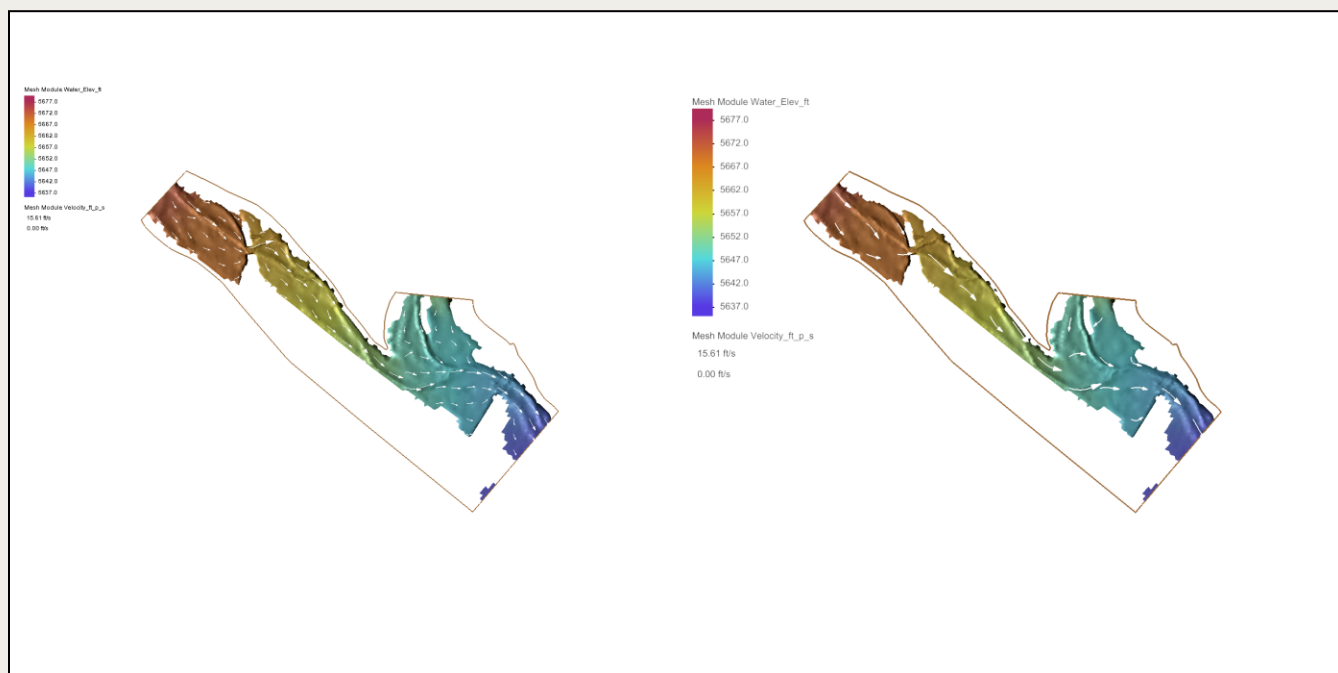




SMS 14.0 Tutorial

Screen Capture

Consistent Image Capture for Report Generation



Objectives

This tutorial demonstrates how to use the tools in SMS to capture consistent images from a simulation for inclusion in a report or presentation.

Prerequisite Tutorials

- Overview
- SMS Display Themes

Required Components

- SMS Core
- SRH-2D Model & Interface

Time

- 10–20 minutes

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1 Introduction

This tutorial demonstrates how to use the display theme and new *Set Graphics Window Resolution* features in SMS to capture consistent screen images for inclusion in reports or presentations.

Images in SMS can be captured through traditional screen shots, but this method often is at low resolution and lacks sufficient details for many applications. Options also exist to save out an image file with the Graphics Window display. This option is useful, but can be time consuming and involve additional file management. Using the *Set Graphics Window Resolution* workflow can speed up the process of gathering higher quality screen shots.

This workflow includes three total steps:

- Set the Graphics Window size.
- Define (or restore) a view theme.
- Issue the *Ctrl+C* command.

2 Getting Started

Start by importing the tutorial project file:

1. Launch the SMS application.
2. Select *File | Open...* to bring up the *Open* dialog.
3. Select "Project Files (*.sms)" from the *Files of type* drop-down.
4. Browse to the *data files* folder for this tutorial and select "Gila.sms".
5. Click **Open** to import the project and exit the *Open* dialog.

