Mapping Guide

This tutorial will teach you how to create a subway map and publish it to the Internet using Jingjin.udb under SampleData\City\Jingjin.

Through this tutorial, you will get to know:

- ## How to create a map

Use the dataset in Jingjin.udb datasource under SuperMap iDesktop 9D installation directory\SampleData\City\Jingjin, to create a default map.

Opening the data

1. Launch SuperMap iDesktop 9D.
2. Open the "**Jingjin.smwu**" workspace in SampleData folder. After opening the workspace successfully, the untitled workspace in Workspace Manger will be changed to the name of the opened workspace, such as Jingjin; it will add one or more nodes in the datasources node, which correspond to the datasources which are saved in the workspace, here there is only Jingjin datasource.

   Note: the complete product package contains the sample data; the simplified version doesn't contain it.

Creates map

There are two methods to create a map.

1. 1: Double click the "BaseMap_R" dataset to open it on the map window, then drag the "subway", "substation", "ChangeStation" datasets to the opened map window one by one. The dataset will be displayed as the default style.
2. 2: Right click the Maps node to select New Map, and select the "BaseMap_R", "subway", "substation", "ChangeStation" datasets in the opened dialog and click OK, then the four datasets will be added to the new map window.

   Note: in the first method, to avoid the features overlap, users need to adjust the layer order, which is from top to down generally like this- Text>Point>Line>Region. In the second method, the layers will be displayed automatically according to that order.

   As shown below, it is the default map effect.

Fig: Map Effect
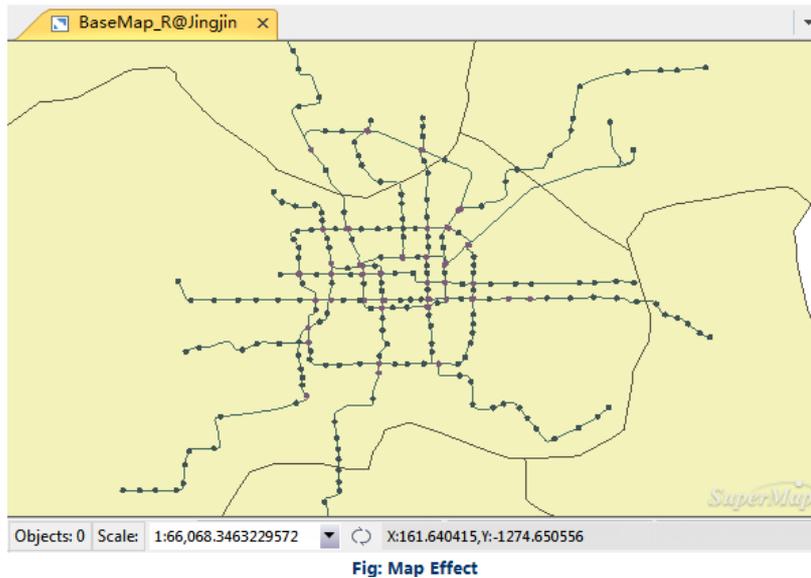
Related Topics

Symbolization

- ## Symbology for a map

It can display the attribute information of the map clearly with symbols. E.g., in the administrative layer of a cities, it can display the different population for each city with different size of circles. In addition, the shape, color and opacity property of the circle symbol can be defined.

## Set the style for the BaseMap_R layer

The BaseMap_R layer is the administrative data of the Jingjin region, In this example, we take it as the base map, set it to a single color.

1. Double click the "BaseMap_R@Jingjin" layer in layer manager to open the Fill Symbol Selector dialog.

   Note: when adding the dataset to the map window, it turns the Layer, and the name of the layer is dataset name@datasource name by default.

2. In Fill Symbol Selector:
   o Set Foreground to light grey;
   o Click Symbol to open the Fill Symbol Selector, set the line color to grey (R:127, G:127, B:127).

   Get the effect as follows.
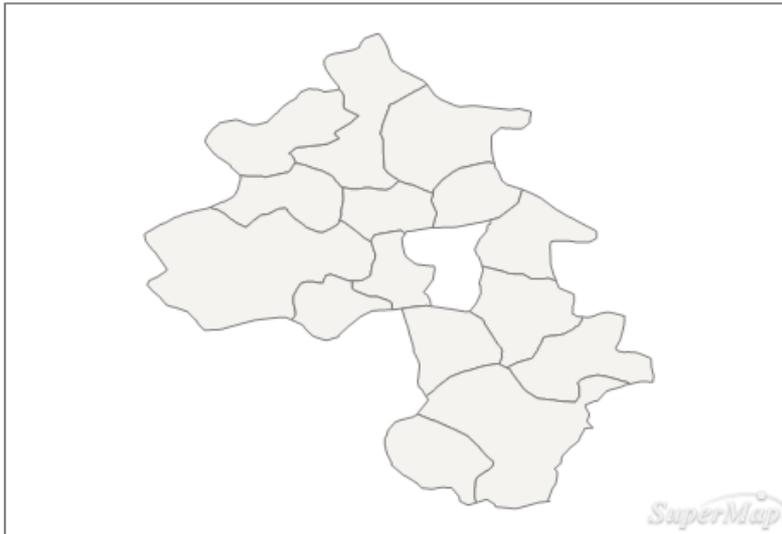
Fig: Set the style for the BaseMap_R layer

Set the style for the subway layer

The subway layer represents the subway map of Beijing in 2014. It will set different color for each subway line.

