

# CDE quick start guide

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Community Dashboard Editor (CDE) helps you easily create and add CTools dashboards. The CDE tool is a graphical dashboard editor which provides access to the dashboard components in Community Dashboard Framework (CDF). This tool uses a grid for the layout which allows you to create your own dashboards without needing a lot of JavaScript or HTML expertise. Before beginning, be sure you have [activated the CDE plugin](#).

## Parent Topic

- [Products](#)

## Child Topics

- [Workflow Overview](#)
- [Plan your dashboard](#)
- [Open CDE](#)
- [Create your first CDE dashboard](#)

## Workflow Overview

Before you start building a dashboard, it is important to define a workflow. These are the typical steps:

1. [Plan your dashboard](#)

Before you start building your dashboard, think about how it will look like and how it will behave.

2. [Open CDE](#)

You can launch the dashboard editor from the Home page in the Pentaho User Console.

3. [Create and save a new dashboard](#)

Enter a name for your dashboard and save it in the solutions folder of your choice.

4. [Create the layout for the dashboard](#)

In the editor, select the Layout perspective and define the dashboard layout according to your design.

5. [Add the data sources](#)

Select the Data Sources perspective and define the data sources which will feed your dashboard.

6. [Add and configure the components](#)

Select the Components perspective and add the components that make up your dashboard: the visual elements, the parameters, and eventually some scripts.

7. [Preview your work](#)

Click on **Preview** regularly to see how your work is progressing.

Repeat steps 4-7 until you are satisfied with your final dashboard. Do not forget to save your work from time to time.

## Parent Topic

- [CDE quick start guide](#)

# Plan your dashboard

Before you start building your dashboard, think about the content and design of your dashboard. Dashboards represent business visualization of data and should therefore be driven by business requirements, not technical aspects.

## Parent Topic

- [CDE quick start guide](#)

## Child Topics

- [Gather requirements](#)
- [Design your dashboard](#)

## Gather requirements

When gathering requirements, consider the following.

- How should data be prioritized in your dashboard? For example, analysts generally prefer to navigate from aggregated data to complex breakdowns.
- How will users navigate your dashboard? Consider the role of dashboard parameters. For example, are your dimensional selectors independent, nested, or categorized?
- What is the look and feel of the dashboard? The dashboard should aim to incorporate the customer's own corporate or department identity and guidelines.

## Parent Topic

- [Plan your dashboard](#)

## Design your dashboard

It is time to grab a piece of paper and sketch your dashboard!

When designing your dashboard, you may have the following considerations regarding layout:

- Main header
- Main content
- Secondary content
- Location of dashboard parameters
- Categorization of information
- Left-to-right and top-to-bottom layouts