The project should appear similar to Figure 1. The project contains an SRH-2D simulation along with the solution data from the simulation run. Several display themes have been included.

6. Before continuing, check the preferences for screen capturing have been set.
7. Select *Edit | Preferences...* to bring up the *Preferences* dialog.
8. On the *General* tab, make certain *Show dialog before screen capture* is turned on.

With this option on, the *Copy To Clipboard* dialog will appear which allows setting the scale factor each time a screen shot is captured. This option can be turned off when using the default scale factor.

9. Click **OK** to close the *Preferences* dialog.

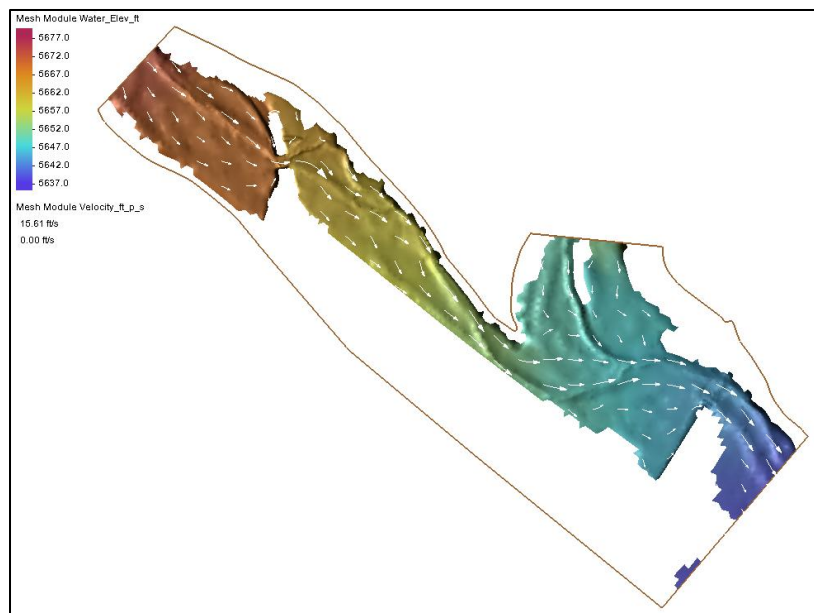


Figure 1 Initial project

3 Setting the Graphics Window Size

Start with using the *Graphics Window Size* function to designate the size of the screen shot:

1. Select the *Display | Set Graphics Window Size...* command to open up the *Graphics Window Size* dialog.

The dialog in Figure 2 appears.

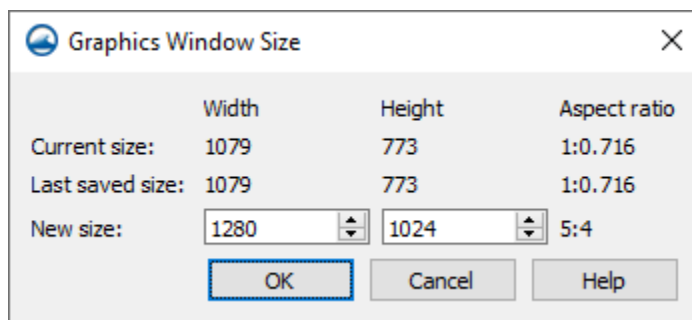


Figure 2 Graphics Window Size... dialog.

Review this dialog. It displays the *Current size*, the *Last saved size*, and an option to set a new size for the graphics window. It also displays the aspect ratio for each of these size combinations.

- The *Current size* comes from the active instance of SMS. SMS does not change the window size when the old project is opened.
 - The *Last saved size* comes from the project. When SMS saves a project, it saves the size of the graphics window whether it is maximized or not.
2. In the *New size* edit fields, enter the values “1280” for the *Width* and “1024” for the *Height*.

3. Click **OK** to close the *Graphics Window Size* dialog.

Note that the instance of SMS is resized to match the saved size. This occurred because the Graphics Window was maximized. If the Graphics Window is not maximized and a new size is set, the Graphics Window is sized independently from the SMS instance. This is also the means of restoring the **Last saved size** to an instance of SMS.

This example will save an image that is 1280 x 1024 pixels. This is one of the standard sizes with a 5:4 aspect ratio.

4 Creating Standard Sized Images

This section illustrates images created by the screen capture function.