1. Select the "subway@Jingjin" layer in layer manager, right click to select Create Thematic Map..., to open the dialog.
2. Select Unique Values Map and Default, click OK to open a dialog.
3. The Thematic Map Manager dialog contains Properties and Advanced tabs, here we will introduce Properties.
   o Expression: set the Name field as expression.
   o Color Scheme: display and set the color of each unique value. The system will specify a default color scheme. After the expression is set, it will be rendered according to the color scheme. In this example, each subway line has a specified color, so we will not use the color scheme.
   o Modify style: when the default color can't meet the requirement, the style of each unique value can be modified. Take the style setting of subway 14 as example:

      1 select the Unique Value Subway 14, double click the Style column, to open the Line Style Selector dialog.

      2 select the style of subway 14.

      3 Click OK to set the style.
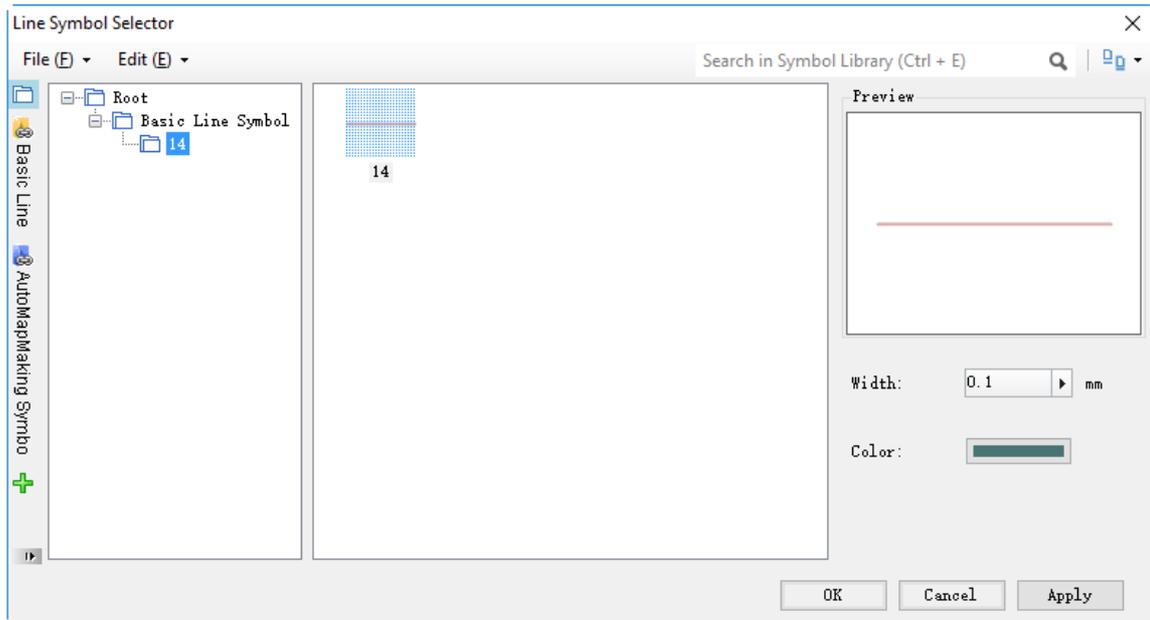
Fig: Line Style Selection

4 Set styles for other subway lines.

Note: the symbols are in the symbol library.

The unique thematic map effect of the subway layer is as follows:
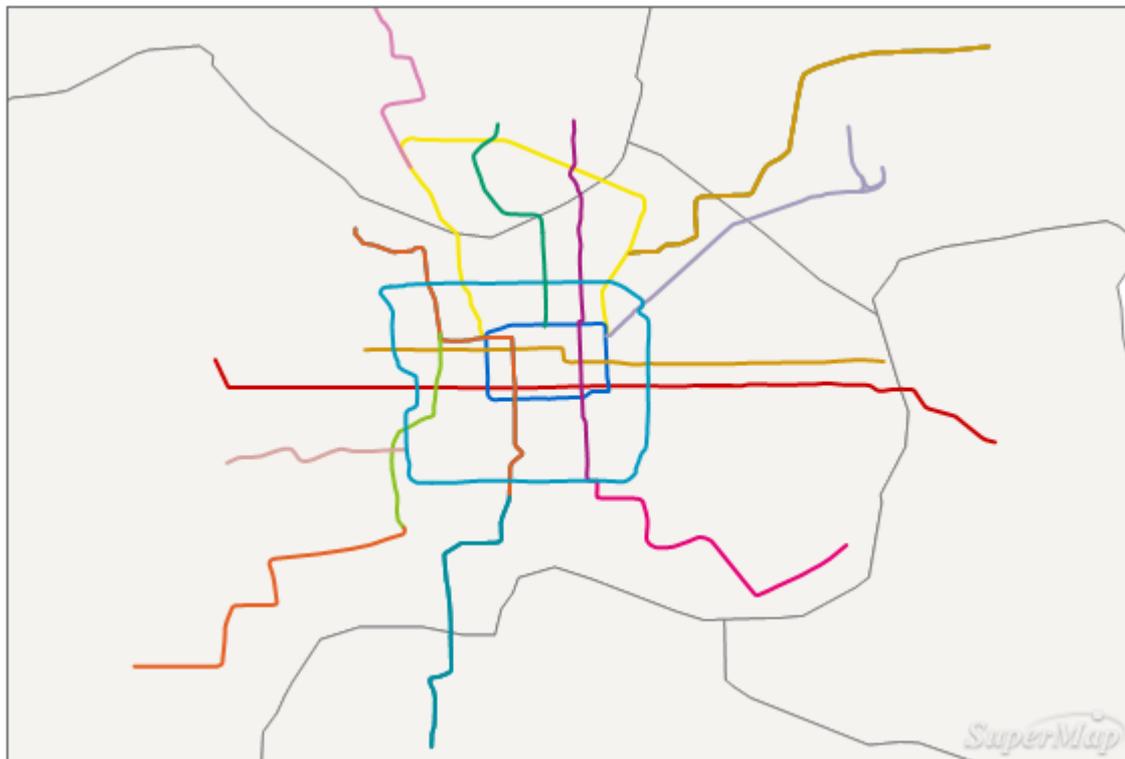
Fig: The unique thematic map effect of the subway layer

Set the style for the substation layer

The substation layer represents the stations in the Beijing subway. Each station will use the same symbol.

