Level Up your App Studio knowledge in WebFOCUS Designer

Alexander Homer and Kin Lim
Information Builders
Information Builders Golden Summit 2025

Author: Alexander Homer and Kin Lim
Company: Information Builders
Presentation Title: Level Up your App Studio knowledge in WebFOCUS Designer
Presentation Abstract: Hands on experience to take existing WebFOCUS content and assemble into Designer pages. We will also explore the date filter and interactions.

Lab Goals:

- Review an existing Designer page and how a user can interact with it.
    - Changing filter values, drilldowns, re-sorting data grids,
- Assemble a Designer page from existing WebFOCUS content.
    - Using page templates, adding filters, applying page themes.

Table of Contents:

General Notes.

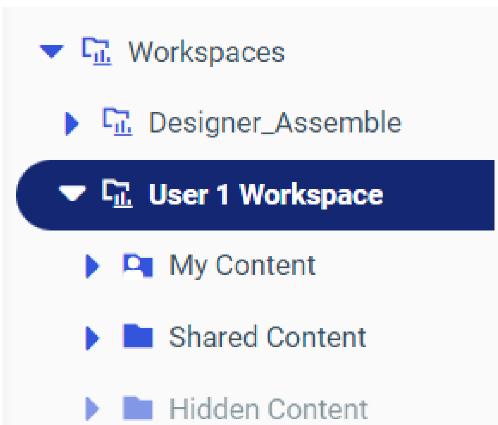
1. This Lab assumes existing knowledge of creating WebFOCUS reports/charts.

2. 

For certain exercises, a partially completed exercise has been created to allow picking up the remainder of the exercise from this point. Instructions are given indicated with an image.

3. 

There are also notes with other information that may be useful in the document, indicated with a tip icon. This information is not required to complete the exercises.

4. 

In your User "n" Workspace you will find several partially completed exercises which can be used as a reference.

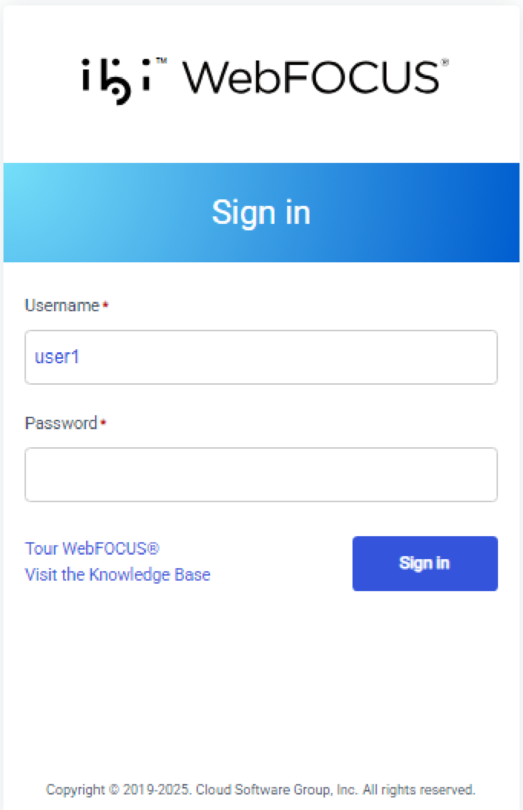
What is the HUB?

The HUB is the starting point once logged into WebFOCUS. It is a centralized area where you can create content, view reporting server items, view portals, view management functions (to what level you have been authorized).

Login Instructions.

1. Open a browser and navigate to the following web address: https://ibi-summit.aws-ibcloud.ibi.com/ibi_apps

2. At the Sign in to WebFOCUS window, enter your assigned user id (ex: **user1**) as the user name and no password, and click sign in.



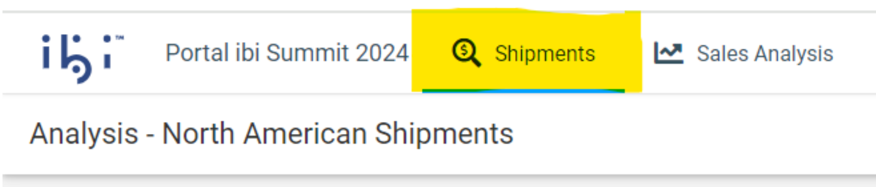
3. At this point you have logged into WebFOCUS in one of our Cloud setups. This environment already has some sample files loaded (wf_retail) along with a **Designer_Assemble** domain with existing content. You also have your own workspace **User "n" Workspace** where you can create and save content. This workspace also has some partially completed exercises you can use for reference.

Exercise 1 – Open the existing Designer portal to see what we will be assembling.

In this exercise we are going to open a previously created Designer portal consisting of two pages. It has several WebFOCUS reports/charts designed in content panels along with parameters for those reports. We will review several features of this page that we will then create in the next exercise.

