Camstar Connection Module

The Camstar Connection Module is a Mendix module developed to help speed up the process of connecting to a Camstar instance from a Mendix application. After a connection is made, an app developer can then use pre-configured Camstar Services to pull data from the Camstar instance. Sample json, mappings, domain, microflows and pages are included in the module and can be wired directly into an existing Mendix Application.

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# Install Steps

1. Start with an existing App or with a Blank App
2. Add the MxModelReflection module, and ExcelImport module to the app via the App Store
3. Import the CamstarModule.mpk

**Note**. The project will display some errors after the CamstarModule is imported… these errors will be fixed in the next step.

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1. Wire the Administration **Account** entity to the CamstarModule **Account\_Avatar** entity.

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The relation name should be **Account\_AccountAvatar**.

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This warning message will popup…. Just click on the **Continue** button.

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**Note**: All the Errors in the project will be resolved once the **Account\_AccountAvatar** relation has been configured…

1. If security has been enabled for your project, verify that the Account entity security is set properly with the addition of the **Account\_AccountAvatar** and **UserMap\_Account** relations.

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1. Three administration menu items need to be wired into the existing app as shown below.

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The two pages and one microflow are located in the **\_UseMe** folder inside the **CamstarModule** moduleof the project.

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1. Add the Certificate for the Camstar Sites…

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**Note**: At this point, the **CamstarModule** module has been successfully installed into your existing application… this would be a good time to commit all the changes into the TeamServer.

# Configuration Steps

1. Run the app locally and view using the Responsive Browser…

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1. Go to the **App Configurations** page.

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**Notes**:

* Notice that the Top Menu Bar and Footer of the page seem a bit off… that is because all the pages that come with the CamstarModule use a custom Layout (Web-TopBar) which uses custom styling.

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* If your Application already has custom styling applied, then simply replace the **Web\_TopBar** Layout on any of the **CamstarModule** module pages with the Layout of choice from your Application.
* If portions of the **CamstarModule** module custom SASS need to be pulled into your application, then those pieces will have to be manually copied from the **UI\_Resources** folder provided with the CamstarModule resource pack.

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* If the Application does not have any custom styling applied and you would like to use the custom styling that comes with the CamstarModule, then simply Import the **Atlas\_UI\_Resources.mpk** into the project... overwriting the original **Atlas\_UI\_Resources** module that exists in the project.

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* All screenshots in the rest of this document were taken after the custom **Atlas\_UI\_Resources.mpk** was imported into the project. If you do not use the custom Atlas\_UI\_Resources.mpk then your screens from this point forward will look different!

1. Click on the **Domain Model Reflection** menu item, then proceed to refresh all the Modules in the Domain Model Reflection page.

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1. Click on the **Excel Importer** menu item and Import in the **Load CamstarService** template.

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1. Go to the **Import files** tab and import the **CamstarService.xls** file that comes with the CamstarModule resource pack.

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**Note**: The imported Camstar Services can be found in the **Administration/MES Configurations/Camstar Services** page…

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The final step of the configuration is to configure the app to a Camstar instance or site that can be accessed via the Cloud.

1. Click on the **Administration/MES Connection Wizard/New +** button to walk through the process of connecting to a Camstar Site.

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1. Enter the Site Name of the Camstar instance you would like to connect to.

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1. Enter in the Site Protocol, Domain, Default User Profile Name and Password.

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1. Add the required Camstar Services you will be using in your app to pull out Camstar data for display inside your application.

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1. Each Service can be tested to make sure the service has been exposed in the Camstar site you are trying to connect to.

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The result of the service call can be seen in the REST Result popup as shown below.

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1. Once the wizard is finished, the configured site shows up in the **Administration/MES Connection Wizard** page of the application.

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Congratulations, you have successfully configured a connection from your application to a Camstar instance.

# Using the sample Camstar Module MES Pages

1. The Camstar Module has a special microflow that can be used to take a user(after logging in) directly to a page where all configured Camstar instances are displayed. It is not necessary to use this microflow as the Default home page, but if that behavior is desired for your application, then simply wire in the **Default Home page** to microflow **ACT\_EnterHome\_Web** for your project’s navigation profile.

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1. Follow this step to utilize some or all of the sample MES pages that pull and show different types of Camstar data in your Mendix application. Wire in the MES Menu & Sub Menu items as shown below.

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The three pages and four microflows are located in the **\_UseMe** folder inside the **CamstarModule** moduleof the project.

