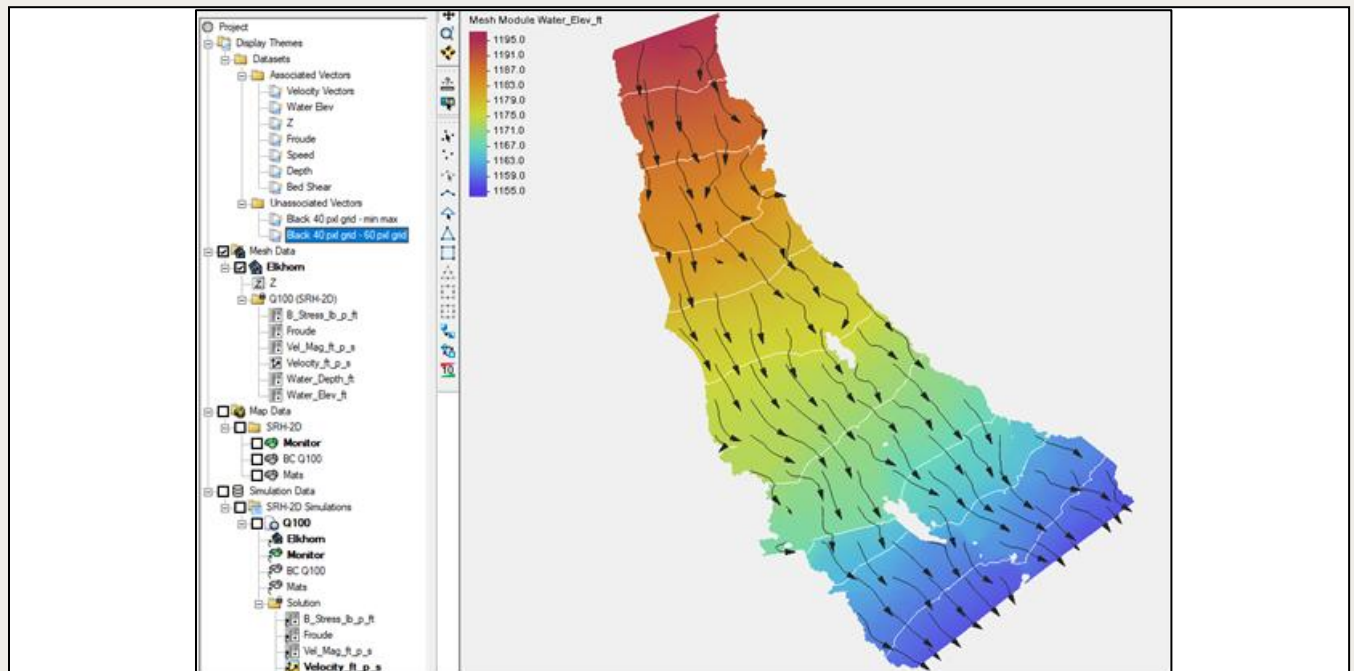




SMS 14.0 Tutorial

Vector Display Themes

Display Themes with Vectors

**Objectives**

Learn how to view and create display themes using vector options in SMS.

Prerequisite Tutorials

- Display Themes

Required Components

- SMS Core
- SRH-2D Model & Interface

Time

- 15–30 minutes

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1 Introduction

The “Display Themes” tutorial showed how to create and edit display themes that manage contour settings and views. This tutorial builds on that foundation by focusing on display themes that control vector display options.

This tutorial makes use of an SRH-2D model for a portion of the Elkhorn River near Freemont, Nebraska. The model has already been set-up and the solution data generated. Display themes will be used to review the solution data by changing the vector display.

To open the project:

1. Select **File | Open...** to bring up the *Open* dialog.
2. Select “All Files (*.*)” from the *Files of type* drop-down.
3. Browse to the *Display_Themes_Vectors\data files* folder and select “Elkhorn.sms”.
4. Click **Open** to import the project and exit the *Open* dialog.

The initial SMS project should appear like Figure 1.

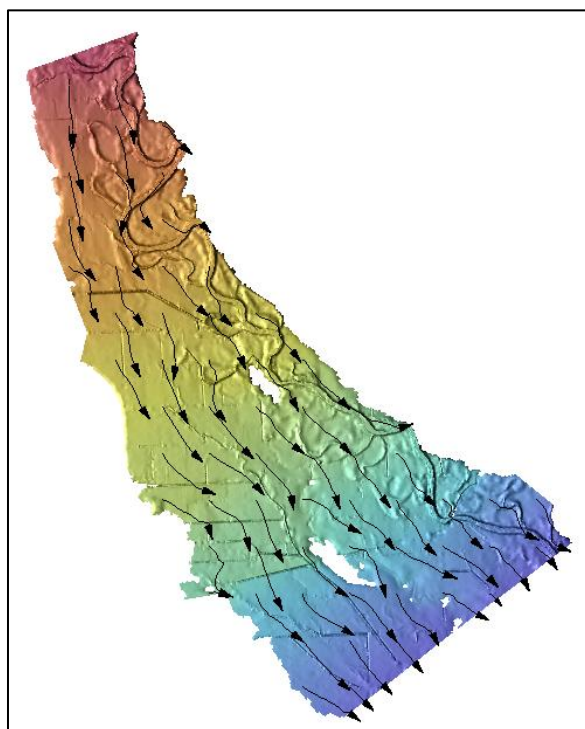


Figure 1 Initial project for the Elkhorn River in Nebraska

2 Saving Vector Options in a Display Theme

To create a new display theme to store the current vector options, do the following:

1. In a blank area of the Project Explorer, right-click and select the **New Display Theme...** command to open the *Display Theme Properties* dialog.
2. Turn off the *Auto name* option.
3. For the *Name* enter "Black arrows - 40 pixel grid".
4. In the *Type* section, select the "Vectors" option.
5. Click **OK** to close the *Display Theme Properties* dialog.

A  "Black arrows - 40 pixel grid" will appear in the Project Explorer in the  "Vectors" folder. Because the *Vectors* option is being used, only vector display options will be applied when the theme is used. This means that other themes, such as contour options, can be changed without modifying the settings influenced by this theme.

3 Specify New Vector Display Options

Now to set different vector display options, complete the following:

1. Select  "Elkhorn" to make the mesh module active.
2. Select the **Vector Options**  macro to bring up the *Vectors* tab of the *Display Options* dialog.
3. Set the *Display* option to "on a grid".
4. Set both the *X spacing* and *Y spacing* to "30".
5. Set *Data range* to "Range".
6. Set *Minimum* to "0.5", and *Maximum* to "8.5".
7. Set *Shaft length* to "Define min. and max. length".
8. Set *Minimum* to "10".
9. Set *Maximum* to "80".
10. Set *Line width* to "2".
11. Under *Color Range*, click the **Options...** button to open the *Choose color ramp* dialog.
12. In the *Solid Colors* section select the "White" color ramp.
13. Click **OK** to close the *Color Ramp Options* dialog.
14. Under the *Scaled to length*, set the (a) parameter to "15" and set the (b) parameter to "30".
15. In the *Type* radio group select the hollow arrow head option.
16. Click **OK** to close the *Display Options* dialog.

The project should be like Figure 2.

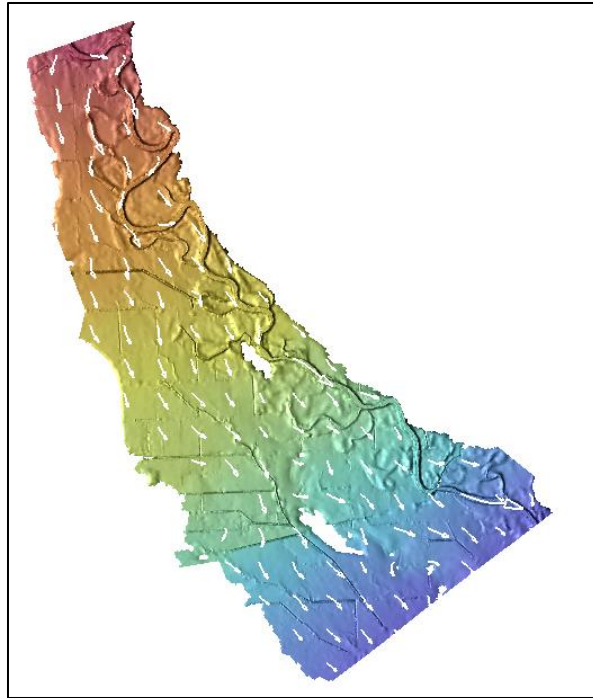


Figure 2 Project with new vector display options

4 Creating the Vector Display Theme

To create another vector display theme, do the following:

1. In a blank area of the Project Explorer, right-click and select the **New Display Theme...** command to open the *Display Theme Properties* dialog.
2. Turn off the *Auto name* option.
3. For the *Name* enter "Bold white arrows - 30 pixel grid".
4. In the *Type* section, select the "Vectors" option.
5. Click **OK** to close the *Display Theme Properties* dialog.

A display theme, "📁 Bold white arrows - 30 pixel grid" will appear in the Project Explorer in the "📁 Vectors" folder.

5 Switching Vector Display Themes

To apply a vector display, simply click on it.

1. Select the "📁 Black arrows - 40 pixel grid" display theme and note the display.
2. Zoom into the river channel.
3. Select the "📁 Bold white arrows – 30 pixel grid" display theme.

Notice how the display changes.

6 Conclusion

This concludes the “Vector Display Themes” tutorial. The following key concepts were discussed and demonstrated:

- Creating vector display themes
- Viewing vector display themes

Continue exploring display themes in SMS or exit the program.