1. From the **Workspaces** section on the left – Navigate into the **Designer_Assemble** workspace. Right-click on the **Portal ibi Summit 2025** portal and **Run**. Alternatively you could have navigated to the **Portals** section of the HUB and found the "**Portal ibi Summit 2025**" page there as well.

2. This portal contains two Designer pages – **Shipments** and **Sales Analysis**. We will start on the Shipments tab.



3. The top left container is initially displaying Revenue by Store Name. Using the filters on top of this report, you can toggle between the TOP or LOWEST 10, 30 or all for the selected Dimension and Measure. It also shows a data bar. You can change any of these parameters and the report will update accordingly.

4. Change the displayed Dimension from Store Name to Recipient State.

5. You can also click the measure values to drill-down to one of three other reports.

6. Moving to the bottom container we have a map showing Shipment Quantity by States and Cities. Click the Maximize icon in the toolbar to maximize this container for the page.

7. We have multiple layers (State and City). Color coded based on volume of sales. Type in Boston for search box - Zoom out and click on Boston.Then scroll back out.

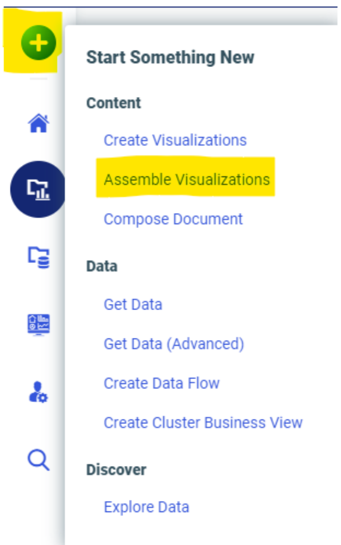
8. We can also view the second tab in this Designer portal “Sales Analysis”. This includes several reports along with filters and buttons. We will be exploring those buttons in exercise 3 and 4.

9. This is the end of exercise 1.

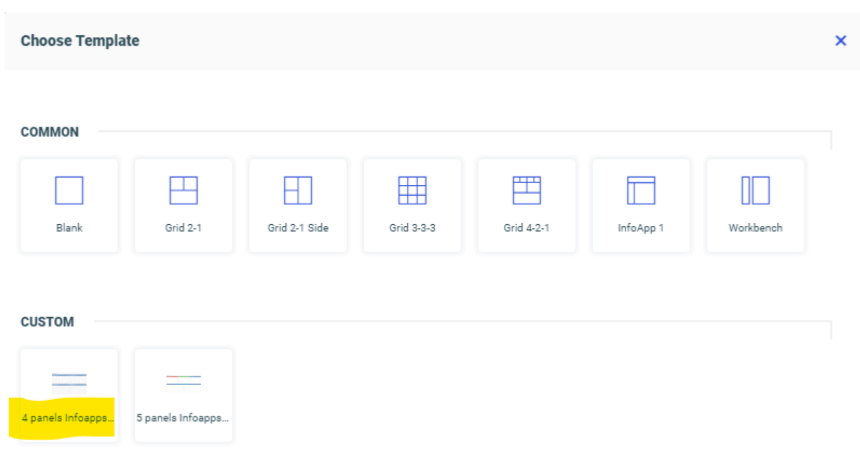
Exercise 2 – Assemble Designer page from existing content

We will be assembling a Designer page similar to the first page in the Portal ibi Summit 2025 we reviewed in exercise 1. We will be using pre-existing content.

1. From the **Your User Workspace** folder click the round symbol from the upper left of the HUB and select **Assemble Visualizations** from the **Start Something New** / **Content** menu.



2. You will be prompted to select a template. Select the "**2 panels InfoApps template**" from the CUSTOM section.
   This is a custom template created from a Designer page with only empty containers.



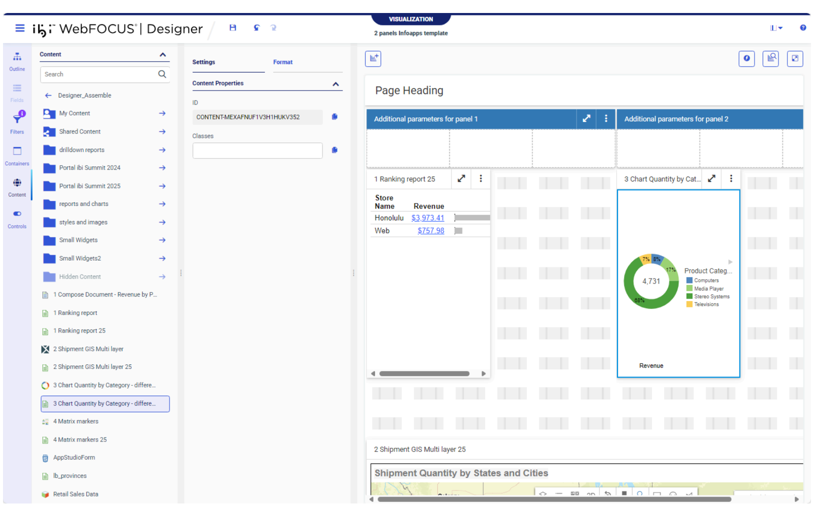
tip You could also select one of the other templates and configure it to look how you want (including the Blank template).

