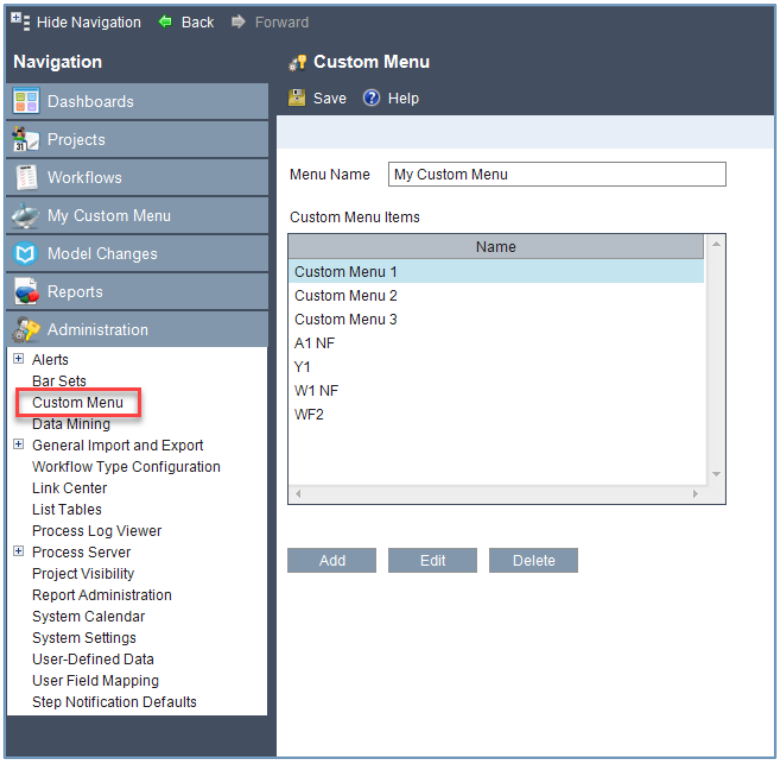
Attention: For more information on this feature, see “Custom Menu Overview” in the Deltek PM Compass Help System under **Administration**.

Use the Custom Menu form to:

- Create custom menu items for multiple external endpoints.
- Add the fields you want to send through the endpoint.
- Configure the parameters required to implement Open Authorization (OAuth) for the endpoint.

Custom Menu Form

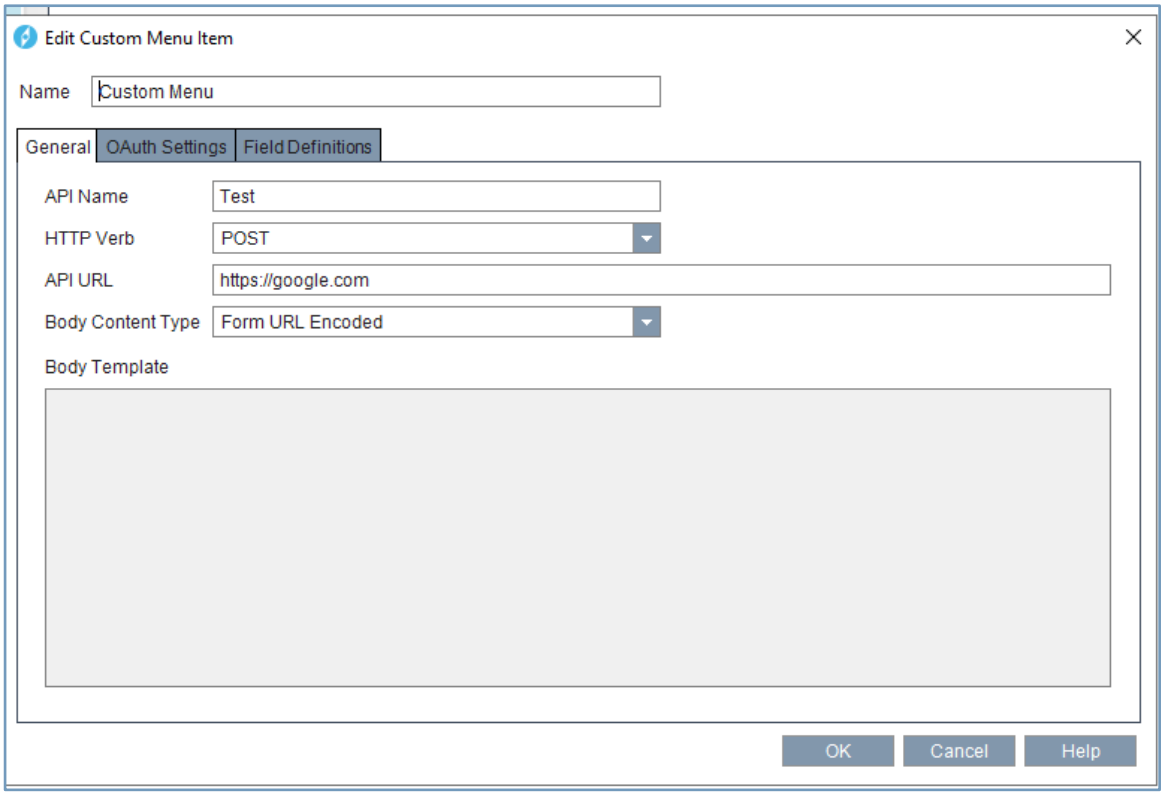
To display the Custom Menu form, click **Administration » Custom Menu** on the Navigation menu.



