

Grafana Widget

Estimated time to read: 6 minutes

This document will guide you through the required configurations and set up for the integration of a **Grafana** dashboard into a UI Page with the **Grafana** widget.

Overview

The **Grafana** widget is used within Critical Manufacturing MES but your original **Grafana** dashboard is initially created in a separate external page.

Warning

Given that Grafana is a server that can be deployed within the realm of the current customer environment (in a separate container sharing the same network and environment stack) or in an autonomous installation to be used by multiple environments, a configuration key is required to indicate the proper URL to be used for this specific environment. That key is `/Cmf/Guis/Configuration/Urls/Grafana/` and should hold the value for the current Grafana server location (example: `https://grafanaserver.companydomain.com:443/Grafana`). If the configuration entry is not filled in, the widget will display an error:



Setting Up Grafana

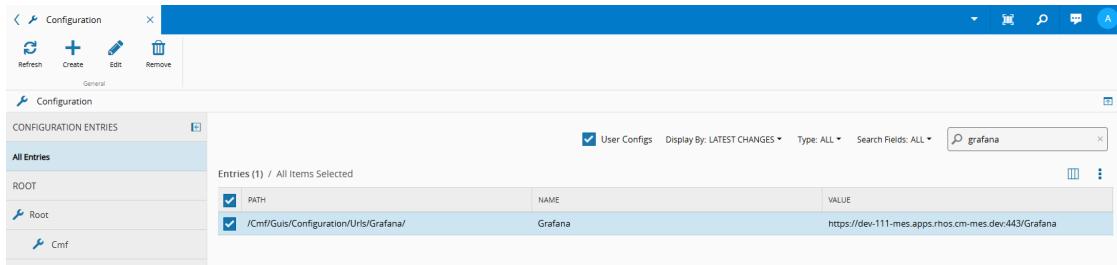
To have a functioning **Grafana** widget and be able to deploy a full Grafana dashboard within Critical Manufacturing MES, you have to follow the steps in the table below:

Step Number	Step	Description
1	Configure Grafana	Configure <code>/Cmf/Guis/Configuration/Urls/Grafana/</code> with the appropriate Value .
2	Create a UI Page	Create a UI Page where you will use the Grafana widget.

Step 1: Configure Grafana

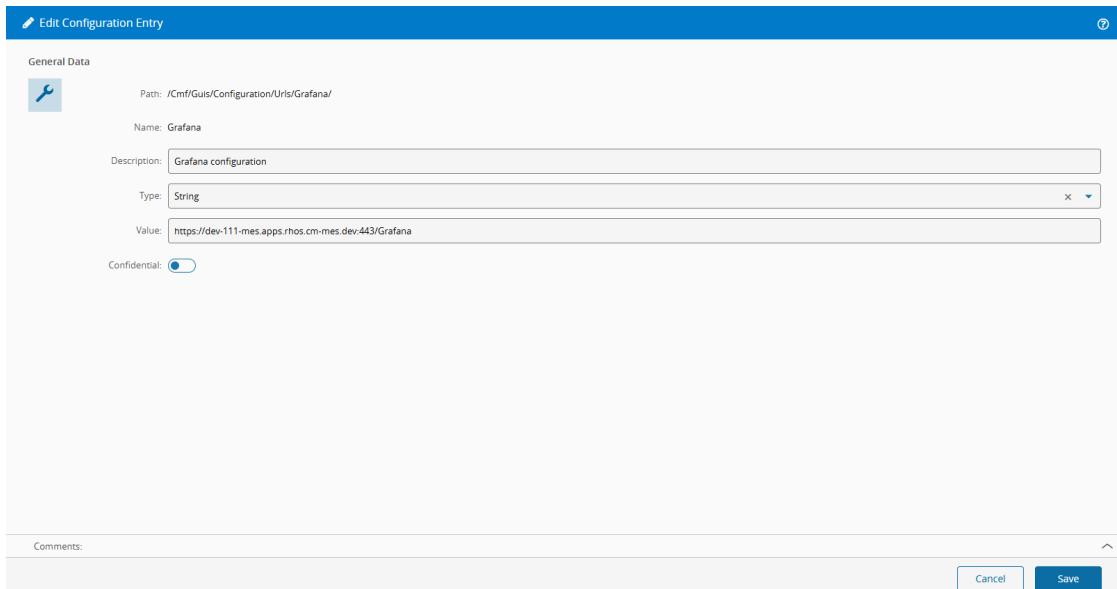
1. Go to the **Administration** menu and select **Configuration**.

2. Search and select the Grafana path to be able to edit it:



The screenshot shows the 'Configuration' interface with the 'Configuration Entries' list. A search bar at the top right contains 'grafana'. A table lists entries under 'All Entries' with 'ROOT' as the parent. One entry is selected: 'Grafana' with path '/Cmf/Guis/Configuration/Urls/Grafana/' and value 'https://dev-111-mes.apps.rhos.cm-mes.dev:443/Grafana'.