3. We want to drag 3 existing reports/charts into the containers on the page. We will be selecting reports from the “**Designer Assemble**” workspace. From within the Designer page screen – the content area should be selected from the left toolbar. Then navigate into the “**Designer Assemble**” workspace where you will find several reports we are using. Drag the following reports into the following containers on your page:

1 Ranking report	3 Chart Quantity by Category - different formats
2 Shipment GIS Multi layer	

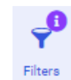
Drop each item into the panel group with the filter controls. The panel group ensures that when we reduce the width of the page,

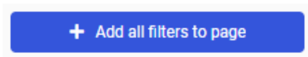
- **1 Ranking Report** into the left container.
- **2 Shipment GIS Matrix** below both containers.
- **3 Chart quantity by Category – different formats** into the right container.



tip

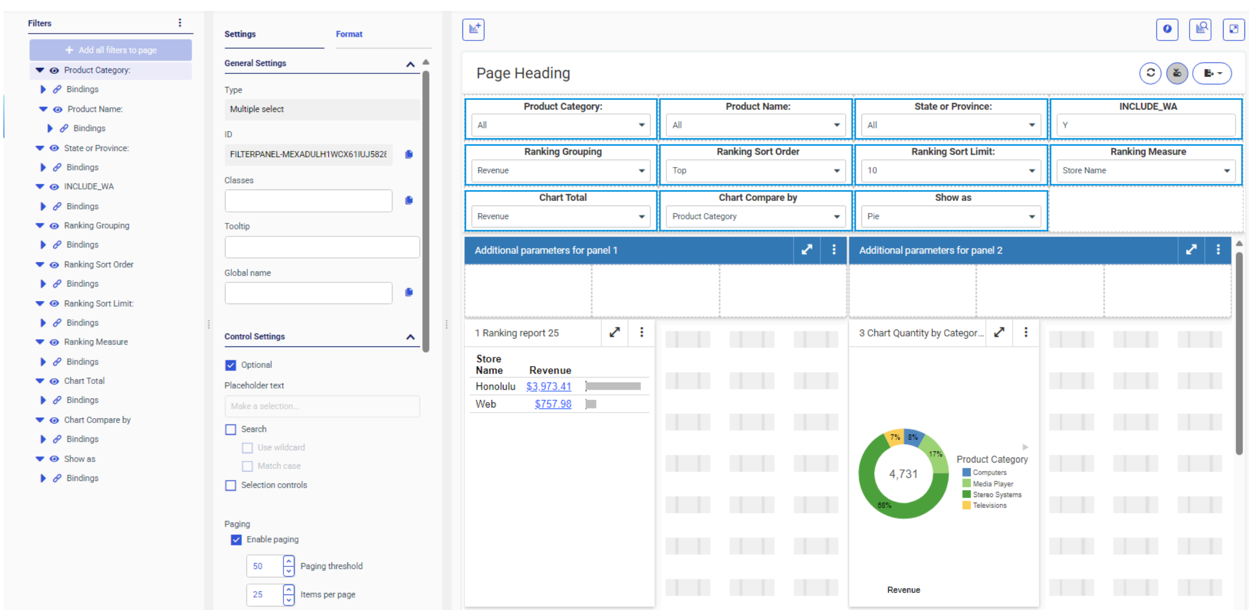
If you drag a report/chart onto an existing chart/report on the page, the Designer tool will ask if you want to replace the content or add to it (new tab, new slide, new accordion). For our purposes we are just placing single content into each container area.