Custom Menu Form

On the Custom Menu form, enter a custom menu name in the **Menu Name** field and click the **Add** button. If you want to edit an existing custom menu item, select an item in the Custom Menu Items grid and click the **Edit** button.

In the Custom Menu Item dialog box, click each tab and enter or specify the values in the appropriate fields.

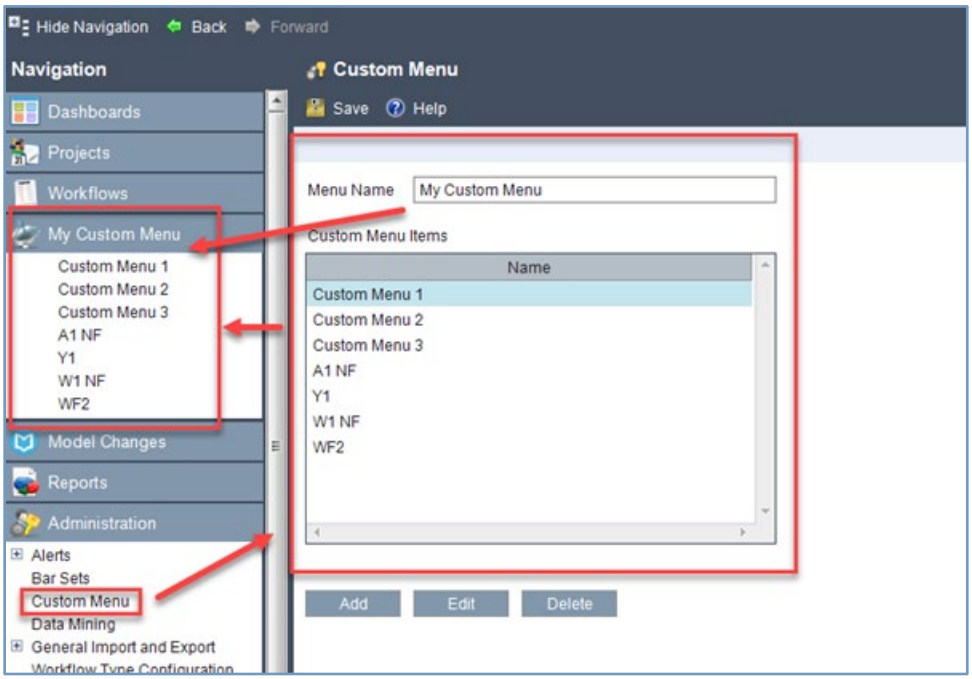


Custom Menu Item Dialog Box

Attention: For more information on each tab and its fields, see “Custom Menu Item Dialog Box” in the Deltek PM Compass Help System under **Administration**.