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1. After wiring in the sample pages and/or microflows in the MES menu, save and run your application locally. Click on the MES/<xxx> sample menu item you wired in…

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1. For the OEE data, you will have to configure Resource Criteria in your app before actually pulling any data from the configured Camstar instance. Click on the +New button as shown below…

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Fill out the Resource Criteria popup and click on Save…

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**Note**: You will need to know your Camstar data when creating/updating resource criteria for the Camstar instance.

Now you can click on the Load Data button to pull data from Camstar…

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A screenshot of a computer screen

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1. Wire in some of the other sample pages/microflows to see different ways of showing Camstar data in your Mendix application.

# Turning on Security for the Camstar Module

The Camstar Module has been developed using Production level security. An Anonymous user role can also be used with the Camstar Module if that is they type of behavior your application will need.

1. Turn Production Security on with the Anonymous User Role.

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1. Update each user role in the Project Security screens of your Mendix project…

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1. Don’t forget to update the Security for the Account entity as shown below…

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1. Run the app and login as an Administrator…

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A screenshot of a computer screen

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Note: You may need to log in as the demo\_administrator and add a local admin user.

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# Working with the Camstar Module Services

A Camstar Service is configured for each Service/Method combination that has been exposed in the Camstar instance. The configured Camstar Service is used in Microflows that perform CRUD operations on Camstar data via REST calls in the Microflows.

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Camstar Services can be created/modified/tested in the **Administration/MES Configurations/Camstar Services** menu item as shown below.

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When configuring the Camstar Service for use in the application, and Administrator will need to know the following about the specific Camstar Service being called:

1. Service Name
2. Service Method
3. The service request in JSON format
4. Does the UserProfile in JSON format need to be used with the service
5. The default Content-Type which should be **application/json**.
   1. If a different Content-Type is required for the service, then the application will need to be extended to support that specific use case.

**Note**: Before a Camstar Services can be used in a Mendix application, that service will have to be exposed from Camstar. See the section [Exposing a Camstar WCF Service for use in a Mendix Application](#_Exposing_a_Camstar) below for more information on the subject.

Below is a screen shot of the MoveStd service configured to pull Container data from the Camstar instance.

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Once the Camstar Service has been configured in the application, it can be tested to make sure it works. Simply highlight the Camstar Service and click on the **Test** button in the UI.

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Below is a screenshot of testing the configured ContainerRetrieve Camstar Service which uses the MoveStd service and GetEnvironment method of that service.

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## Templates

Once a **Camstar Service** has been configured for a Site Instance and passes testing in the Camstar Services admin page, that service can be copied and specified as a Template. Templates are used by the **MES Connection Wizard** when configuring a connection to a new Site Instance.

Templates can be shared between Mendix Applications by exporting the templates to Excel, and then importing them into another Mendix Application using the Excel Importer.

1. Export only the Camstar Services that are Templates

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1. Import Camstar Services that are Templates by using the Excel Importer

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## Exposing a Camstar WCF Service for use in a Mendix Application

Before a WCF Service can be used in a Mendix Application, that service must be exposed for use as an Endpoint. Please contact Chris Johnson for detailed information on this subject.

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# Camstar Connection Application

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The **Camstar Connection** **Application** is an implementation of the **Camstar Connection Module** and can be used across all Industries that want to show Mendix-Camstar integration use cases. This Application can demonstrate how Mendix can connect to Camstar and display Camstar data.

## Responsive WEB URL on the Mendix Cloud

The Camstar Connection Application is a production deployment and can be accessed via the following URL:

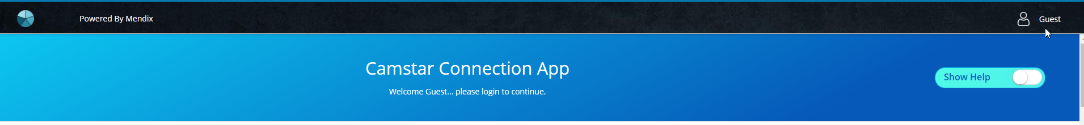
<https://camstarconnectiona100.mendixcloud.com/>

## Logging into the App

The following Mendix users are provided with the Application. The **password** for every user is **Mendix123** and currently can only be change by an Administrator.

|  |  |  |
| --- | --- | --- |
| **User Name** | **Full Name** | **Role** |
|  |  |  |
| Adam | Adam Admin | Administrator |
| Brycen | Brycen Spencer | User |
| Jeff | Jeff Spencer | User |
| Luke | Luke Seiler | User |
| Chris | Chris Johnson | User |
| Rob | Rob Myers | User |
| Peter | Peter De Moerloose | User |
|  |  |  |

From the Application’s home page, simply click on the Guest icon in the upper right corner of the UI to initiate the login process for the App.



Enter a valid Username and Password, and click on the **Sign in** button…

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