4. Notice on the left hand side the filters area has an informational message: 

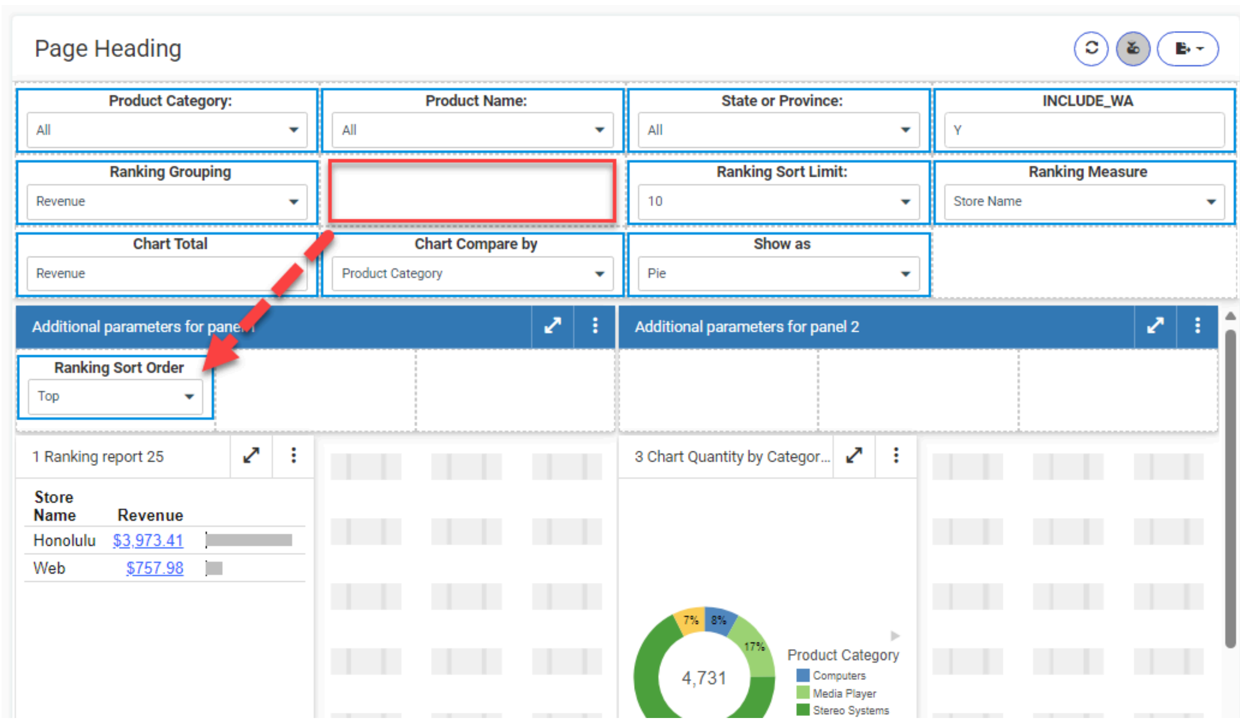
.
Click on this **Filters icon** and then click on **Add all filters to page** Button.


.

This will add any needed filters for the reports/charts not already on the page. After clicking the button the filters will be added to the top of the page:

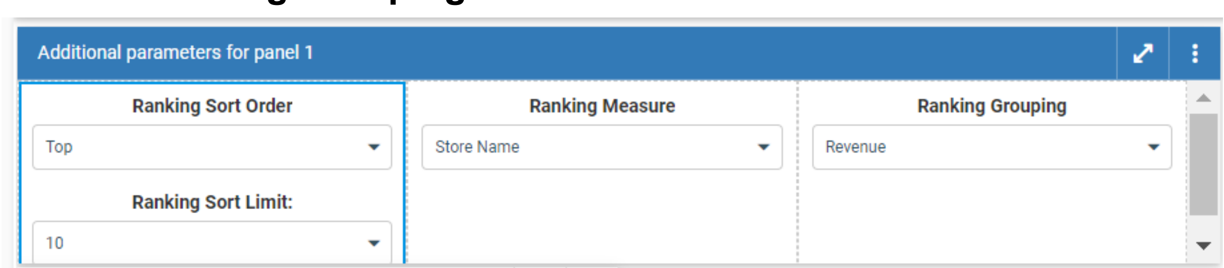


5. We now want to move some of these filters from the top of the page to the top of the specific content container they are associated with. We will click and drag filters one at a time from the top area and release into the grid area above the containers.



a) For the **upper left container (Ranking)** – we will be moving:

- Both **Ranking Sort Order** and **Ranking Sort Limit** into the first cell.
- **Ranking Measure** into the second cell.
- **Ranking Grouping** into the third cell.



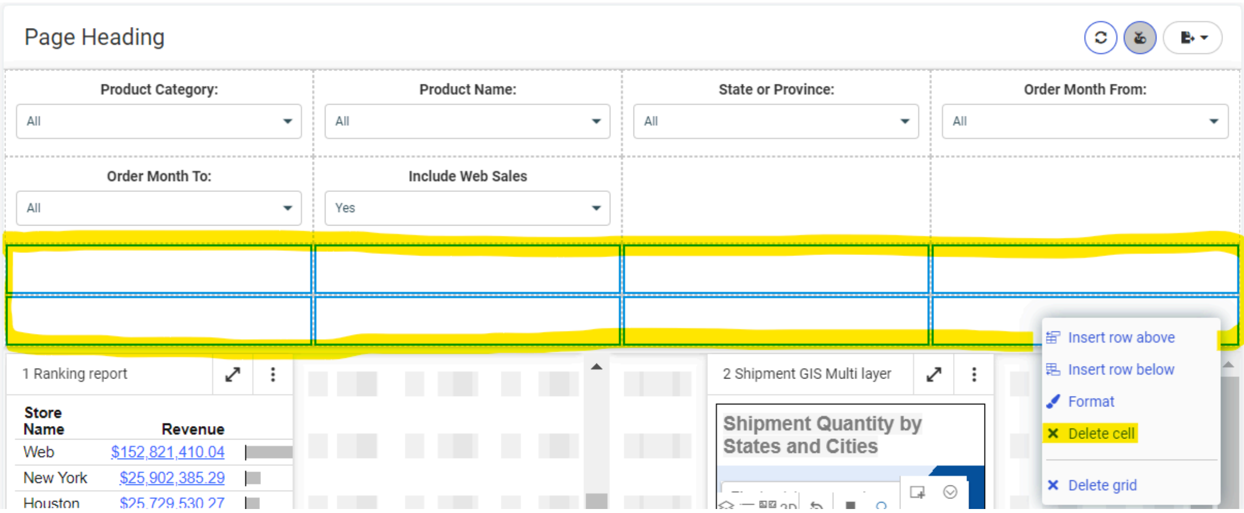
tip

On the left hand resources toolbar there is an option titled “Outline” Outline. This can be helpful to know what section in the page you have currently selected.