3. Select **Edit** on the top ribbon and enter the **Value** for the current Grafana server:

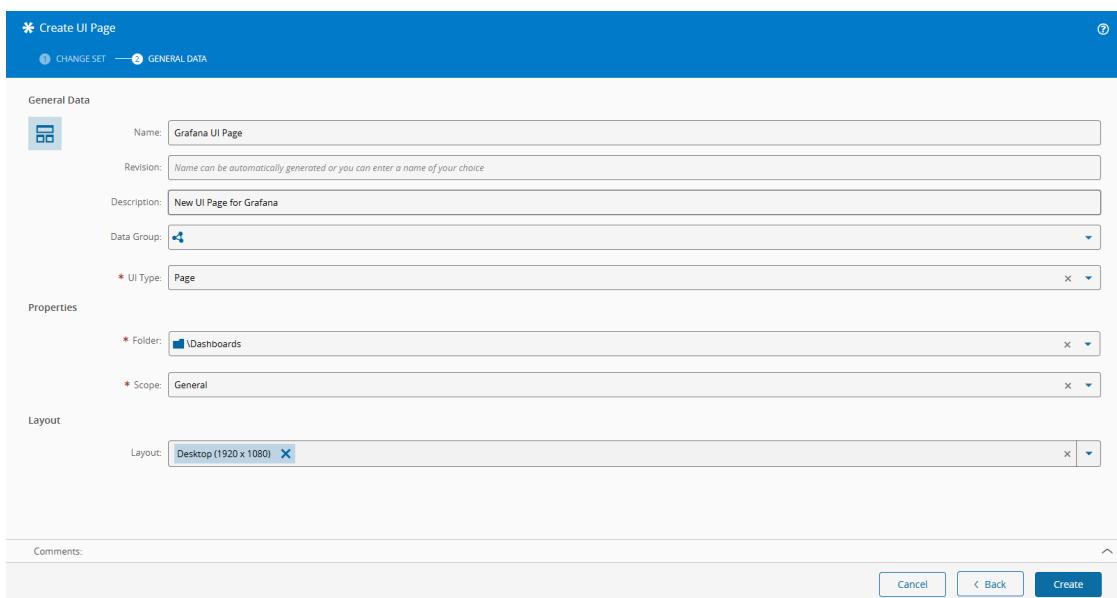


The screenshot shows the 'Edit Configuration Entry' dialog for the 'Grafana' entry. The 'Value' field is updated to 'https://dev-111-mes.apps.rhos.cm-mes.dev:443/Grafana'. The 'Save' button is visible at the bottom right.

4. Select **Save**.

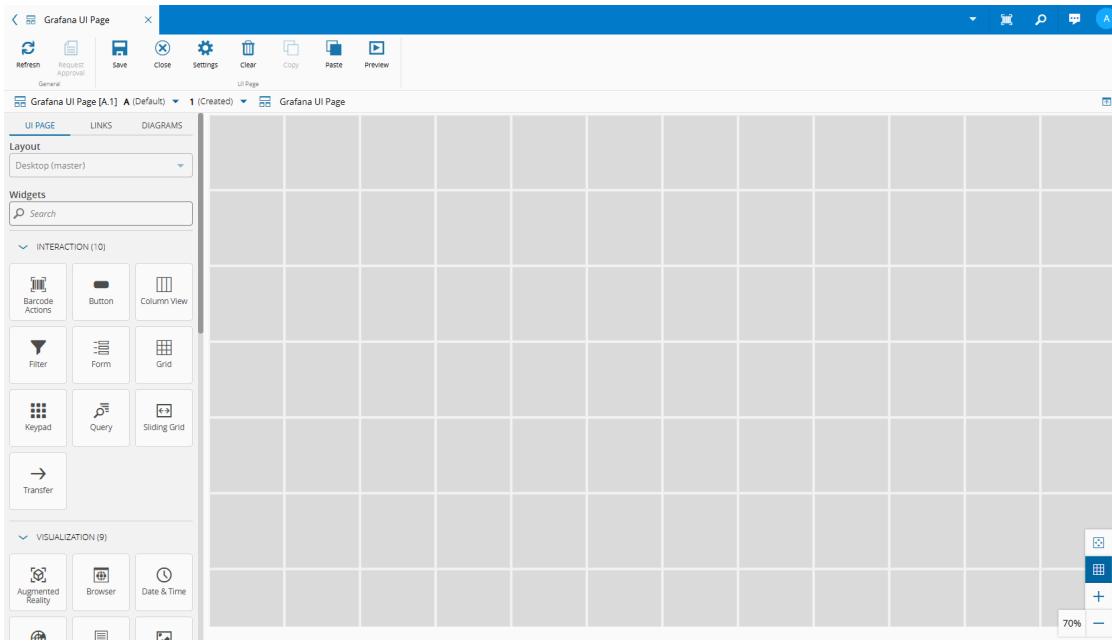
Step 2: Create a UI Page

1. Create your UI Page:



The screenshot shows the 'Create UI Page' dialog. The 'GENERAL DATA' tab is selected. In the 'General Data' section, 'Name' is set to 'Grafana UI Page'. In the 'Properties' section, 'Folder' is set to 'Dashboards' and 'Scope' is set to 'General'. The 'Layout' section shows 'Layout: Desktop (1920 x 1080)'. The 'Save' button is visible at the bottom right.