## Parent Topic

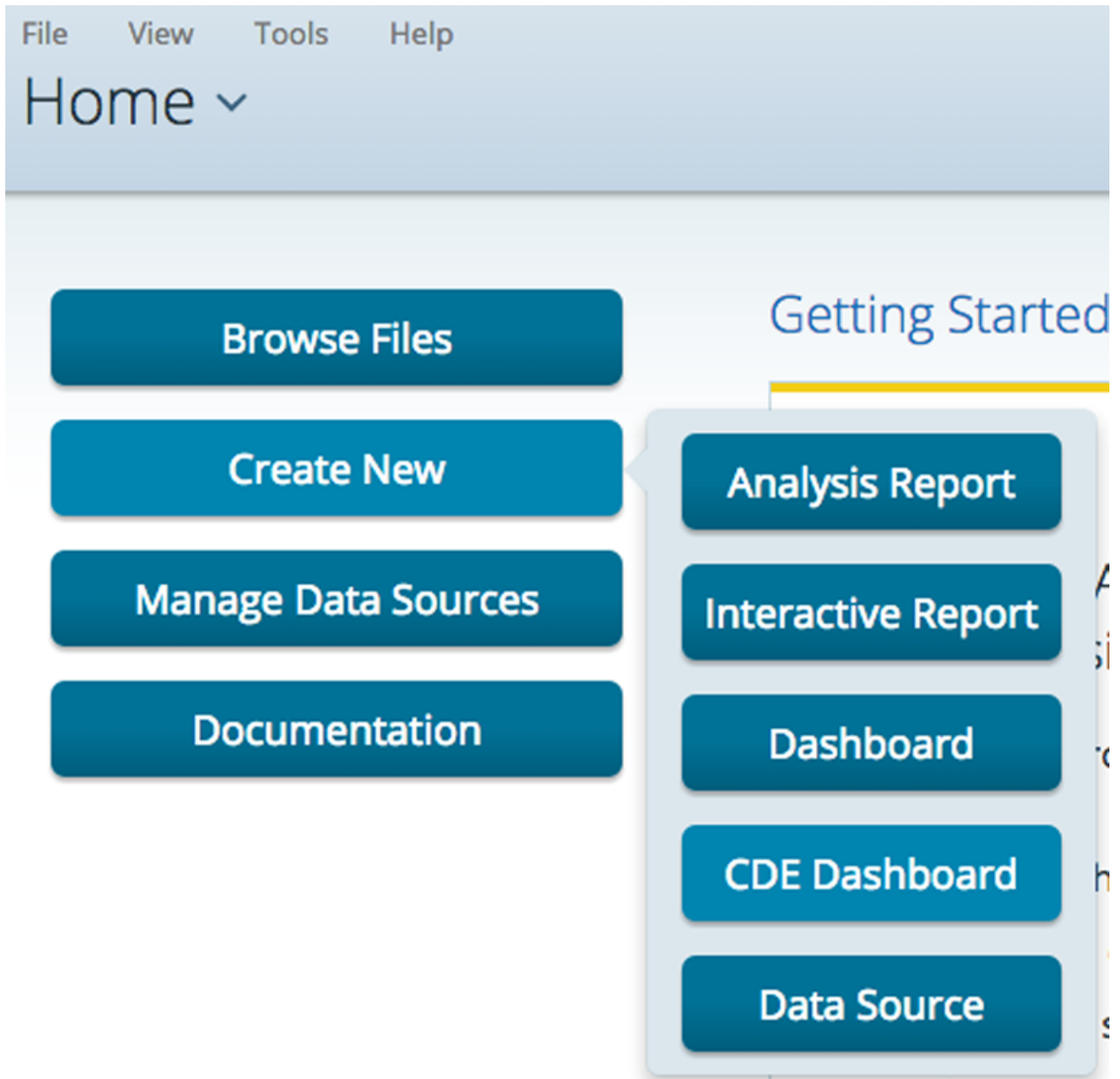
- [Plan your dashboard](#)

## Open CDE

You can launch the dashboard editor from the Pentaho User Console Home page.

### Procedure

1. Log on to the [Pentaho User Console](#).
2. From the Home page, click the **Create New** button.
3. From the menu that displays, select the **CDE Dashboard** option.  
You can now begin creating your first CDE dashboard. Alternatively, you can click the **File** menu, click **New**, and then click **CDE Dashboard**.



### Results

The dashboard editor now displays in a new tab on the Home page, showing a blank dashboard. You are now ready to create your first dashboard.

## Parent Topic

- [CDE quick start guide](#)

# Create your first CDE dashboard

In this walk-through tutorial, you will create your first CDE dashboard using the Steel Wheels sample data included in your Pentaho Enterprise edition.

Your goal for this tutorial is to create a simple dashboard with a centered title. The dashboard will include a product selection field and a line chart in a side-by-side layout. This process is broken down into five basic steps.

## Parent Topic

- [CDE quick start guide](#)

## Child Topics

- [Create and save a new dashboard](#)
- [Create the layout for the dashboard](#)
- [Customize the Data Source perspective](#)

In this example, we will use two MDX queries: one for the dropdown selector and one for the line chart. The same exercise can be done with SQL sources or other options.

- [Customize the Components perspective](#)

Finally, switch to the Components perspective.

- [Preview the dashboard](#)

## Create and save a new dashboard

Before you begin

This task assumes you are in the Pentaho User Console (PUC).

### Procedure

1. [Open CDE.](#)
2. On the CDE menu bar, click **Save**.
3. On the Save as dialog box which displays, navigate to the folder where you want to save your file. For this example, navigate to the `myDashboards` folder.
4. In the **File Name** field, enter a descriptive name for your dashboard, such as `myFirstDashboard`.
5. Click the **Dashboard** option.  
For information about the **Widget** option, see the *CDE Reference Guide*.
6. Click **Ok**.  
Your dashboard is now saved.