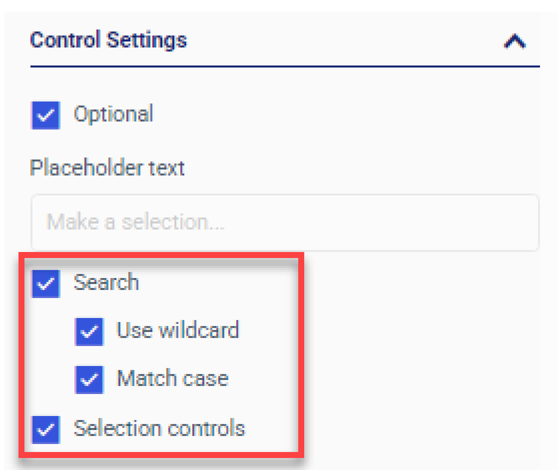
b) For the **right container (Chart)** – we want to drag in

- **Chart Total** into the first cell
- **Chart Compare by** into the second cell
- **Show As** into the third cell.

6. Delete rows 3 and 4 of the top parameters (which are now blank). You can select the 8 cells and then right-click and select the delete cell option.

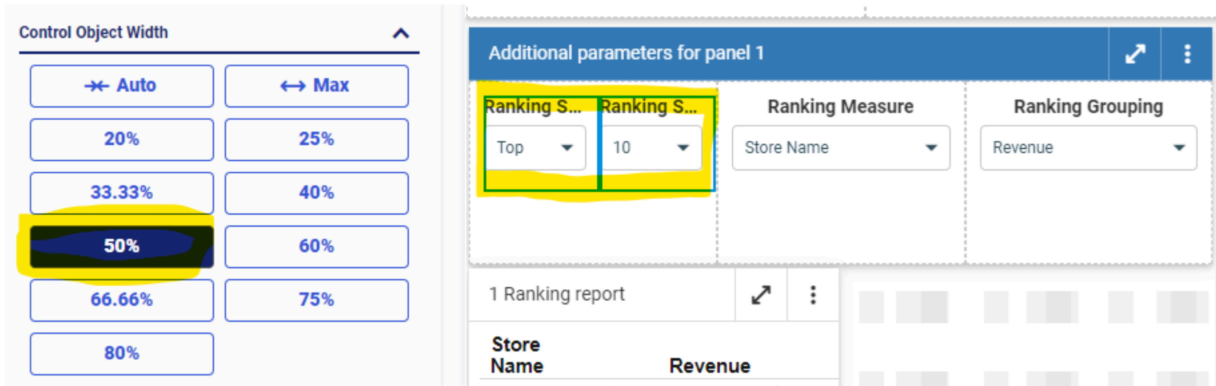


7. Let's take a look at the State or Province filter, and open the drop-down menu. Notice that there are a lot of values. It would be easier to use this filter if we could search for the values we need.
Select the State or Province filter control and, on the Settings tab, enable the Search option. Let's also enable the ability to use the wildcard and match case options at run time, available as of 9.3.5, and turn on Selection controls so we have a Select All and Clear button.



8. We want to organize the parameters in the **upper left panel (Ranking)**. Select both the **Ranking Sort Order** and **Ranking Sort Limit** in the first cell. You

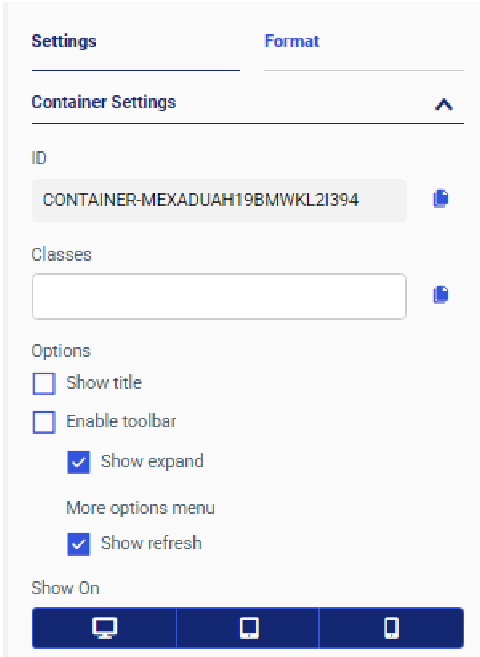
can use shift-click or ctrl-click. Right-click and select **format**. Then from the format settings area change the control object width to **50%**. These two parameters should now be side by side:



9. However, you may not have enough space to see the whole title, depending on the width of your screen. Let's select the first control, which has Top as a default, and, on the Settings tab, type **Ranking Sort Order** into the Tooltip field.
   Hover over the filter title to see this tooltip.
10. For the **Ranking Sort Order** - you can change the label text to "**Show**". Double-click the label in the filter control and type **Show**. This is another alternative to provide a short title that should display nicely on smaller screens, albeit with a bit less detailed information.

