
Before you begin: Access Library in the Education sandbox

The Education sandbox is a shared, cloud-based environment to help you learn about and experiment with MicroStrategy Web and Library.

Use the Education sandbox to complete various report and dossier exercises. Complete the steps below to access the sandbox.

Access Library in the Education sandbox

- 1 In your browser, navigate to **education.microstrategy.com/MicroStrategy/servlet/mstrWeb**.
- 2 Log in to the sandbox with your **MicroStrategy Account** credentials.
Open the Tutorial project
- 3 The MicroStrategy landing page opens. Click the **MicroStrategy Tutorial** project.



MicroStrategy Tutorial

MicroStrategy Tutorial project and application set designed to illustrate the platform's rich functionality. The theme is an Electronics, Books, Movies and Music store. Employees, Inventory, Finance, Product Sales and Suppliers are analyzed.
Server name ENV-218880LAIOUSE1

The MicroStrategy Tutorial home page opens.

- 4 Click **Go to MicroStrategy Library**.
- 5 If prompted, enter your **MicroStrategy Account** credentials, and then click **Log in with Identity**.

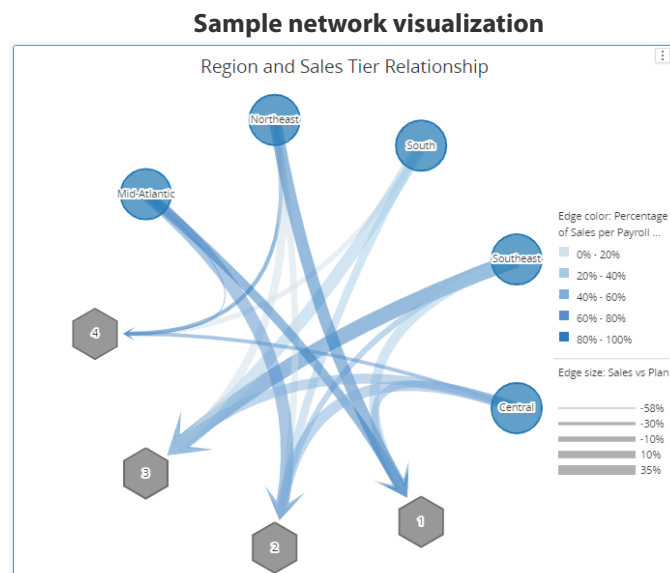
Your Library home page displays.

Exercise: Create a network visualization

As a result of your excellent work and analysis as a store manager, you have been promoted to Vice President. In this new position, you want to explore the relationship between regions and sales tiers based on multiple sales metrics. By identifying the most successful region and sales tier combinations, you know which combinations to further explore so that you might improve sales performance within less successful combinations.

As a reminder, the sales tiers are based on the general price of items a store sells (tier 1 represents stores that sell the most expensive items; tier 4 represents stores that sell the least expensive items).

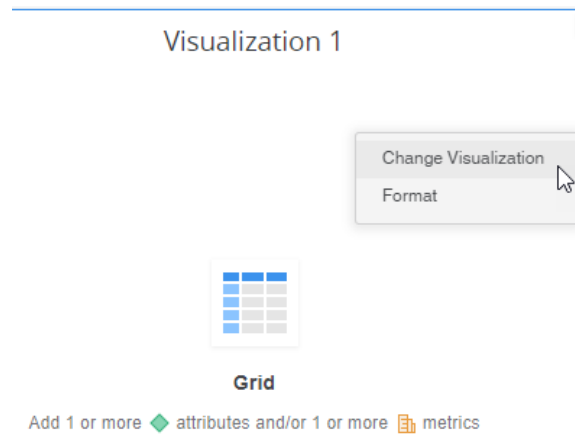
Create a network visualization to analyze which relationships generate the most sales. Your completed network visualization looks like the image below.