Save as

Ok

Cancel

Choose Format

☒ Dashboard

☐ Widget

Choose Folder

public

CDE Tutorial

Steel Wheels

myDashboards

plugin-samples

home

File Name\*

myFirstDashboard

Title

My First Dashboard

Description

This is my first dashboard

#### Parent Topic

- [Create your first CDE dashboard](#)

### Create the layout for the dashboard

The CDE Layout perspective allows you to design the layout of your dashboard from scratch or using a template. While defining the layout you can apply styles and add HTML elements such as text or images. [Click here](#) for a tour of the Layout perspective.

Notelt is recommended that you use camel case for value names. Also note, you must press Tab or Enter to save values.

In this tutorial, you will use the Layout perspective to create the placeholders for the selector (and its title) and the line chart.

#### Parent Topic

- [Create your first CDE dashboard](#)

#### Child Topics

- [Add the main row](#)
- [Add the main column](#)
- [Set the width of the main column](#)
- [Add rows to the main column](#)
- [Enter a dashboard title](#)
- [Enter the dashboard content](#)
- [Save the dashboard](#)

#### Add the main row

1. On the **Layout Structure** toolbar, click the **Add Row** icon.
2. Enter a name for the row. In the **Properties** pane, click in the **Value** column for the **Name** property and type `mainRow`. Press Tab or Enter.

#### Parent Topic

- [Create the layout for the dashboard](#)

#### Add the main column

1. On the **Layout Structure** toolbar, click the **Add Column** icon.
2. Enter a name for the column. In the **Properties** pane, click in the **Value** column for the **Name** property and type `mainColumn`. Press Tab or Enter.

#### Parent Topic

- [Create the layout for the dashboard](#)

#### Set the width of the main column

You can assign the width of the column with the properties across multiple devices. You only need to assign the values to one of these types of devices. For example, if you do not need to have a site which fits well in all devices, you can set the values only for the **Extra Small Devices**. That way, all the other devices will inherit the layout which you assign for that category.

#### Procedure

1. In the **Properties** pane, locate the **Extra Small Devices** property and click in the **Value** column.
2. In the text box, type `12` and press Tab or Enter. Because of the inclusion of Bootstrap libraries, the

columns in a row must occupy 12 spans, which is the total span size for Bootstrap. For more information on Bootstrap in CDE, see [Tour of the CDE](#).

#### Parent Topic

- [Create the layout for the dashboard](#)

#### [Add rows to the main column](#)

1. In the left pane, select the **mainColumn**.
2. On the **Layout Structure** toolbar, click the **Add Row** icon twice.  
Two rows are added to the column in the **Layout Structure** pane.

#### Parent Topic

- [Create the layout for the dashboard](#)

#### [Enter a dashboard title](#)

When adding HTML text to a dashboard, the HTML must be added to a column. In this task, we add a column to the top row so we can add the HTML text for the dashboard title.

#### Procedure

1. Select the top row in the **mainColumn**, and then click the **Add Column** icon.  
This column will contain the title for the dashboard.
2. In the **Properties** pane, click in the **Value** column for the **Name** property and type `dashboardTitle`.  
Press Tab or Enter.
3. To center the title in the column, locate the **Text Align** property and click in the **Value** column. On the keyboard, press the down arrow to display a dropdown menu and select **Center**.
4. Add HTML text for the `dashboardTitle`. In the **Layout Structure** pane, click to select the **dashboardTitle** column, and then on the **Layout Structure** toolbar, click the **Add Html** icon.
5. On the **Properties** pane, locate the HTML property and click the ellipsis button. An **Edit** window will display. Type the title of the dashboard using HTML tags, such as `<h1>My First Dashboard</h1>`, and then click **Ok**.

#### Parent Topic

- [Create the layout for the dashboard](#)

#### [Enter the dashboard content](#)

1. Select the bottom row.  
This row will be used for the content of the dashboard.
2. In the **Properties** pane, click in the **Value** column for the **Name** property and type `dashboardContent`.  
Press Tab or Enter.
3. Add one column. In the **Layout Structure** pane, click the **Add Column** icon.

This column will be the container for the selector, including the title of the selector and the selector itself.

4. To set the column width, in the **Properties** pane, locate the **Extra Small Devices** property and click in the **Value** column. Type 4 and press Tab or Enter.
5. Add two rows to nest inside this column. In the **Layout Structure** pane, click the **Add Row** icon twice.
6. Add the selector.

1. In the **Layout Structure** pane, click to select the bottom row and then click the **Add Column** icon.
2. In the **Properties** pane for the newly added column, click in the **Value** column for the **Name** property and type `selectorObj`. Press Tab or Enter.