1. Double click the "substation@Jingjin" layer in layer manager to open the dialog.
2. Search the symbol in the symbol library.
3. Set Width and Height in Display Size to 0, that is, it will use the symbol size when making it.
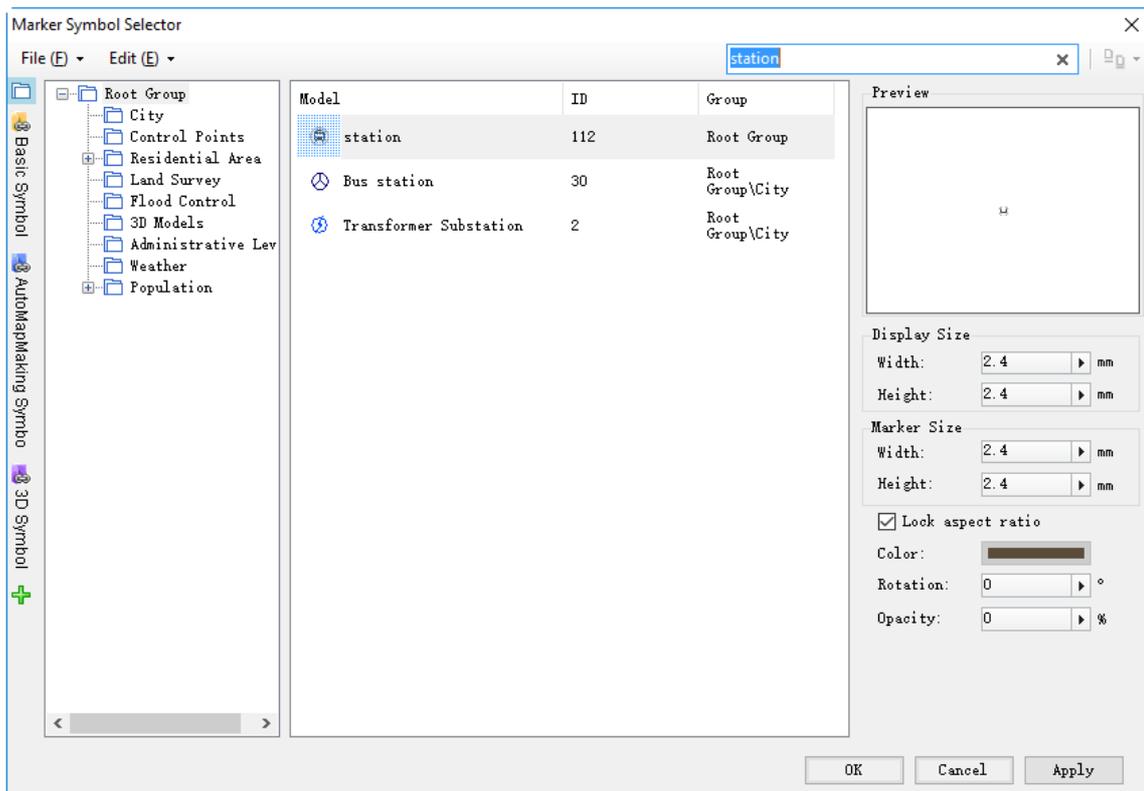
Fig: Marker Style Selection