Create a network visualization

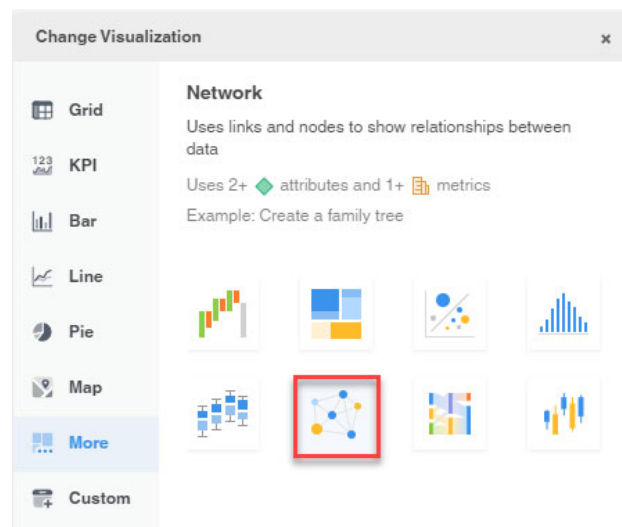
- 1 In the Education sandbox Library, open the **Visualization Types** dossier in Edit mode, if not already there. For a reminder on how to do this, see *Exercise: Access Library in the Education sandbox*, and *Exercise: Add the Visualization Types dossier to MicroStrategy Library*.
 - 2 In the Contents panel on the left, in the Relationships Between Variables chapter, click the **Network Visualization** page.
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- By default, a new page displays a blank grid visualization on the canvas. To change the visualization to a network visualization, right-click inside the visualization, and select **Change Visualization**.




The Change Visualization window opens, displaying the Visualization Gallery.

- In the Visualization Gallery, point to **More**, and then click the **Network** icon.



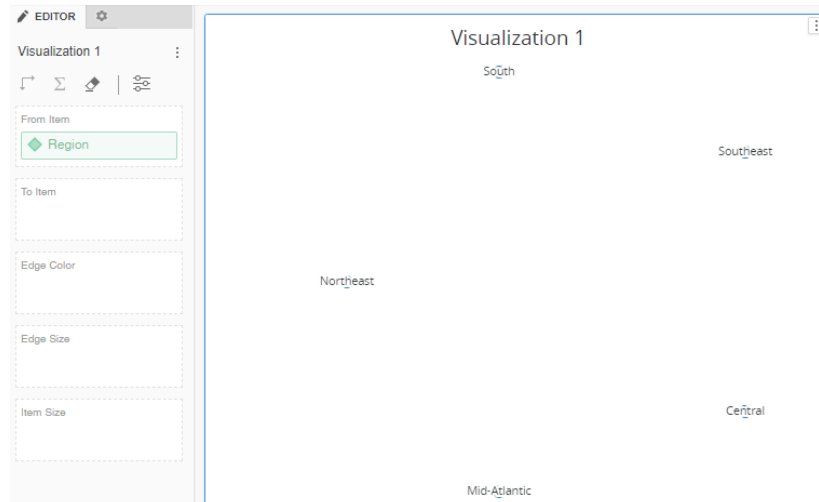
The dossier canvas displays a blank network visualization.

- The data you need for this analysis is stored in the Sales dataset. In the Datasets panel, click the arrow icon ► to the left of the **Sales** dataset to expand it, if it isn't already. The dataset's attributes and metrics display.
- To focus on the objects in the Sales dataset rather than the other datasets, collapse any other datasets that are expanded by clicking the arrow icon ▼ to the left of the dataset name.