Note This column will be the placeholder for the selector, so we should remember its name. It will be referred on the `htmlObject` property of the select component which we will add later.

7. Add the title of the selector.
  1. In the **Layout Structure** pane, click to select the row above the `selectorObj`, and then click the **Add Column** icon.
  2. In the **Properties** pane for the newly added column, click in the **Value** column for the **Name** property and type `selectorTitle`. Press Tab or Enter.
  3. In the **Layout Structure** pane, click to select the `selectorTitle` column and then on the **Layout Structure** toolbar, click the **Add Html** icon.
  4. Locate the **HTML** property and click the ellipsis button. An Edit window displays. Type the title of the selector using HTML tags, such as `<b>Select Product</b>`, and then click **Ok**.
8. On the **Layout Structure** pane, click to select the **dashboardContent** row, and add one column by clicking the **Add Column** icon.
9. Name the column. In the **Properties** pane, click in the **Value** column for the **Name** property and type `chartObj`. Press Tab or Enter.
10. To set the column width, click in the **Value** column for the **Extra Small Devices** property and type 8. Press Tab or Enter.

Note This column will be the placeholder for the line chart, so we should remember its name.

## Parent Topic

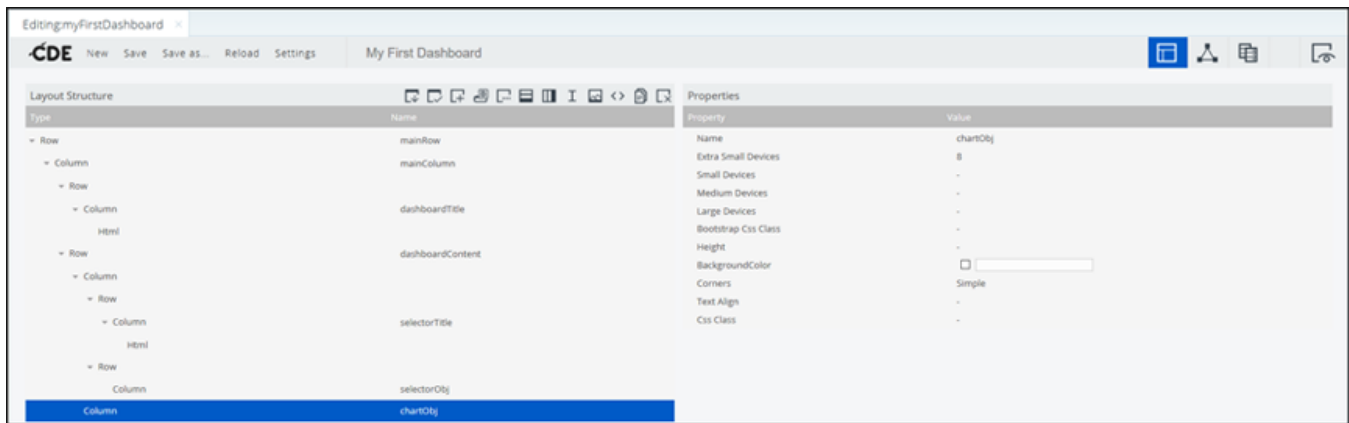
- [Create the layout for the dashboard](#)

## Save the dashboard

To save the dashboard, on the **CDE** menu bar, click **Save**.

As a precaution, it is a good practice to save the dashboard regularly. This is how the **Layout Structure** pane should look like after you follow the steps so far:





## Parent Topic

- [Create the layout for the dashboard](#)

## Customize the Data Source perspective

In this example, we will use two MDX queries: one for the dropdown selector and one for the line chart. The same exercise can be done with SQL sources or other options.

## Parent Topic

- [Create your first CDE dashboard](#)

## Child Topics

- [Select a data source](#)
- [Customize the data source](#)
- [Enter an MDX Query](#)
- [Add a query with parameters](#)

Here, we will add a query with parameters.

## Select a data source

1. To view the Data Sources perspective, on the **CDE Perspectives** toolbar, click the **Data Sources Panel** icon.
2. To add an MDX over mondrianjndi data source, from the **Data Source** list, expand **MDX Queries**, and then click **mdx over mondrianjndi**.

## Parent Topic

- [Customize the Data Source perspective](#)

In this example, we will use two MDX queries: one for the dropdown selector and one for the line chart. The same exercise can be done with SQL sources or other options.