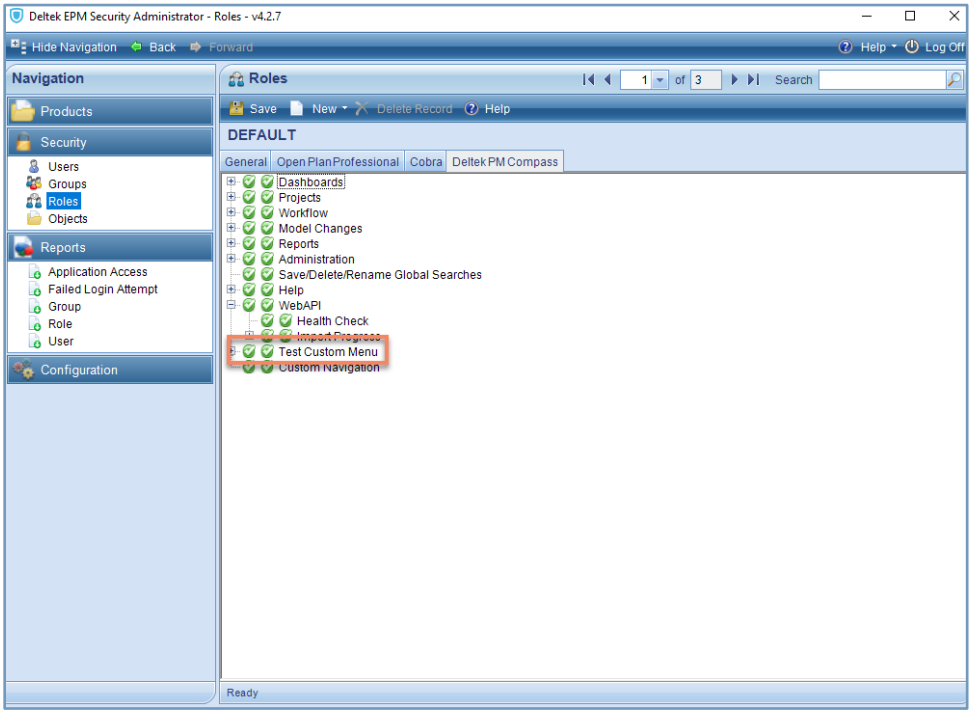
Custom Menu Items

The custom menu items created by the PM Compass system administrators using the Custom Menu feature are then grouped and displayed on the **Navigation** menu after **Workflows**.

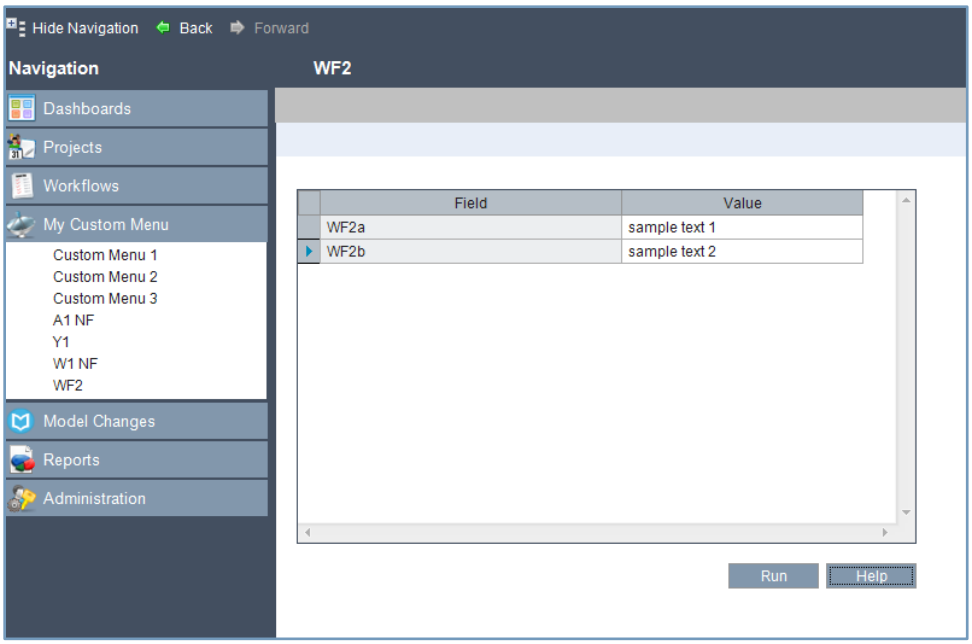


Attention: For more information, see “Custom Menu” in the Deltek PM Compass Help System under **Custom Menu**.

The ability to view and execute a custom menu item depends on your user role. To make a custom menu item available to specific users, grant them access in EPM SA. Custom menu items can be configured on the Roles form under the Deltek PM Compass tab categories.