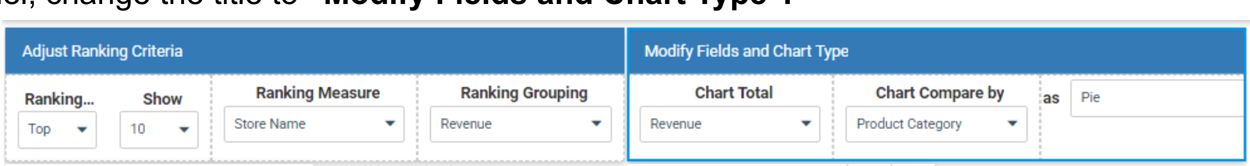
11. For the chart and report in the panel groups,– expand the height and width so it fills the entire open space of the panel. You may see a set of scrollbars briefly while resizing as the tool calculates the required space, but once you drop, it should fit perfectly.
12. Now let's also extend the map so it fills the full width of the page

13. For the chart and report panel titles, select the title area and **uncheck** the box for "**Show title**".and **Enable toolbar** in the Settings area. This will be done 2 times – once for the chart and once for the report container panel.

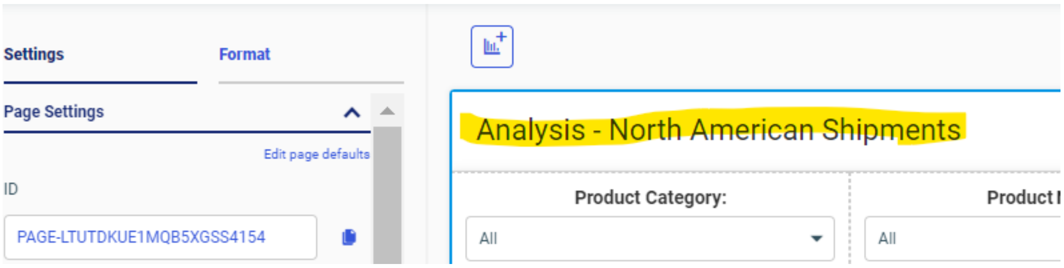


14. Now select the map container toolbar. This time, only clear the **Show title** option. Leave **Enable toolbar** selected so you can make the map full screen at run time. It is often preferred to have as much real estate as possible when viewing a map, because they contain lots of detail.
15. Now, for one of our controls, let's change the alignment to see how that will look. Select the **Show As** control for the pie chart. On the Format tab, select the **Label Left** option, and make sure the Label/Control Split is set to **Auto**.

16. For each of the content parameter sections – **uncheck** the "**enable toolbar**". Since these are the parameter sections we don't need any of the expanded toolbar functionality.
17. Retitle the filter grid for the left panel, **"Adjust Ranking Criteria",** and for the right panel, change the title to **"Modify Fields and Chart Type".**



18. Change the page heading from “**Page Heading**” to “**Analysis – North American Shipments**”. You can double-click on the Page heading text to change it.



tip

A theme affects the look of the entire set of elements on the page, including colors, opacity, and typeface styles. In addition to several pre-built themes you can also create your own.

19. Run the page. Notice that all of our changes are applied, including the filter control and component label changes.
20. Shrink the width of the page to see the panel groups in action. When the content wraps, the filters stay with their respective items.
21. This is the end of Exercise 2.

Exercise 3 – Viewing Date selections

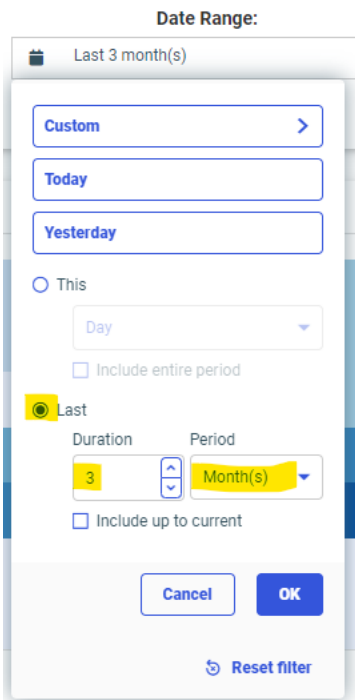
We will be reviewing some additional Designer page capabilities in this exercise related to some additional filter behaviors.