7 Click the **Editor** icon  to display the Editor panel, if not already displayed.

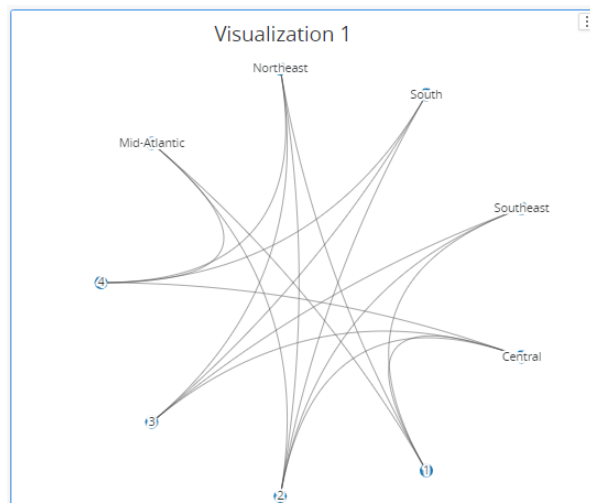
8 From the **Sales** dataset, double-click the **Region** attribute to add it to the **From Item** drop zone in the Editor panel.

A labeled circle is displayed for each region.



9 From the **Sales** dataset, double-click the **Sales Tier** attribute to add it to the **To Item** drop zone in the Editor panel.

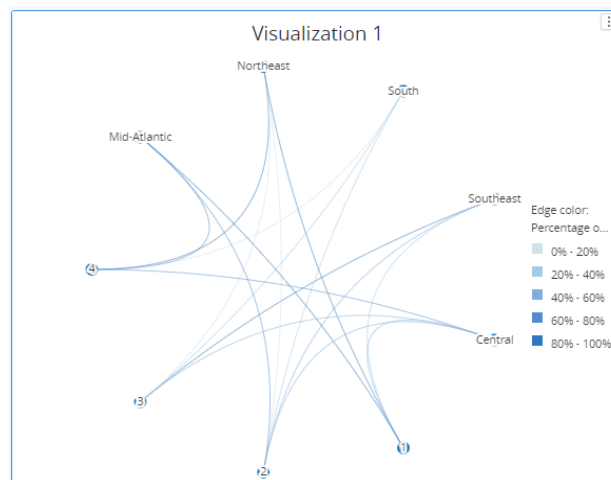
A labeled circle is displayed for each sales tier. The circles for regions and sales tiers are small; you adjust this in a later step.



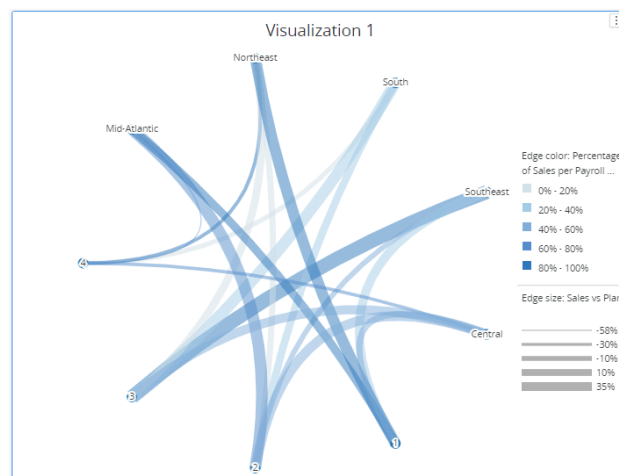
Lines (referred to as edges in the network visualization) are drawn from the objects in the From drop zone (in this case, regions), to items in the To Item drop zone (in this case, sales tiers), representing combinations of regions and sales tiers.

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- 10** Display information about the combinations of regions and sales tiers. Double-click the **Sales per Payroll Hour** metric in the **Sales** dataset to add it to the **Edge Color** drop zone. Each line (edge) in the visualization is automatically colored based on the percentage value of the Sales per Payroll Hour metric.
- 11** Right-click inside of the network visualization, and select **Show Legend** to better understand what the line color shades represent.

The legend displays to the right of the network visualization. Lower Sales per Payroll Hour values for a region/sales tier combination are displayed in lighter blue and higher values in darker blue.




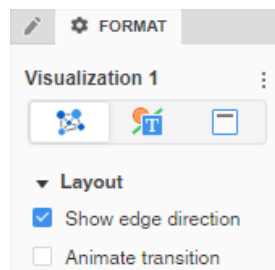
- 12** Drag **Sales vs Plan** to the **Edge Size** drop zone. The thickness of each line is determined by the value of the Sales vs. Plan metric. The thicker the line, the higher the Sales vs. Plan value is for that region/sales tier combination. The legend updates to identify this representation.