4. Click OK to get the effect.

Add: 6/F, Building 107, No. A10, Jiuxianqiao North Road, Chaoyang District, Beijing, 100015, CHINA, 100015
E-mail: request@supermap.com   Website: www.supermap.com
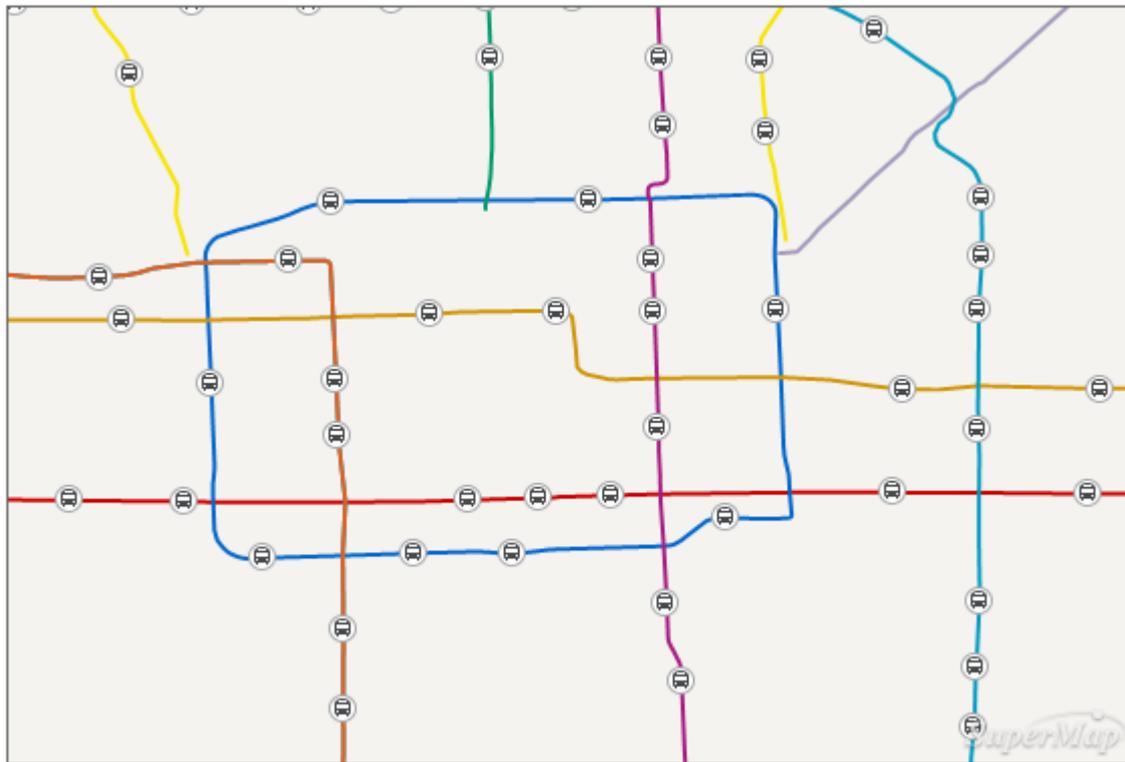
Fig: The Style of the substation Layer

Set the style for the ChangeStation layer

The ChangeStation layer represents the transit station of the subway, which will use the same symbol.

1. Double click the "ChangeStation@Jingjin" layer in layer manager to open the dialog.
2. Search the symbol.
3. Set Width and Height in Display Size to 0, that is, it will use the symbol size when making it.
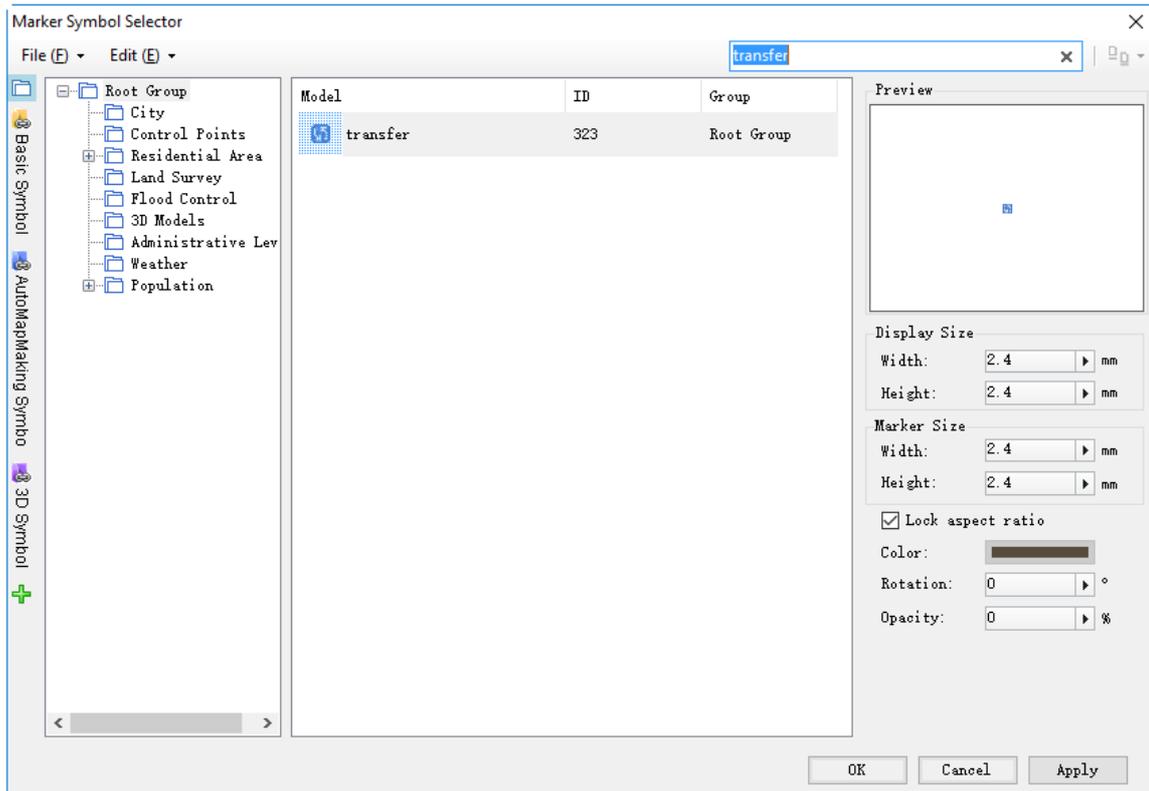
Fig: Marker Style Selection