## Customize the data source

1. Name this data source. In the **Properties** pane, click in the **Value** column for the **Name** property and

type `selectorQuery`. Press Tab or Enter.

2. Select the JNDI connection. In the **Properties** pane, click in the **Value** column for the **Jndi** property. On the keyboard, press the down arrow to display a drop-down menu and select the **SampleData** connection.
3. Select the **Steel Wheels** schema. In the **Properties** pane, click in the **Value** column for the **Mondrian schema** property. On the keyboard, press the down arrow to display a dropdown menu and select the **SteelWheels** schema.

#### Parent Topic

- [Customize the Data Source perspective](#)

In this example, we will use two MDX queries: one for the dropdown selector and one for the line chart. The same exercise can be done with SQL sources or other options.

### Enter an MDX Query

#### Procedure

1. Enter the **MDX Query**. In the **Properties** pane, locate the **Query** property and click the ellipsis icon to the right. The MDX Editor window displays. Enter the following **MDX Query** and then click **Ok**.

```
WITH
    MEMBER [Measures].[Product Member Name] AS
    [Product].[Product].CurrentMember.UniqueName
SELECT
    [Measures].[Product Member Name] ON COLUMNS,
    [Product].[Product].Members ON ROWS
FROM [SteelWheelsSales]
```

2. You will want the selector to display the names of products to the user while using the product's internal name or ID for selecting the corresponding data in the chart. Therefore, you will need to change the order of your columns.
  1. Click in the **Value** column for the **Output Columns** property.
  2. In the new window, click the **Add** button once to add another index field for a total of two index fields.
  3. In the first Index field, type 1. In the second Index field, type 0 and click **Ok**.

#### Results

You have created your first **MDX Query**.

#### Parent Topic

- [Customize the Data Source perspective](#)

In this example, we will use two MDX queries: one for the dropdown selector and one for the line

chart. The same exercise can be done with SQL sources or other options.

## Add a query with parameters

Here, we will add a query with parameters.

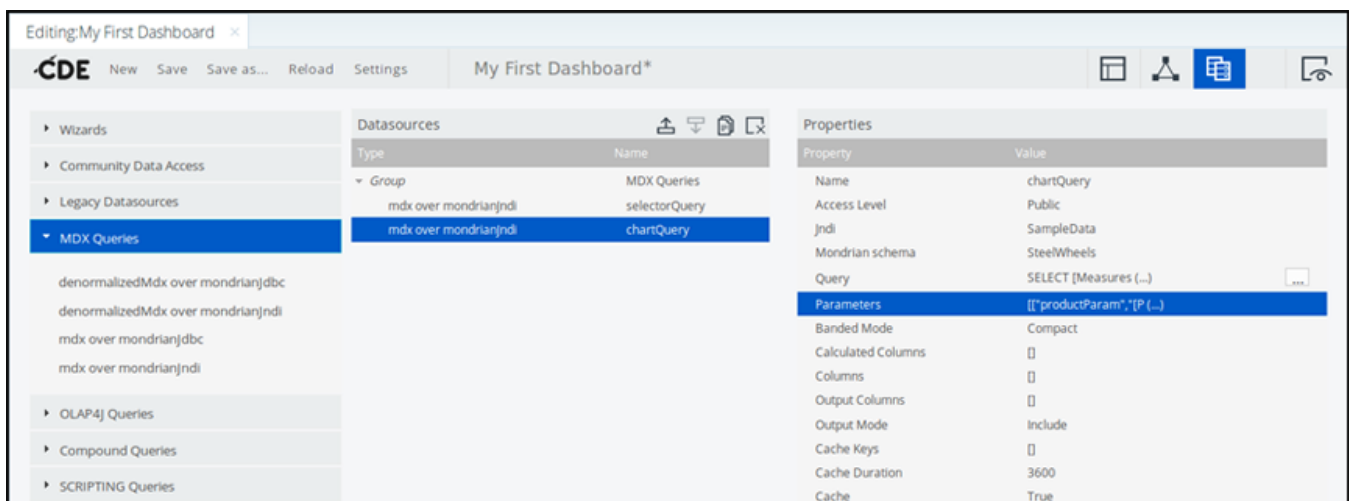
### Procedure

1. [Select a Data Source](#).
2. Name this data source. In the **Properties** pane, click in the **Value** column for the **Name** property and type `chartQuery`. Press Tab or Enter.
3. Complete steps 2 and 3 of the [Customize the Data Source](#) task.
4. Enter the **MDX Query**. In the **Properties** pane, locate the **Query** property and click the ellipsis icon to the right. The MDX Editor window displays.
5. You will add the following query to the **chartQuery**:

```
SELECT
    [Measures].[Sales] ON COLUMNS,
    [Time].[Months].Members ON ROWS
FROM
    [SteelWheelsSales]
WHERE ${productParam}
```

You can notice the parameter `productParam` being referred on the WHERE clause (identified with the syntax `${parameterName}`).