>> Let's start by reviewing our calendar controls. When you create a date filter, it could be used to select a single date, or a date range. When filtering for a date range, you have the option to set a static range (such as Jan 1, 2025 to Jun 1, 2025) or a dynamic range, like the last few days, weeks, or months. While the static range will not update over time, and may eventually show irrelevant data. A dynamic date range will always show data relative to the current date.

For starters we will run an existing Designer page to see a few concepts and then we will edit a page to apply those same concepts.

1. From the **Designer_Assemble** workspace, run the **5 Sales Analysis page_date_range_interactions** page.

2. Click the **Date Range** filter and select Last 3 months. This is done by:
   - selecting the **Last** radio button
   - updating the **duration** to **3**
   - changing the **period** to **Month(s)**



Notice when the **Revenue by Month and Category** report runs it displays data for the last 3 full months.

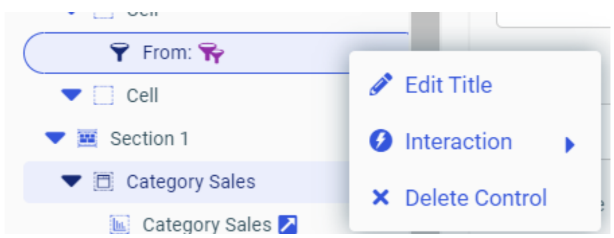
3. With the Include up to current checkbox de-selected, this filter selects the last 3 full months. For example, since it's October, it will select July, August, and September. Reopen the filter, select the **Include up to current** check box, and apply the filter again.
4. Notice that the filter now additionally includes October, up to the current date.
5. This is the end of Exercise 3.

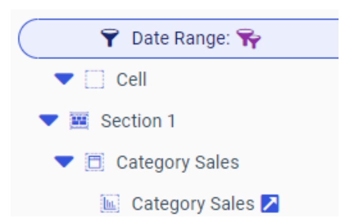
Exercise 4 – Updating page with date filter ~~and interactions~~

We will be walking thru steps to enable some of the date filter options along with adding an interaction to the page.

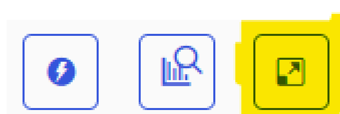
1. From the **User "n Workspace** (Designer Assemble 'n') workspace, edit the **6 - base Sales Analysis page** page. Right-click and select the edit menu option.

2. Multi-select "**From**" and "**To**" parameter controls and right mouse-click and choose "**Combine**". Now they are one control.
3. The combined filter uses the label from the first control. If you want to change the title of the combined filter control, use the Outline section. Find the Cell in the outline section, right-click on From: and select the "Edit Title" option. You could change the title to "Date Range:".





tip	*When you select these date controls - if you select above the dropdown (and not the dropdown) it will avoid the calendar popup from occurring. This is helpful since we aren't selecting a date from the calendar but the control itself.*

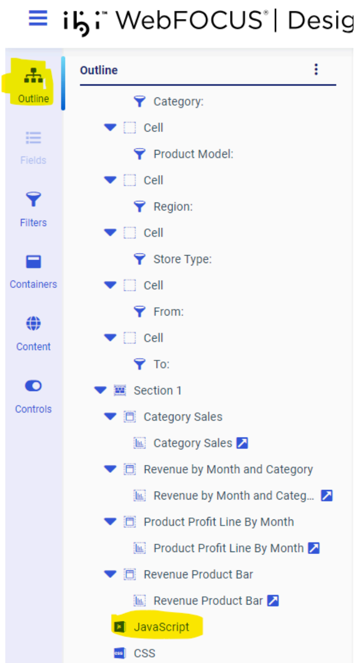
4. Run the page by clicking the  button which will run in a new window. You will see similar behavior to exercise 3 where we interacted with this single date control.
5. This is the end of Exercise 4.

Exercise 5 – Adding custom CSS and JavaScript to a Designer Page

We will be walking thru steps to add custom java-script to a Designer page.

1. From the **Designer_Assemble** workspace, edit the **5 Sales Analysis page_date_range_interactions** page.
2. Designer includes options to add custom CSS and JavaScript to your page to customize the styling of the page and add custom run-time behaviors. CSS is a powerful tool for styling web pages of all kinds. Let’s make a simple change to the cascading style sheet (CSS) styling of the page.
3. Select the **Outline** and scroll to the bottom. Select the **CSS** outline item. This will open the CSS text editor
4. Let’s change some of the fonts in our page. We’ll type in
   .ibx-text-field,.ibx-label-text {
   The text below the bracket is a CSS selector, and must be typed exactly as shown. The periods at the start of each label indicate that both **ibx-text-field** and **ibx-title-text** are classes. Without a period, CSS would treat these selectors as HTML element types, like p, h1, or div. Many other types of selectors are also available.
   The comma in between indicates that we are applying the styling to both of these selected classes. This is called a grouping selector, and there are other grouping selectors that allow you to apply your CSS to different sets of selected objects on a page.
5. Press the Enter key with your cursor after the curly bracket. Notice it creates a closed set of brackets automatically. We’ll type our properties here:
   font-family: “Calibri”,sans-serif
   Here we’ve used Calibri, a web-safe font, and included sans-serif, a system font, as a fallback. Using fallbacks allows you to specify your ideal font, along with alternatives in case it’s not available for a specific user. The quotes are here to indicate how you should handle font names with spaces.
6. Click the X in the upper right corner of the editor to close it, and then save the page.