4. lick OK to get the effect.
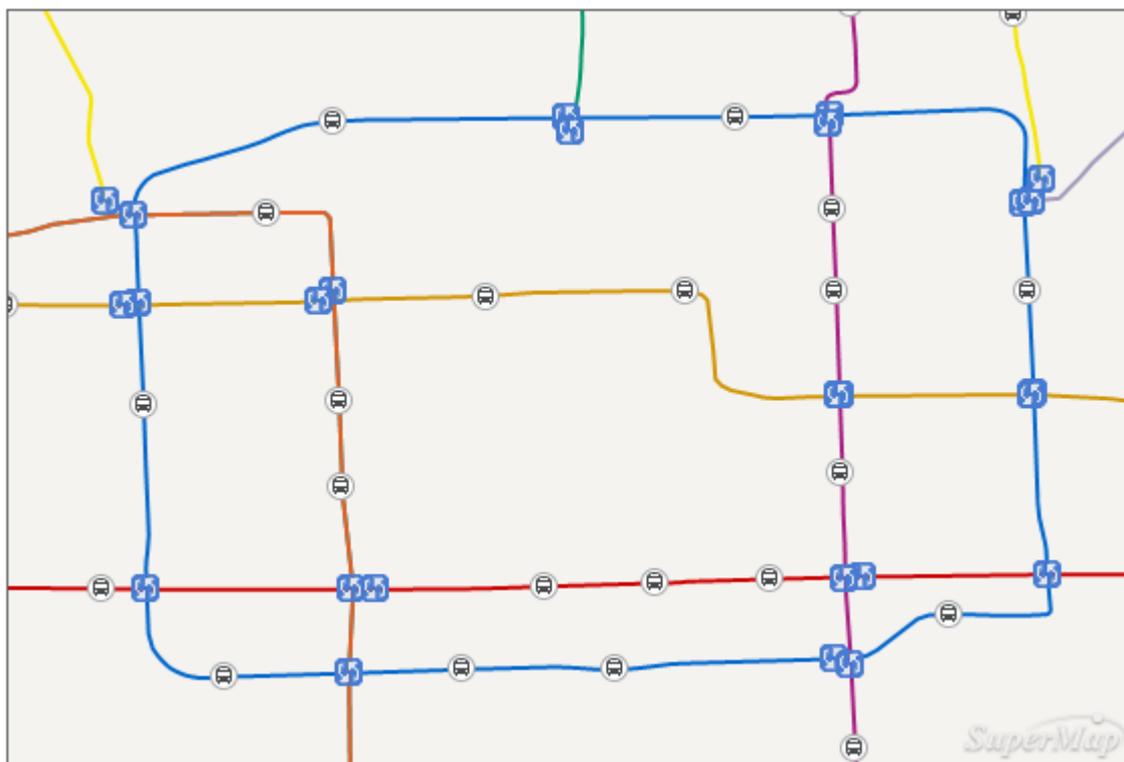
Fig: The Style of the ChangeStation Layer

Related Topics

<u>Labeling the Map</u>

- ## How to label a map

 You can better identify elements on the map if you label the map. From this part, we will introduce you how to label two layers, substation and ChangeStation.

Label the layer substation

The names of all stations are stored in the attribute table of substation dataset. You can choose a proper field for labeling.

1. Right click the layer "substation@Jingjin" in **Layer Manager**, select **Create Thematic Map**. The **Thematic Map Manager** pops up.
2. Select Label Map on the left panel of the Create Thematic Map window, and choose Uniform on the right. Click on OK. A Thematic Map Manager panel is displayed on the right of iDesktop.
3. The Thematic Map Manager includes panels of Properties, Style and Advanced. We introduce parameter settings in Properties and Style.
   - o In the **Properties** panel, set **Expression** to Station Name.
   - o In the **Styles** panel, set **Font** to Microsoft YaHei, **Alignment** Center Left, **Font Size** 11, and the other parameters as follows.

Add: 6/F, Building 107, No. A10, Jiuxianqiao North Road, Chaoyang District, Beijing, 100015, CHINA, 100015
E-mail: request@supermap.com   Website: www.supermap.com
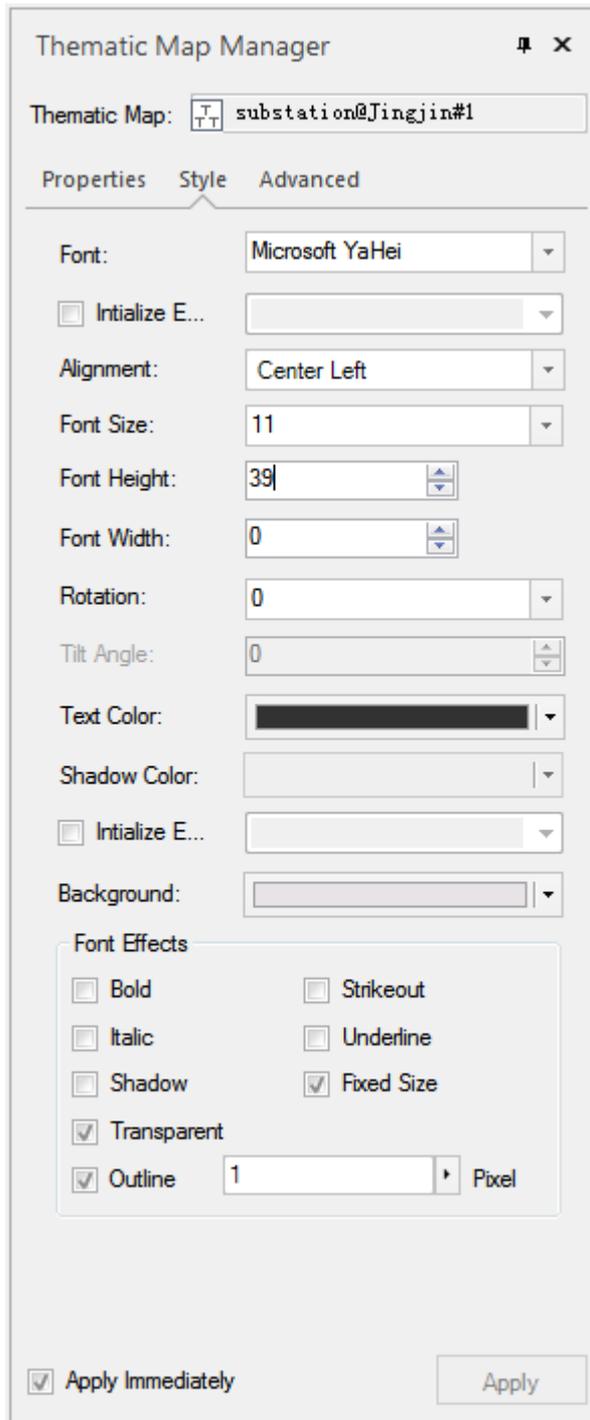
Fig. Label Style Settings