4.1 Creating an Unscaled Image

First, create an unscaled version of the image. To do this:

1. Under  "Display Themes", turn on and select the  "Framed" theme.
2. Use the *Ctrl+C* keystroke sequence to open the *Copy To Clipboard* dialog.
3. Set the *Scale factor* to "1.0".
4. Click **OK** to close the *Copy To Clipboard* dialog.

An image of resolution 1280 x 1024 has been saved to the clipboard and can be pasted into a presentation or document. Feel free to paste this image into another application.

4.2 Creating a Scaled Image

This section illustrates the impacts of scaling an image as well as working when the graphics window is not maximized. To do this:

1. Click on the  **Restore Down** button in the upper right corner of SMS.
2. Select the *Display | Set Graphics Window Size...* command to open up the *Graphics Window Size* dialog.
3. In the *New size* edit fields, enter the values "640" for the *Width* and "512" for the *Height*.
4. Click **OK** to close the *Graphics Window Size* dialog.

Notice that the Graphics Window is resized to desired size.

5. Use the *Ctrl+C* keystroke sequence to open the *Copy To Clipboard* dialog.
6. Set the *Scale factor* to "2.0".
7. Click **OK** to close the *Copy To Clipboard* dialog.

The two images captured in this section appear side by side in Figure 3. Both images are 1280 x 1024. Also, both images reflect how the graphics window appeared in SMS. Both have identical representation of the mesh and water surface elevation contours. The differences consist of a different sized color legend and vector arrows (both length and spacing). The factors are based on screen resolution, so scaling the output makes these features larger.

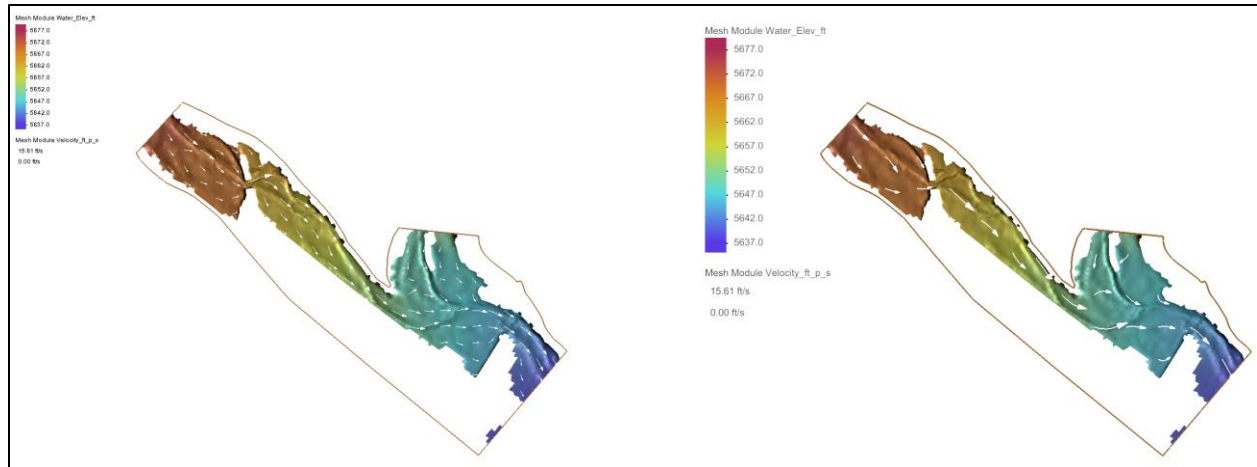


Figure 3 Unscaled vs scaled images.

5 Comments on Screen Size and Resolution in SMS

SMS includes a **Save Settings** command in the *File* menu. This command saves the window size and location. When SMS is launched on the computer these settings are restored. If the graphics window is not maximized, the position and size of the Graphics Window is also saved/restored.

When SMS is used to save a project, the Graphics Window is saved as part of that project. This includes whether the Graphics Window is maximized in SMS, as well as the size of that Graphics Window.

When SMS opens a project, these two states may cause conflict if the project Graphics Window is maximized. The behavior of SMS is to give preference to the current SMS session for Graphics Window size and the project for Graphics Window state.

This means that the project is displayed at the current Graphics Window resolution. As illustrated above, the resolution from the saved project can be restored using the state of the **Set Graphics Window Size...** command.

6 Conclusion

This concludes the “Screen Capture” tutorial. This represents a significant change in features from the previous version of SMS, so you are encouraged to experiment and provide feedback.