When you click a custom menu item in the list, the Field and Value grid displays. Use this grid to specify values for the API fields and execute the API call. The grid information dynamically updates based on the API fields defined on the Field Definitions tab of the Custom Menu Item dialog box. Click the **Run** button to connect and execute the external endpoint as defined on the General tab of the Custom Menu Item dialog box.



Field and Value Grid of a Custom Menu Item

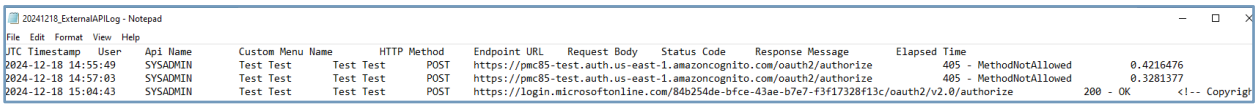
External API Logging

When you click the **Run** button to connect and execute the external endpoint, the call will be logged in a text file and will include detailed log information.

The information includes:

- Date and timestamp
- User name
- API name
- Custom menu name
- HTTP verb
- Endpoint URL
- Request body
- HTTP status code (response code)
- Response body
- Elapsed time

The log file is created inside the **API** folder, which is located in the same directory specified in the **Integration Process Logs** field on the File Folders tab of the System Settings form. The log file follows the following format: **yyyymmdd_ExternalAPILog.log**. A single log file is generated for all external API executions on the same day, regardless of the user.



20241218_ExternalAPILog - Notepad

File Edit Format View Help

JTC Timestamp	User	Api Name	Custom Menu Name	HTTP Method	Endpoint URL	Request Body	Status Code	Response Message	Elapsed Time
2024-12-18 14:55:49	SYSADMIN	Test Test	Test Test	POST	https://pmc85-test.auth.us-east-1.amazoncognito.com/oauth2/authorize		405	MethodNotAllowed	0.4216476
2024-12-18 14:57:03	SYSADMIN	Test Test	Test Test	POST	https://pmc85-test.auth.us-east-1.amazoncognito.com/oauth2/authorize		405	MethodNotAllowed	0.3281377
2024-12-18 15:04:43	SYSADMIN	Test Test	Test Test	POST	https://login.microsoftonline.com/84b254de-bfce-43ae-b7e7-f3f17328f13c/oauth2/v2.0/authorize		200	OK	<!-- Copyrigh

Sample Log File

Appendix D: If You Need Assistance

If you need assistance installing, implementing, or using PM Compass, Deltek makes a wealth of information and expertise readily available to you.

Customer Services

Deltek has always maintained close relationships with client firms, helping with their problems, listening to their needs, and getting to know their individual business environments. A full range of customer services has grown out of this close contact, including the following:

- Extensive self-support options through the Deltek Support Center
- Phone and email support from Deltek Customer Success analysts
- Technical services
- Consulting services
- Custom programming
- Classroom, on-site, and web-based training

Attention: Find out more about these and other services from the Deltek Support Center.

Deltek Support Center

The Deltek Support Center is a support website for Deltek customers who purchase an Ongoing Support Plan (OSP).

The following are some of the many options that the Deltek Support Center provides:

- Search for product documentation, such as release notes, install guides, technical information, online help topics, and white papers
- Ask questions, exchange ideas, and share knowledge with other Deltek customers through the Deltek Support Center Community
- Access Cloud-specific documents and forums
- Download the latest versions of your Deltek products
- Search Deltek's knowledge base
- Submit a support case and check on its progress
- Transfer requested files to a Deltek Customer Success analyst
- Subscribe to Deltek communications about your products and services
- Receive alerts of new Deltek releases and hot fixes
- Initiate a Chat to submit a question to a Deltek Customer Success analyst online

Attention: For more information regarding Deltek Support Center, refer to the online help available from the website.

Access Deltek Support Center

To access the Deltek Support Center:

1. Go to https://deltek.custhelp.com.
2. Enter your Deltek Support Center **Username** and **Password**.
3. Click **Login**.

> **Note:** If you forget your username or password, you can click the **Need Help?** button on the login screen for help.

About Deltek

Better software means better projects. Deltek delivers software and information solutions that enable superior levels of project intelligence, management and collaboration. Our industry-focused expertise makes your projects successful and helps you achieve performance that maximizes productivity and revenue. www.deltek.com