6. To add this parameter to the data source, click in the **Value** column for the **Parameters** property.
7. In the **Name** column, type `productParam`. In the **Value** column, type `[Product].[Planes].[Autoart Studio Design].[1900s Vintage Bi-Plane]`. Leave the **Type** column defaulted to String. Click **Ok**.
8. [Save your dashboard](#).



## Parent Topic

- [Customize the Data Source perspective](#)

In this example, we will use two MDX queries: one for the dropdown selector and one for the line chart. The same exercise can be done with SQL sources or other options.

## Customize the Components perspective

Finally, switch to the Components perspective.

- To view the Components perspective, on the **CDE Perspectives** toolbar, click the **Components Panel** icon.

## Parent Topic

- [Create your first CDE dashboard](#)

## Child Topics

- [Add a parameter](#)
- [Add a selector](#)
- [Add a line chart](#)
- [Link two components using parameter listening](#)

## Add a parameter

1. To add a simple parameter, from the **Components** list, expand **Generic**, and then click **Simple Parameter**.
2. For this parameter, use the same name and default value as the chart query parameter in the **Add a Query with Parameters** task. In the **Properties** pane:
3. Name the parameter. In the **Properties** pane, click in the **Value** column for the **Name** property and type `productParam`. Press Tab or Enter.
4. Set the default value. Click in the **Value** column for the **Property** value property and type `[Product].[Planes].[Autoart Studio Design].[1900s Vintage Bi-Plane]`. Press Tab or Enter.

## Parent Topic

- [Customize the Components perspective](#)

Finally, switch to the Components perspective.

## Add a selector

1. From the **Components** list, expand **Selects**, and then click **Select Component**.
2. Customize the selector in the **Properties** pane.
  1. Name the selector. Click in the **Value** column for the **Name** property and type

`productSelector`. Press Tab or Enter.

2. Select the parameter. Click in the **Value** column for the **Parameter** property. On the keyboard, press the down arrow to display a dropdown menu and select **productParam**, which is the previous parameter you have created.
3. Set the **Value as id** to **False**. Click in the **Value** column for the **Value as id** property. On the keyboard, press the down arrow to display a dropdown menu and select **False**.
4. Select the data source. Click in the **Value** column for the **Datasource** property. On the keyboard, press the down arrow to display a dropdown menu and select **selectorQuery**.
5. Select the HTML object. Click in the **Value** column for the **HtmlObject** property. On the keyboard, press the down arrow to display a dropdown menu and select **selectorObj**, which is the placeholder you created in the **Layout** perspective.

## Parent Topic

- [Customize the Components perspective](#)

Finally, switch to the Components perspective.

## Add a line chart

1. From the **Components** list, expand **Charts**, and then click **CCC Line Chart**.
2. Name the line chart. In the **Properties** pane, click in the **Value** column for the **Name** property and type `lineChart`. Press Tab or Enter.
3. Specify the parameters to be used on the **lineChartQuery**. In the **Properties** pane, click in the **Value** column for the **Parameters** property.
  1. In the **Arg** field, type `productParam`.
  2. Click in the **Value** field. On the keyboard, press the down arrow key to display a dropdown menu and select **productParam**. The name on the left (**Arg**) is the "CDA/Data source parameter name." The name on the right (**Value**) is the "CDE parameter" which you created in this same section. It is recommended that you use the same name for both sides.
  3. Click **Ok**.
4. Select the data source. Click in the **Value** column for the **Datasource** property. On the keyboard, press the down arrow to display a dropdown menu and select **chartQuery**.
5. Set the width and height for the chart:
  1. Click in the **Value** column for the **Width** property and type `500`. Press Tab or Enter.
  2. Click in the **Value** column for the **Height** property and type `200`. Press Tab or Enter.
6. Select the HTML object. Click in the **Value** column for the **HtmlObject** property. On the keyboard, press the down arrow to display a dropdown menu and select **chartObj**. This is the placeholder which you

have selected before for this component in the Layout perspective.