Label Layer ChangeStation

The names of the transfer stations are stored in the attribute table of ChangeStation dataset. You can choose a proper field for labeling.

The steps to label ChangeStation are the same to substation. Details are not repeated in this part.

The effect of labeling substation and ChangeStation:
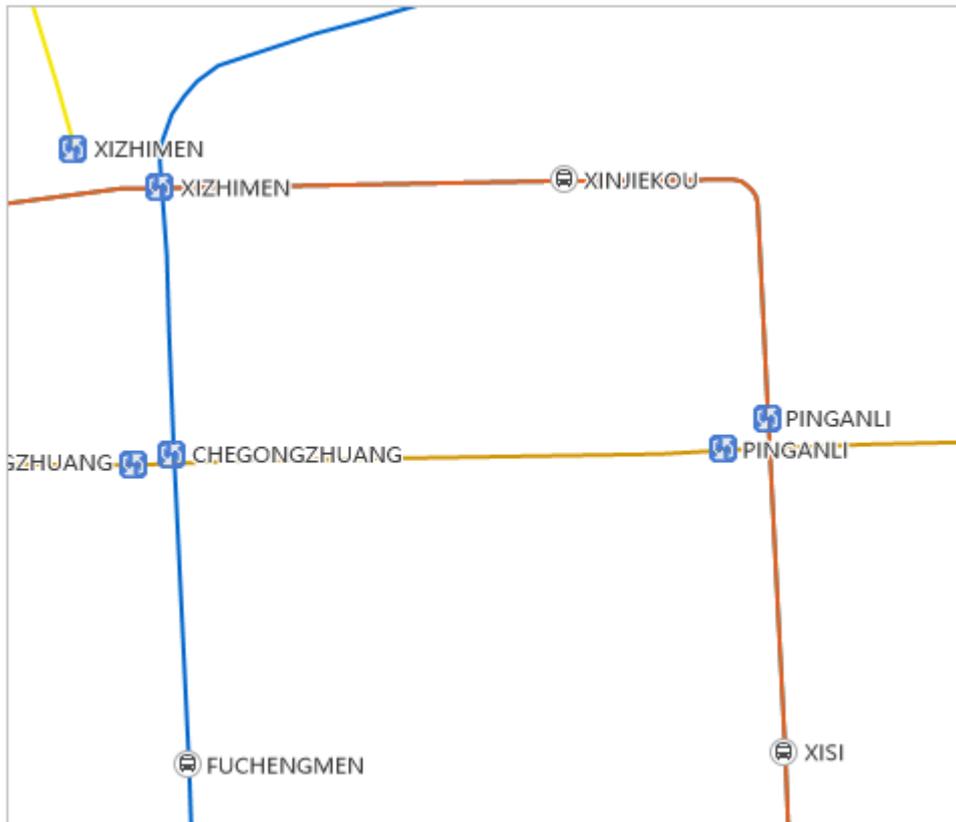
Fig. Labeling Results

After the labeling is completed, you click on the Start tab, find Workspace group, click on Save, name your map Beijing Subway Map, and save your map and workspace.

Related Topics

Publish Map

Create Layout

- How to layout a map

To print your map, you should create a layout which is composed of map(s) and elements (such as title, north arrow, legend, scale bar, etc.).

We take Beijing Railway Road Map as an example for making a layout. The steps are:

Create Layout

1. Right click **Layouts** in **Workspace Manager**, and choose New Layout. An **Untitled Layout** window shows on the right.
2. On Page Setup of Layouts tab, you can set the page orientation, size and margins. In this example, set Orientation to Landscape, Size to A4, and Margins to Normal. In **Page Settings**, you are allowed to set the number of horizontal and vertical pages, which is used for large scale map or large map bounds.

Insert Map

1. On Ribbon, choose **Object Operations** tab, find **Draw** group, and click on **Map**. Choose Rectangle from the drop-down list, and draw a rectangle on the layout window. A **Select Fill Map** box pops up. In this box, you can find all maps which are stored in your current workspace. Select one of maps. Here we choose Beijing Railway Map.
2. Select the map you place on the layout window to move its place. Right click on the map, choose **Focus Map**, so that you can zoom in, zoom out and pan the map. After you zoom the map into a proper size, you click on the Focus Map button again to unlock the map.

Fig. Add Map Into Layout

Insert Text

1. Select **Object Operations**, find **Draw** group, and click **Text**. Click on the layout window and input the text information.
2. Select the text you input, and move it to a proper location in the layout window.
3. Select the text information, right click to choose **Properties**. In the Properties window, you can set the text font, anchor alignment, font size, text color, etc. After you set the text style, the picture below is the result.