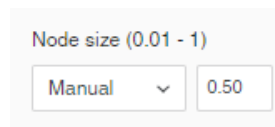
Format the network visualization

While this network visualization represents your data correctly and impactfully, you can improve it by making it easier to distinguish the To Items from the From Items.

- 1 Click the **Format** icon  to display the Format panel.
- 2 Expand **Layout**, and select the **Show Edge Direction** check box. In the network visualization, the edges end in arrows pointing to the To Items.



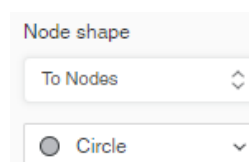
- 3 The circles for the items are hard to see behind the labels, so you want to make the circles bigger. Expand **Nodes**, and from the **Node Size** drop-down list, select **Manual**. Type **.5** in the box next to the drop-down list.






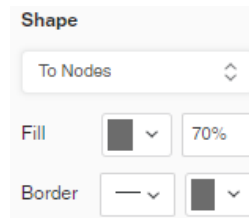
The circles are now large enough to be visible.



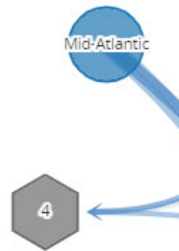
- 4 To further differentiate the To and From Items, display a different shape and color for the To Items.
 - a From the first **Node Shape** drop-down list, select **To Nodes**. The formatting that you select applies only to the To Items, not the From Items.



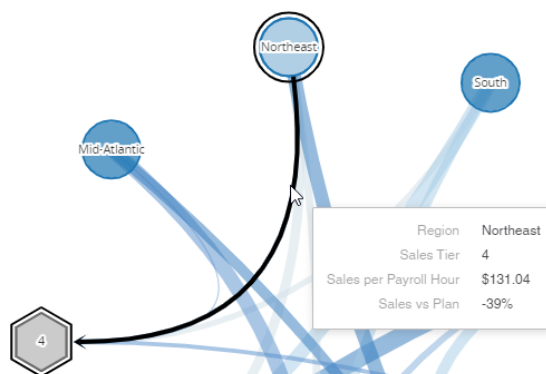
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- b From the second **Node Shape** drop-down list, select **Hexagon**.
 - c In the Format panel, click **Text and Form** . In the **Shape** area, ensure that **To Nodes** is selected in the first drop-down list.
 - d From the **Fill** color drop-down list, in the **Essential** area, select **Dark Gray #6C6C6C** .
 - e From the **Border** color drop-down list, in the **Essential** area, select **Dark Gray #6C6C6C** .



You can now distinguish between the To and From Items at a quick glance.



- 5 Hover over a line between a region and sales tier to display a tooltip with data details for the region/sales tier combination.



- 6 To rename the visualization, double-click the **Visualization 1** title, and type **Region and Sales Tier Relationship**. Your network visualization now looks like *Sample network visualization*.
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Analyze the network visualization

1 As you examine and interact with the network visualization, answer the following questions:

- Can you quickly understand the relationships between regions and sales tiers, and which combinations have the most successful sales?

The variables are displayed as colored nodes. The strength of each relationship is depicted by the connection line color and thickness. The legend indicates that the line color depicts percentage of sales per payroll hour, and the thickness depicts the value of the sales plan.

- How might you identify the strongest relationships for each region?

Hover over the desired region to display the sales tiers that have relationships with that region. To analyze detailed relationship information, move your cursor away from the region and along an edge (the line) to view the measurement values between the sales tier and each region.

- Is there any information that can clarify the visualization?

It is assumed that the analyst understands the physical area contained in each region and the characteristics of each sales tier. If this information is not widely understood in the organization, you can provide a link to more information, or include additional details in the tooltips.