## Parent Topic

- [Customize the Components perspective](#)

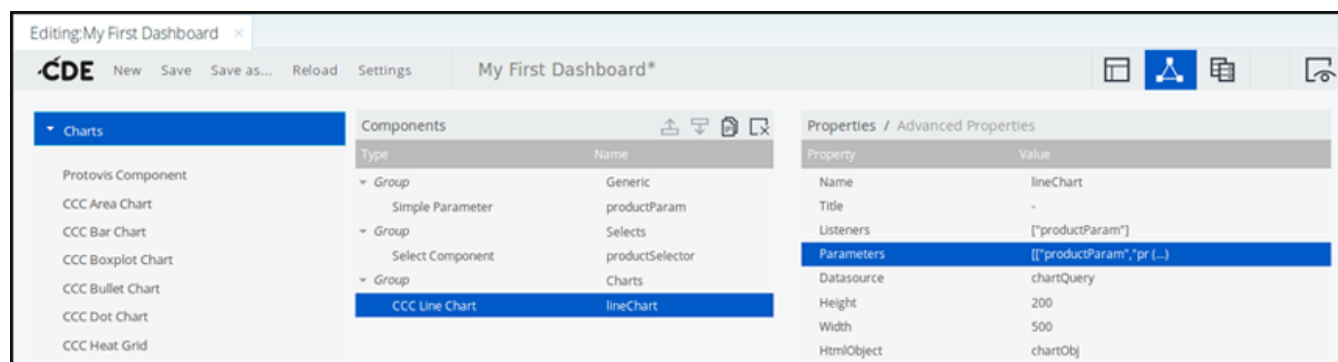
Finally, switch to the Components perspective.

## Link two components using parameter listening

To make the line chart respond to the changes on the product selector, we need to specify that the chart component listens to the parameter that the productSelector controls, which is `productParam`.

### Procedure

1. Click to select the **lineChart** component.
2. To set the listeners, click in the **Value** column for the **Listeners** property.
3. Click the dropdown arrow and then click to select the **productParam** checkbox.
4. Save the dashboard.



## Parent Topic

- [Customize the Components perspective](#)

Finally, switch to the Components perspective.

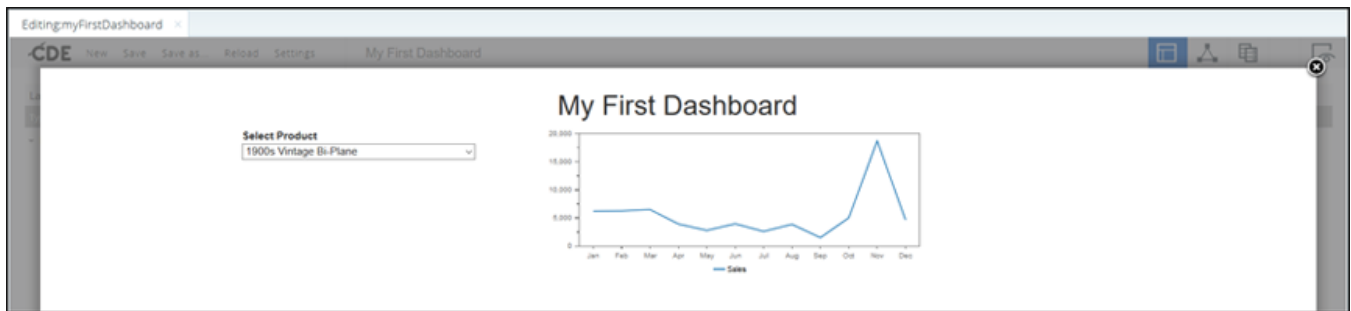
## Preview the dashboard

While designing your dashboard, it is recommended that you preview your dashboard from time to time to inspect how the layout will look to your users.

### Procedure

1. On the **CDE Perspectives** tool bar, click the **Preview your Dashboard** icon.  
The Preview window displays.
2. Test your dashboard by changing the displayed values in the dropdown selector.
3. Close the Preview window.

### Results



If you followed these instructions, you should now have a functioning dashboard created in CDE.

A lot of styling and customizing work still remains. Keep in mind that each component has a life cycle which has only been briefly addressed when we added the listeners.

### Parent Topic

- [Create your first CDE dashboard](#)