Fig. Add Text Into Layout

Insert Legend

The legend, scale, and north arrow are bound with the map. In order to insert those elements, you should select the map in the layout window first.

1. After you select the map in the layout window, you choose **Object Operations** tab, find **Draw** group, click **Legend**, and draw the legend on the map.
2. By default, the legend contains all layers. Select the legend, right click to choose **Ungroup**, so that the elements of the legend are splitted individually. You can delete or modify any individual element.
3. After you modify the elements of the legend, you select the rest all elements and right click to choose **Group**. The regrouped legend is shown as follows:
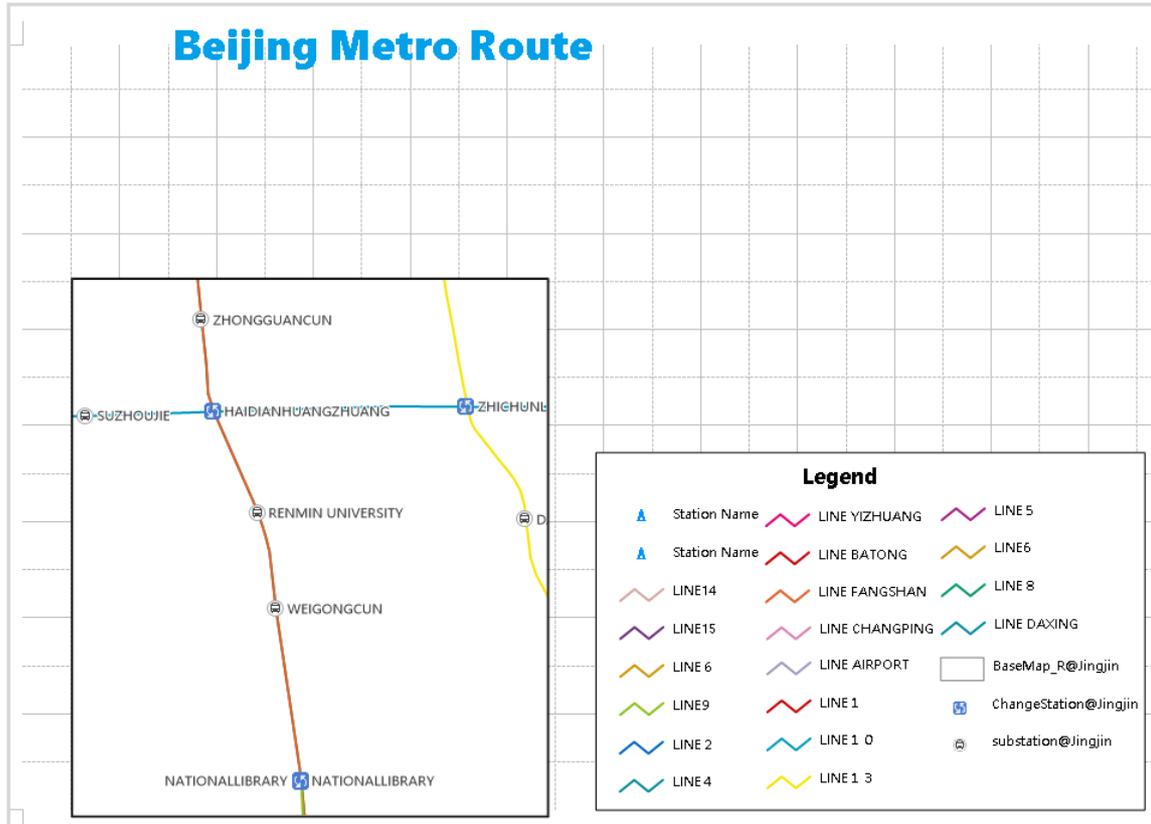
Fig. Add Legend Into Layout

Insert Other Layout Elements

The other layout elements, such as scale, north arrow, picture, table, etc., also can be added into the map if necessary. The steps are similar to the insert of map or text.