7. In the left hand resource pane select **Outline**. And then in the bottom of the outline of the objects on the page click “**JavaScript**” to bring up the java script editor associated with this page.



8. JavaScript can be a very powerful tool, and provides almost limitless customization options for your page. We'll add some pre-written JavaScript to the page. It's available in the Filter Loading Overlay .js file in the user workspace.

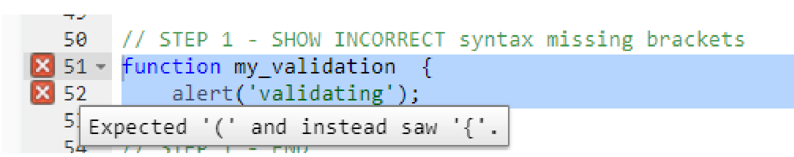
```
function showTimedMessage(messageText, duration = 5000) {
// 1. Create the new element
const messageElement = document.createElement('div');

// 2. Set its content and style
messageElement.textContent = messageText;
messageElement.style.position = 'fixed';
// messageElement.style.top = '20px';
// messageElement.style.right = '20px';
messageElement.style.top = '50%'; // Puts the top edge of the element at the vertical center
messageElement.style.left = '50%'; // Puts the left edge of the element at the horizontal center
messageElement.style.transform = 'translate(-50%, -50%)'; // Moves the element back by half its own width and height
messageElement.style.backgroundColor = '#0b5730';
messageElement.style.color = 'white';
```

```
messageElement.style.fontSize = '32px';
messageElement.style.padding = '15px';
messageElement.style.borderRadius = '5px';
messageElement.style.zIndex = '1000';

// 3. Add the element to the document's body
document.body.appendChild(messageElement);

// 4. Set a timeout to remove the element
setTimeout(() => {
// Check if the element still exists before trying to remove it
if (document.body.contains(messageElement)) {
document.body.removeChild(messageElement);
}
}, duration);
}
```

9. To illustrate the JavaScript syntax checker we will add some incorrect JavaScript to this page. We will delete a bracket to create imbalanced parentheses.

tip	To comment, uncomment you can also right-click on the line(s) and select the Comment/Uncomment option to toggle back and forth.

Notice the interactive editor has identified this as an error. If you hover over the red section, you can see the details.



10. Now let's fix this syntax error by adding the bracket back.

Notice the red errors have gone away.

```
// STEP 2 - CORRECT syntax with brackets
function my_validation()  {
    alert('validating');
}
// STEP 2 - END
```

11. Let's exit the java script editor now by clicking the "x" in the upper right corner to close the JavaScript editor. Designer stays open, and our changes in the JavaScript editor remain in place.

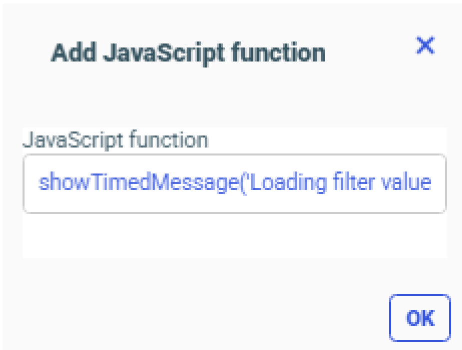
12. Now we want to update our interaction to enable this JavaScript function. **Right-click** on the **Product Category dropdown** filter we had previously created and select **Interactions – Edit**. This opens the interaction wizard.

13. Select "**Interaction1**" in the top (as a reminder - this interaction is to run a user selected visualization and display it in the top right panel). Note: it likely is selected by default. And Click on "**+Add Task**" at the bottom of the screen.

14. Select the **Execute JavaScript function** and click **OK**.

15. Click the **<Add JavaScript function>** and then type in **showTimedMessage('Loading filter values',5000);** in that text box and click "**OK**".

    This will show a message for 5 seconds (5000 milliseconds) with the text "Loading Filter Values". You can replace the quoted text to provide your own message, and change the length value from 5000 so another value in milliseconds to change how long the message appears for.



16. Now if you run the page, you should see when you make a selection from the drop down – Interactions – choose report, you will get a validation message that pops up.

17. This is the end of exercise 5.

RESTART	*If you want to see what the page should look like at this step, you can open the Ex 5 - 1 completed - Sales Analysis Page in your User "n" workspace. This includes the date fields being combined together along with the schedule button added to the page and the report selection dropdown to change what content is displayed in one of the containers. It also has a simple java script validation when selecting the dropdown.*