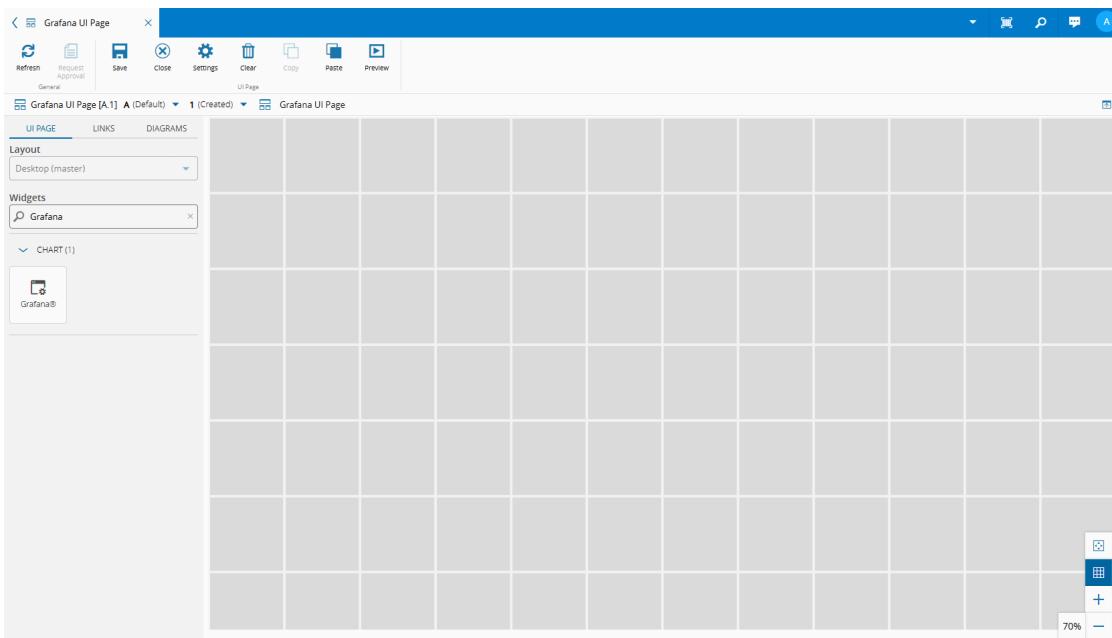
2. Select **Create** and your UI Page will be ready to use:



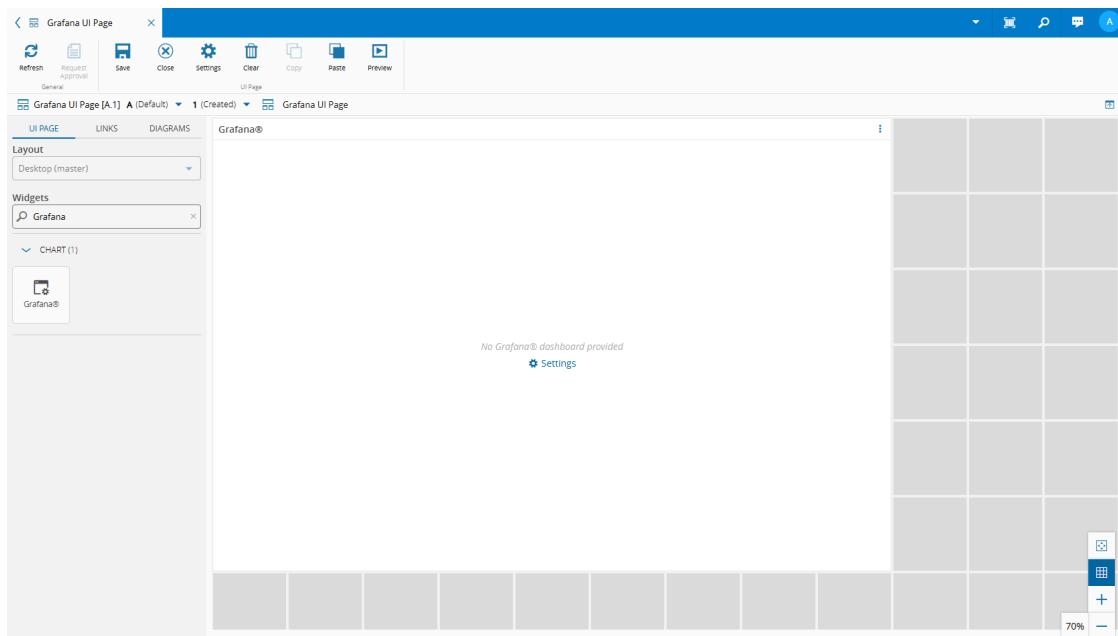
For more information, see [Create UI Page](#).

Configuring the Grafana Widget

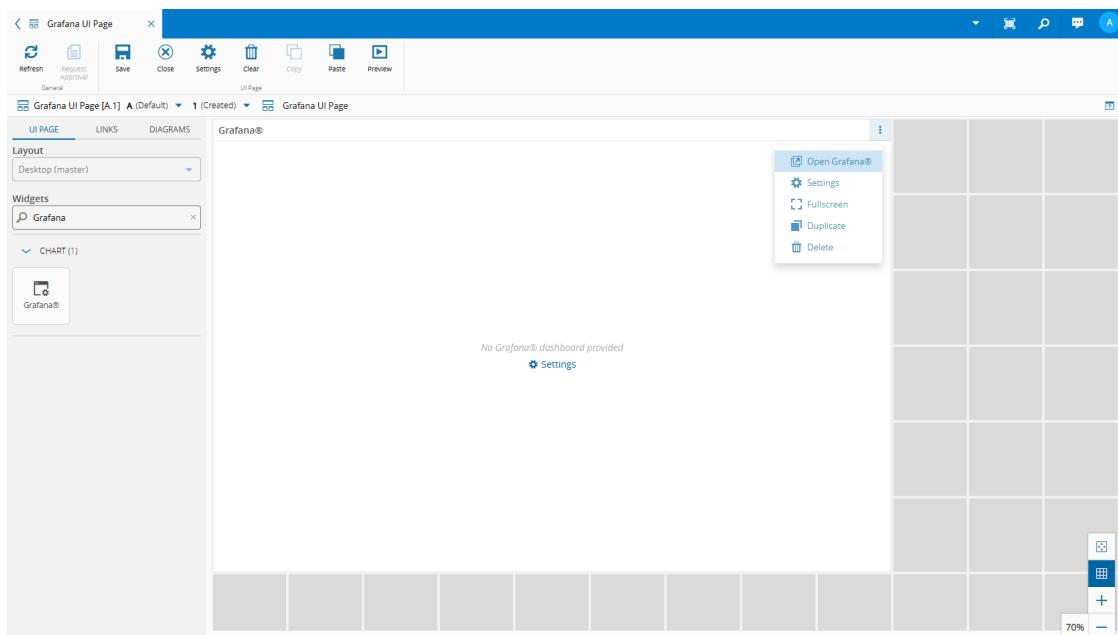
1. In the created UI Page, search for the **Grafana** widget:



2. Drag and drop the **Grafana** widget into the desired place and expand it as needed:



3. If you have not yet created your **Grafana**  dashboard, select the **More** dropdown, and **Open Grafana** to access the **Grafana** platform, where you can create your dashboard that you will use later in this UI Page:



Note

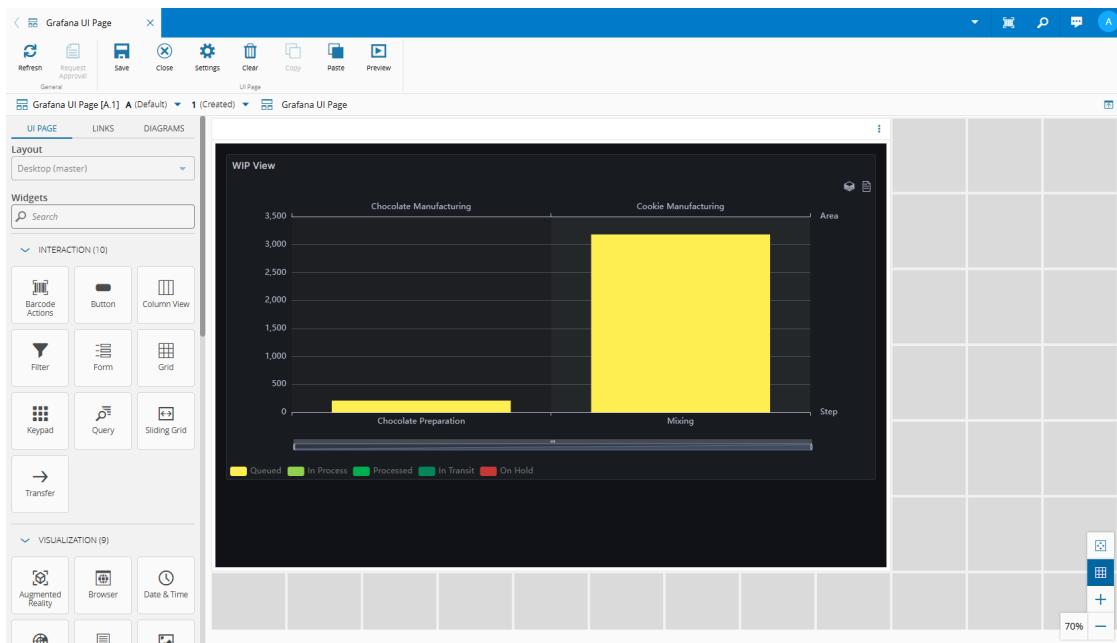
You can access Grafana [Documentation](#)  and other useful links to help you start creating your Grafana dashboard.

4. When your **Grafana** dashboard is created, copy its address.
5. In your UI Page, select **Settings** in the **More** dropdown of the **Grafana** widget.
6. Select the **Setup** tab and paste the complete address of your created **Grafana** dashboard in the **Dashboard URL** field:

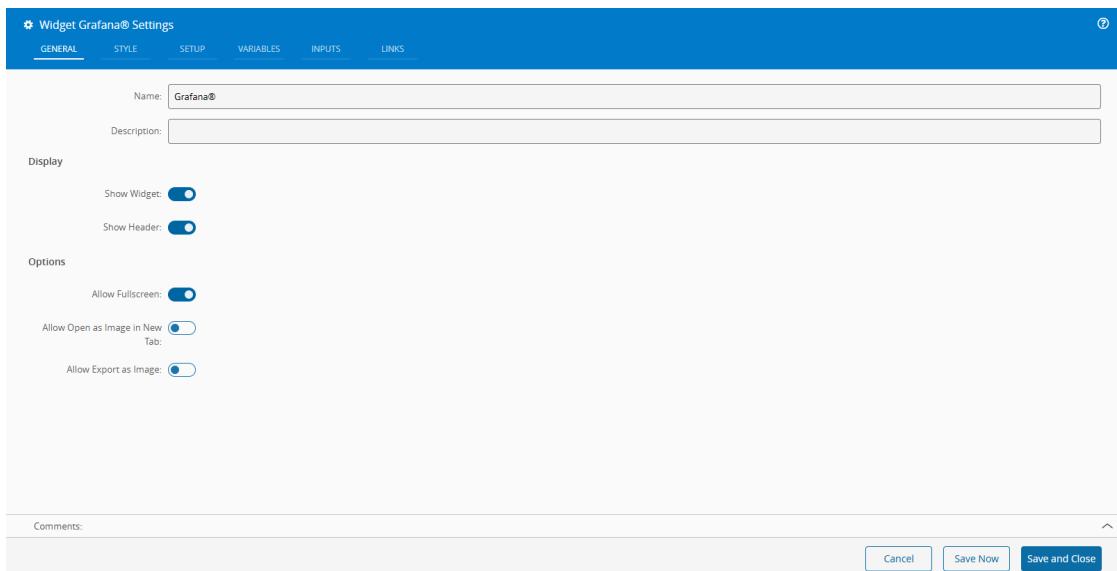
In the **Setup** tab you can also select the Theme (defaults to Standard), set whether to Show Controls (defaults to `true`), and Show Menu (defaults to `false`):

a) Grafana with a light theme and controls bar:

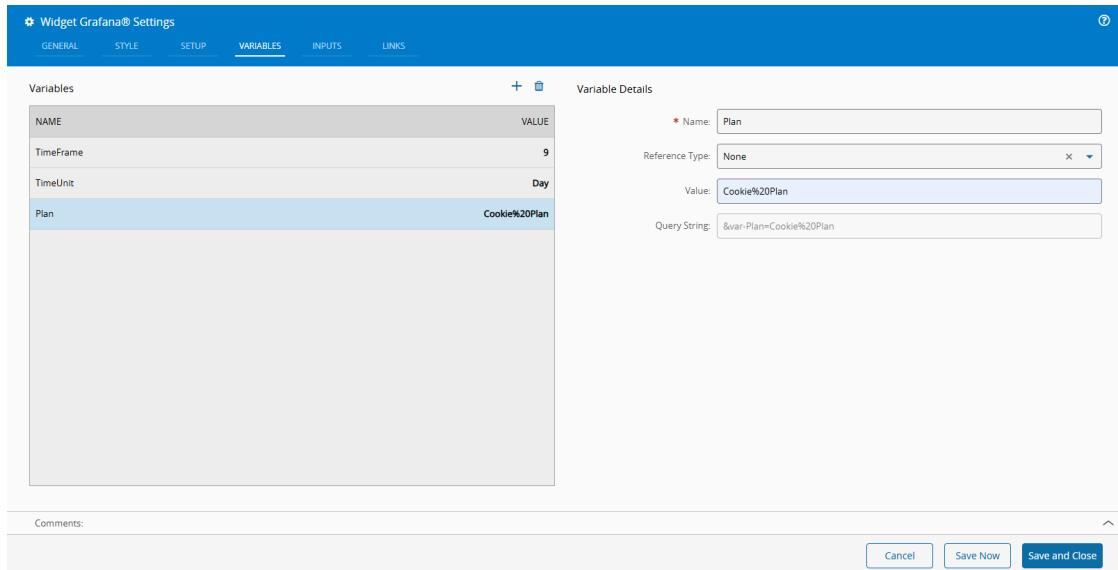
b) Grafana with a dark theme and no controls bar:



7. In the **General** tab, provide a name for the widget (Grafana by default), and configure the other available options as needed:



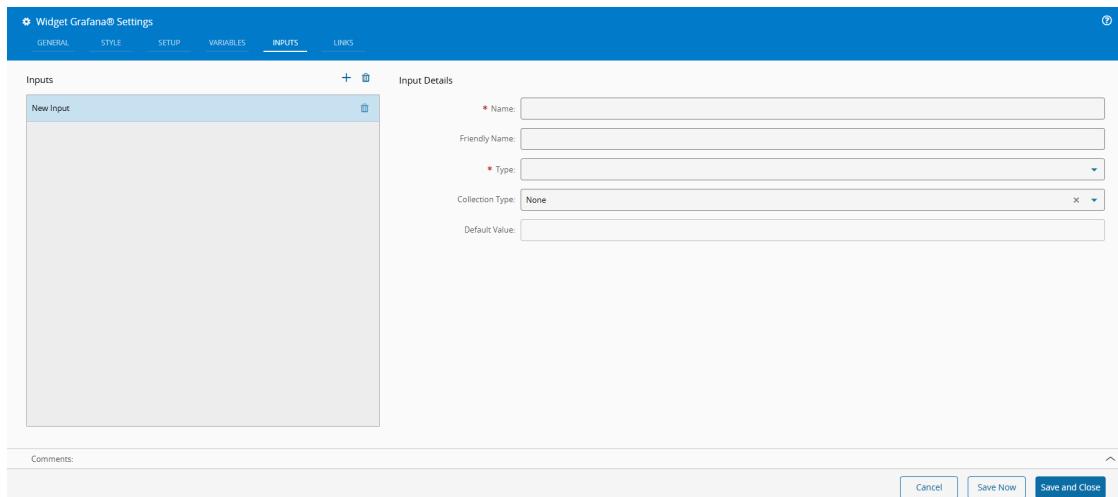
8. In the **Variables** tab you can + or override the variables created in Grafana along with their details:



 **Note**

The Variables you define in the settings are the default ones but you can introduce other settings, like Area or Resource, from the UI Page into Grafana. For this tutorial, we are using a TimeUnit variable.

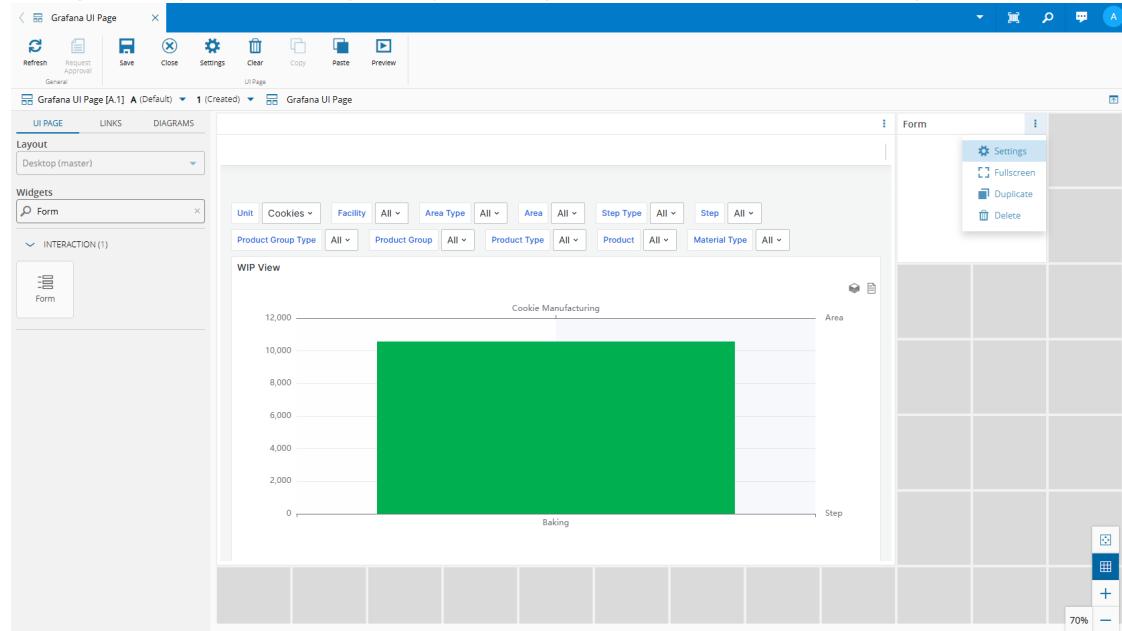
9. In the **Inputs** tab you can **+** as needed, and the **Name** and **Type**, that relate to the input, are mandatory:



10. In the **Links** tab you can add links and make your UI Page more dynamic.

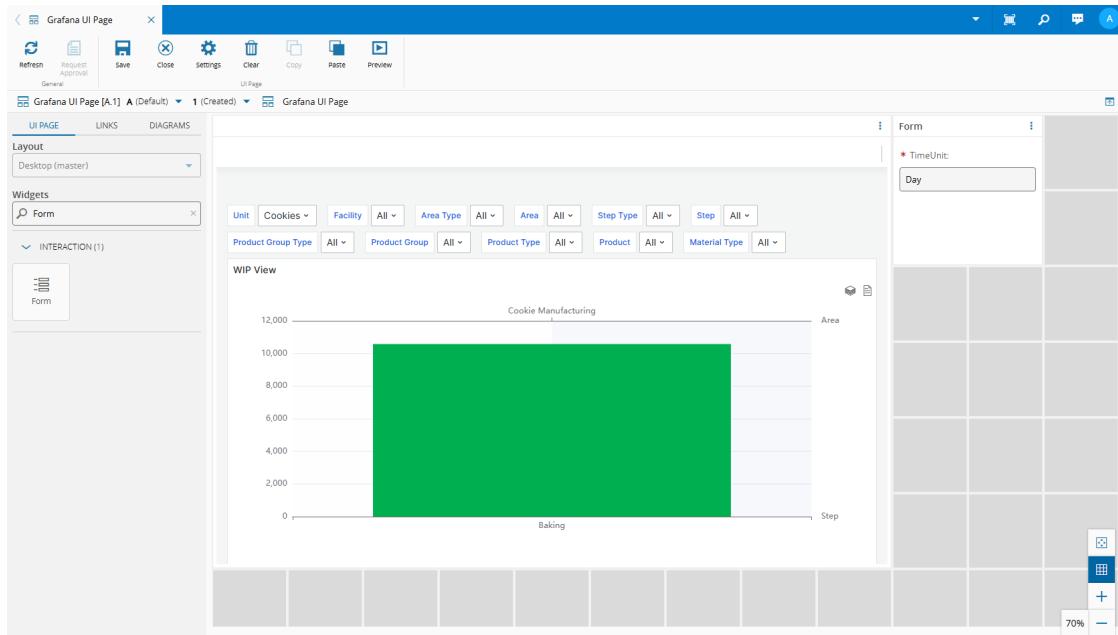
Example with **Form** widget:

a) Drag and drop the **Form** widget into your UI Page dashboard and select its **Settings**:

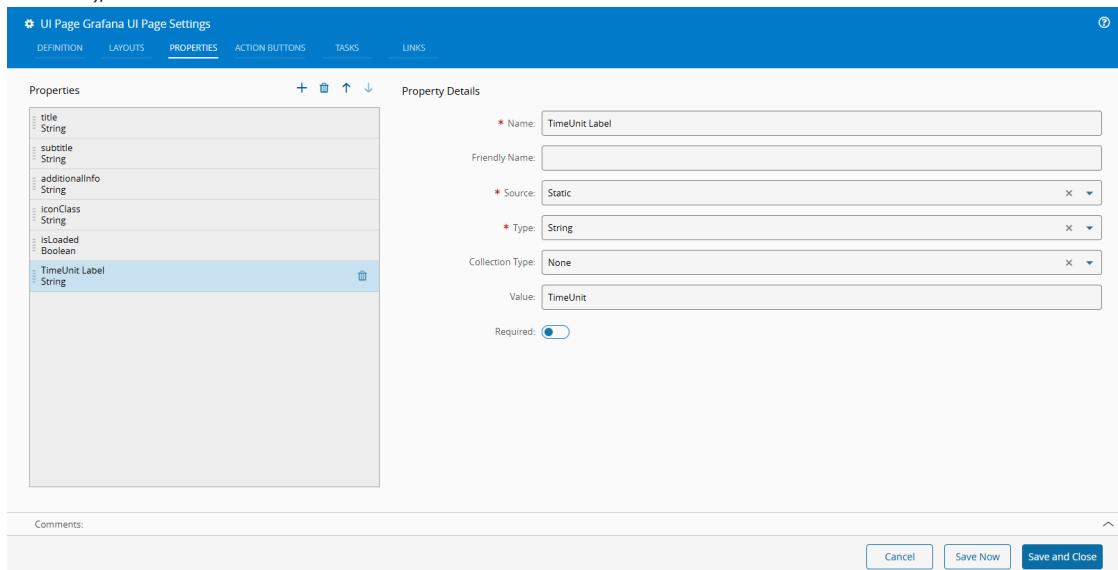


b) Go to the **Fields** tab, select **+** to change the **TimeUnit** variable, which is of the Type **String**, and **Save** and **Close**:

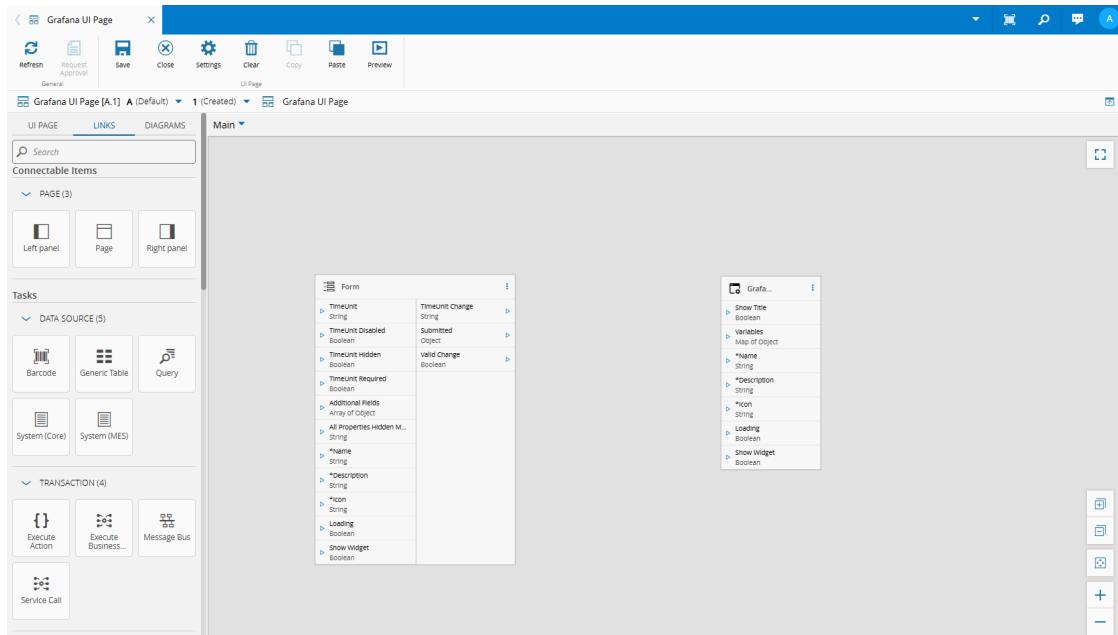
c) In your UI Page dashboard, define a value for the new **TimeUnit**:



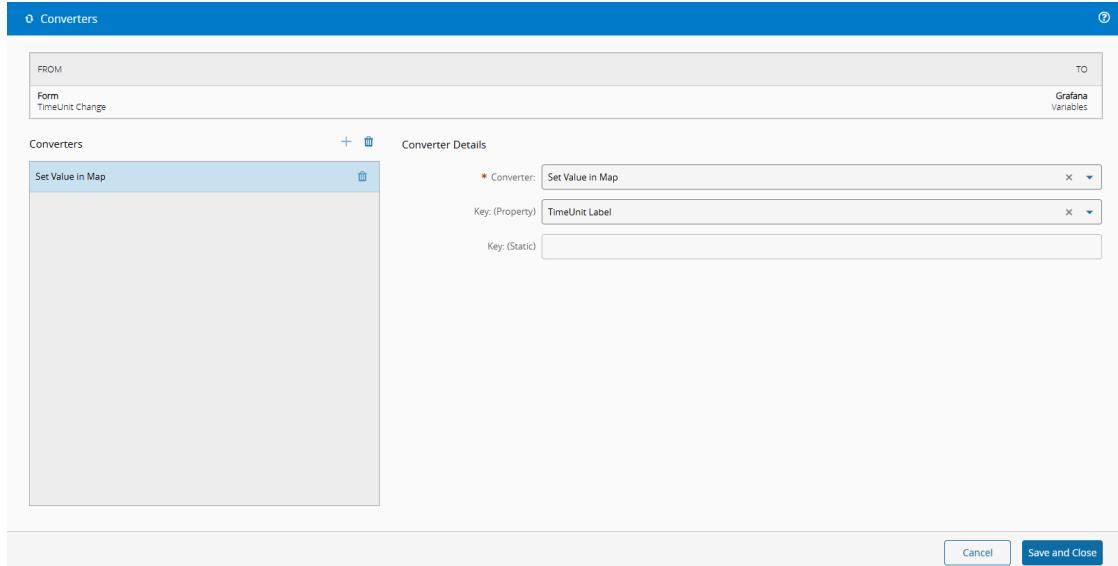
d) On the top ribbon of your UI Page, select **Settings**, then in the **Properties** tab + a new property that will be your TimeUnit label. Give it the appropriate Name, Source, Type, Value (name of the variable in Grafana), and **Save and Close**:



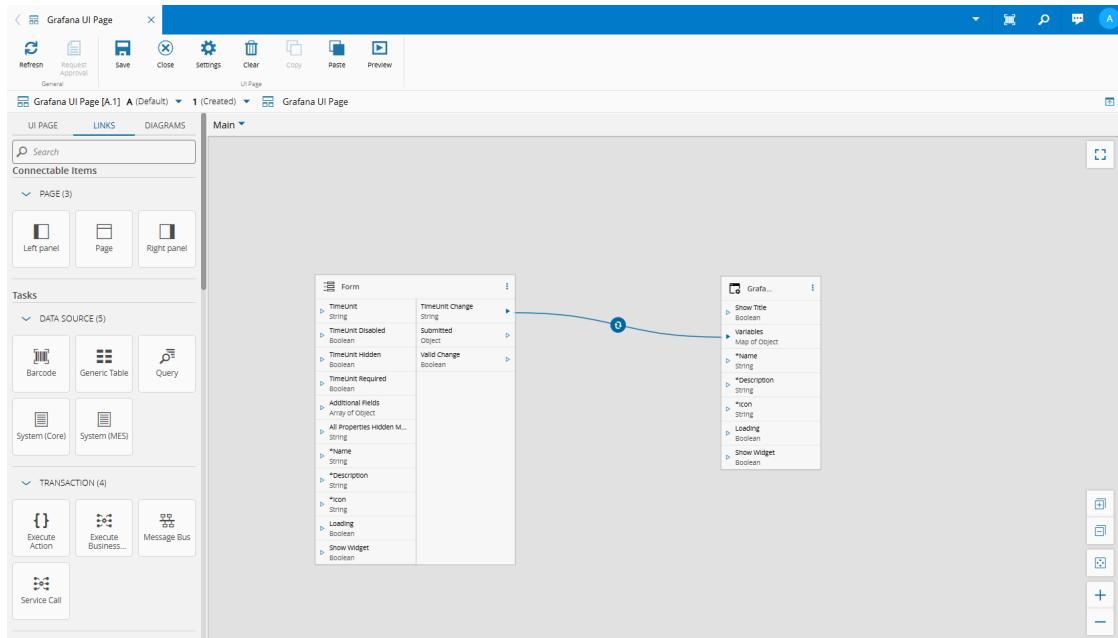
e) In the UI Page, select **Links** and drag and drop the **Forms** and **Grafana** widgets onto your page. It will look like this:



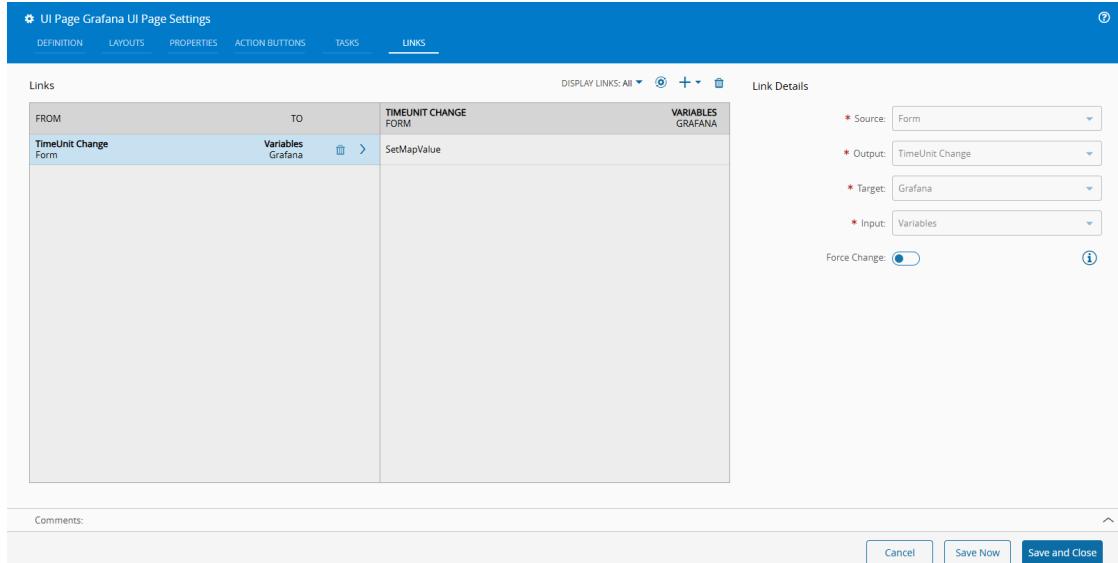
f) Send the result of the TimeUnit Change String to Variables, which is a map, select `Set Value in Map` in the Converter field, and `TimeUnit Label`, created earlier, in the Key: (Property) field:



g) Select **Save and Close**:



h) To check your link is correct, go back to the UI Page, select **Settings** on the top ribbon and access the **Links** tab:



11. **Save and Close** the settings, and the widget will be updated.

For more information, see the System Widgets [Grafana](#) page in the UI Pages menu.

Making it Available

You can create a shortcut for your UI Page by editing the **Scope** to **Entity Type** or **Menu Entry**, and setting the **Pin To Quick Access** option to `true`:

* Create UI Page

CHANGE SET — GENERAL DATA

Description:

Data Group:

Label:

* UI Type:

Properties

* Folder:

* Scope:

* Menu Entry:

Layout

Layout:

Quick Access

Pin To Quick Access:

Comments:

This means that quick access will be visible in the **Dashboards** section of the menu entry for the **Menu Entry** scope, or under **View** for the **Entity Type** scope:

The screenshot shows the Manufacturing menu entry in the Critical Manufacturing interface. The 'Dashboards' section contains a card for 'MenuEntry-01'.

The screenshot shows the Chocolate Manufacturing Area details page. The 'View' section contains a card for 'MenuEntry-01'.

Note

You can only use the UI Page if it is Effective. Therefore, for the quick access to be visible in the Dashboards you must approve the Change Set and the Universal State must be Effective.



MenuEntry-01

New Refresh Edit Lock More

General Actions

MenuEntry-01 [A.1] A (Default) 1 (Effective)

UI Page

DETAILS

Information

Quick Access

DETAILS

PRESETS

ATTACHMENTS

UI Page	Name:	MenuEntry-01	Description:	MenuEntry-01	Folder:	Dashboards	Scope:	Menu Entry	Menu Entry:	Manufacturing	Pin To Quick Access:	✓ Yes	Pin To:	All Users
	Universal State:	Effective	Label:	UI Type:	Page									