The map below is the initial layout result.
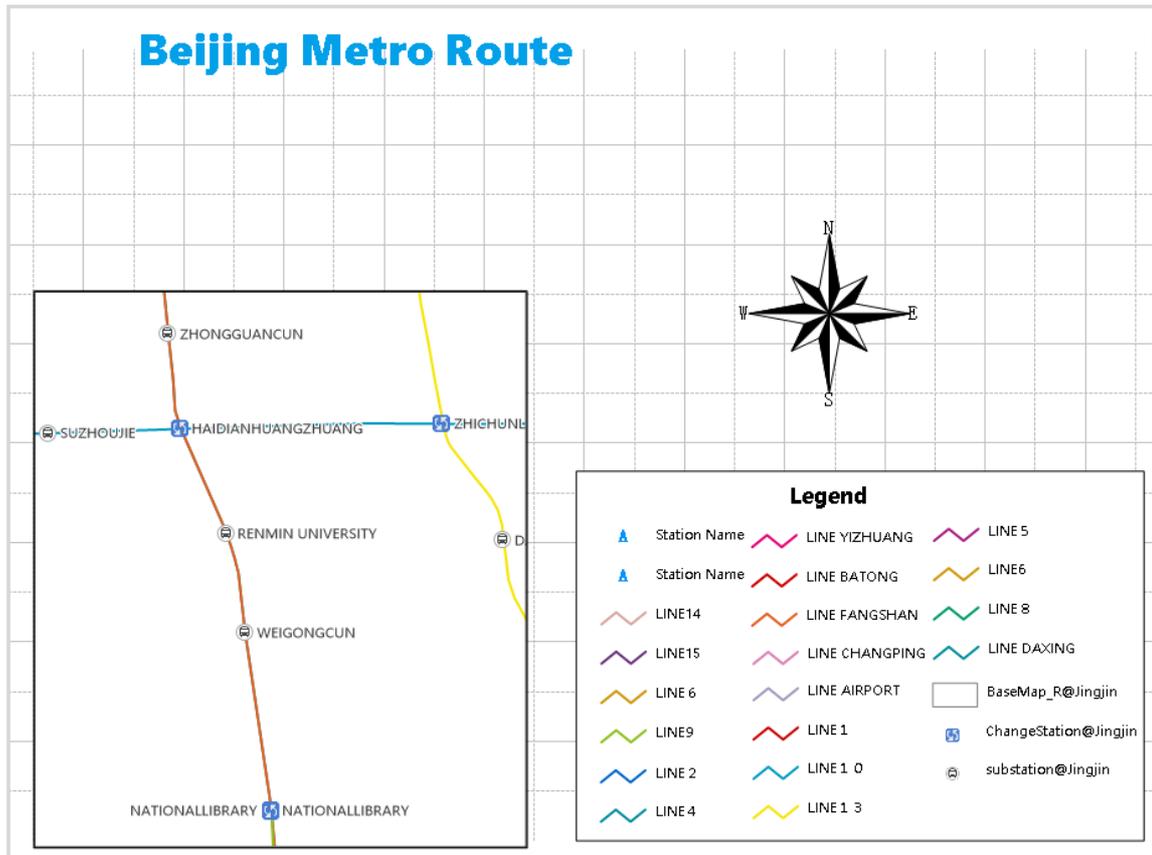
Fig. Layout

Layout Output

The layout you made can be saved as a picture or even printed out.

Right click on the layout window, and choose Export to Picture. The layout can be exported to common image formats (like JPG, PNG, BMP, TIFF) according to your real demands.

Go to **Layouts** tab, find **File** group, and click on **Print**. You can preview the layout and print current layout contents.

Related Topics

Layout And Print

- ## How to publish a map

You are allowed to publish data in the workspace to local or remote server. SuperMap iDesktop 9D Professional or Advanced edition can be used to publish

services. Before publishing services, you need to start iServer first and have administrator account.

To publish the map as a REST map service using iServer, you need to follow the steps below:

1. On the Online tab, in the Services group, click Publish Services.
2. In the Publish Services dialog box that display, set parameters.
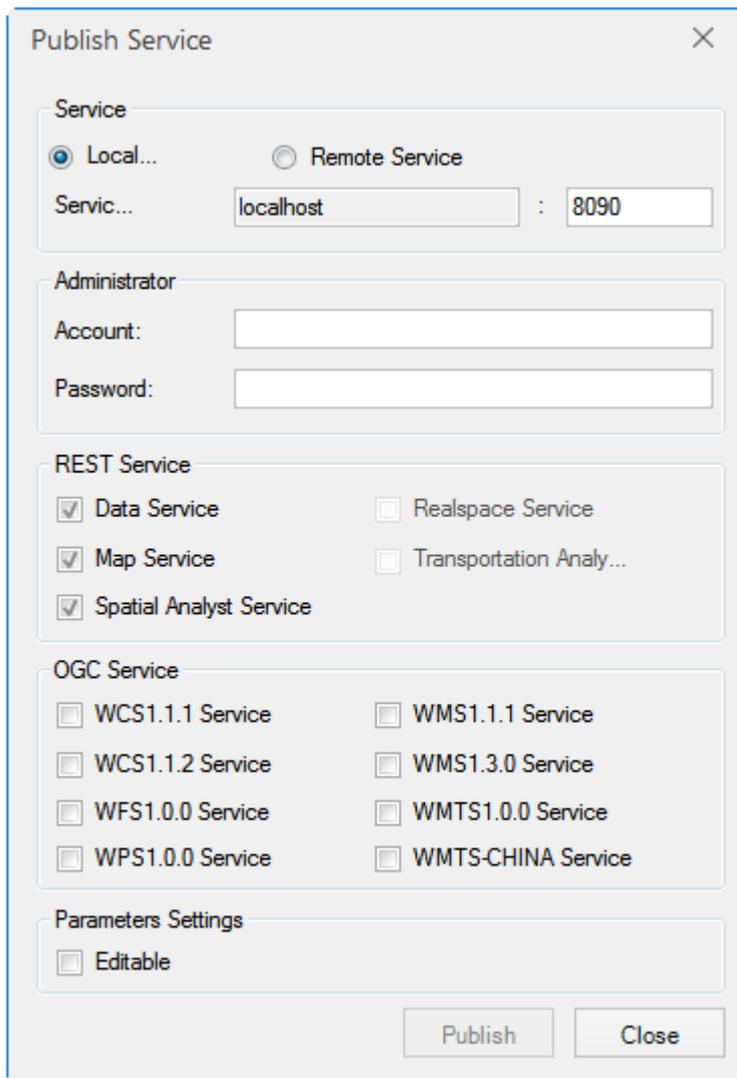
Fig. Publish services

3. ick Publish. The output window will provide message to show whether the publishing of the service is successful or not. If successful, the links of the services will be provided, you can copy the link and browse the link with the browser.

Fig. Output Window

Copy the link for REST map service and paste it in the browser.