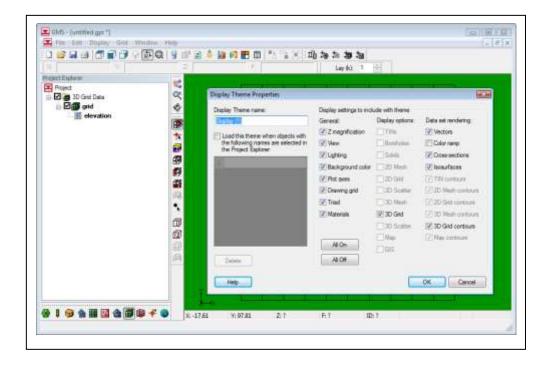


# GMS 10.1 Tutorial **Display Themes**

Quickly save and restore display options



## Objectives

This tutorial describes Display Themes. Display Themes are a powerful way to create and save display options for later use. Using Display Themes, the user can quickly change the look of the data.

## Prerequisite Tutorials

• Getting Started

# Required Components

• Grid module

Time5-10 minutes



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### 1 Introduction

GMS has many display options. Display options are used to change how data appears without actually changing the data. For example, it is possible to change the colors of the Feature Objects—the points, arcs, and polygons.

Display Themes are a way to save the current display options so that the user can quickly return to them again. This tutorial will show how to create a theme and then save it so it can be loaded later.

## 2 Creating Display Themes

To get started, do the following:

- 1. Launch GMS.
- 2. If GMS is already running, select *File* / **New** to ensure that the program settings are restored to the default state.

#### 2.1 Create a 2D Grid

Do the following to create a 2D grid in order to see how it is affected by display themes:

- 1. Create a grid frame by right-clicking in the Project Explorer and selecting *New* / **Grid Frame**. A grid frame will appear in the Graphics Window.
- 2. Map it to a 2D grid by right-clicking on "Grid Frame" in the Project Explorer and selecting *Map To* / **2D Grid** to bring up the *Create Finite Difference Grid* dialog.
- 3. Click **OK** to accept the defaults, create the grid, and close the *Create Finite Difference Grid* dialog. A 2D grid will now be within the boundaries of the grid frame.

#### 2.2 Create a Default Display Theme

Do the following to create a new display theme:

- 1. Right-click on a blank space in the Project Explorer and select *New* / **Display Theme...** to bring up the *Display Theme Properties* dialog. This dialog will be covered in more detail below.
- 2. Enter "Default" in the *Display Theme name* field.
- 3. Click **OK** to close the *Display Theme Properties* dialog. A new entry for Display Themes will appear in the Project Explorer.

#### 2.3 Change the Display Options

Now do the following to change the display options and create another display theme:

- 1. Click **Display Options b** to bring up the *Display Options* dialog.
- 2. Below the list on the left, select "Green" from the *Background color* drop-down arrow button.
- 3. Enter "100" in the *Triad size* field.
- 4. Select "2D Grid Data" from the list on the left.
- 5. On the 2D Grid tab, select "Blue" from the Cell edges drop-down arrow button (Figure 1).

2D Grid	
Nodes       ▼         ✓ Cell edges       ▼         Color:       Auto         Cell faces       ■         Inactive cells       ■         Determine activity usi       ■         Data Set Activity       More         Grid boundary       ▼	Colors
Contours	Options Options

- Figure 1 Changing the display options
- 6. Select "Specified" from the *Color* drop-down below *Cell edges*.

7. Click **OK** to close the *Display Options* dialog. The background in the Graphics Window will now be green.

#### 2.4 Create the Display Theme

- 1. Right-click on a blank space in the Project Explorer and select *New* / **Display Theme...** to bring up the *Display Theme Properties* dialog.
- 2. Enter "Green background" in the *Display Theme name* field.
- 3. Click **OK** to close the *Display Theme Properties* dialog. A new entry for "Green background" will appear under Display Themes in the Project Explorer.
- 4. Select the "Default" theme in the Project Explorer.
- 5. Select the "Green background" theme in the Project Explorer. Clicking on a display theme changes the display options to whatever they were when that theme was created.

## **3** Theme Properties

The properties of any display theme can be edited. To edit the "Green background" theme, do the following:

1. Right-click on the "Green background" display theme and select **Properties...** to bring up the *Display Theme Properties* dialog (Figure 2).

The main section of the dialog lists the settings that are included with the theme. This can be used to create themes that only include specific settings. Settings can be toggled on or off as desired.

For example, do the following:

- 1. Uncheck the *Background color* option.
- 2. Click **OK** to close the *Display Theme Properties* dialog.
- 3. Switch between the "Default" and "Green background" display themes to see that the background color no longer changes, but the grid color and the triad still do.
- 4. Right-click on the "Green background" display theme and select **Properties...** to bring up the *Display Theme Properties* dialog.
- 5. Turn on the *Background color* option and click **OK**.

6. Switch between the "Default" and "Green background" display themes to see that the color now changes, and that it is still green for the "Green background" theme.

Display Theme name:	Display settings to include with theme		
Green background	General:	Display options:	Dataset rendering:
Load this theme when objects with the following names are selected in the Project Explorer:          1       2D Grid Data         Delete       Delete	Z magnification	TINs	Vectors
	View	Boreholes	Color ramp
	🔽 Lighting	Solids	Cross-sections
	Background color	2D Mesh	🔽 Isosurfaces
	🔽 Plot axes	2D Grid	TIN contours
	🔽 Drawing grid	2D Scatter	2D Scatter contours
	V Triad	🔲 3D Mesh	2D Mesh contours
	🔽 Materials	3D Grid	2D Grid contours
		3D Scatter	3D Scatter contours
		V Map	3D Mesh contours
	All On	GIS	3D Grid contours
	All Off	UGrid	Map contours
			UGrid contours

Figure 2 Display Theme Properties dialog

## 4 Updating Display Themes

To change the display options saved with a display theme, do the following:

- 1. Click on **Display Options** sto bring up the *Display Options* dialog.
- 2. Below the list on the left, select "Red" from the *Background color* drop-down arrow button.
- 3. Click **OK** to exit the *Display Options* dialog. The background will now be red.
- 4. Right-click on the "Green background" display theme and select **Update With Current Display**.
- 5. Switch between the "Default" and "Green background" display themes to see that the red background color is now associated with the "Green background" theme.

## 5 Automatically Loading Display Themes

Display themes can be loaded automatically when the user selects other objects (objects other than display themes) in the Project Explorer.

- 1. Select the "Default" display theme to restore the display options to the default values.
- 2. Right-click on the "Green background" display theme and select **Properties...** to bring up the *Display Theme Properties* dialog.
- 3. Toggle on *Load this theme when objects with the following names are selected in the Project Explorer.*
- 4. Enter "2D Grid Data" on line *1* of the list below that.
- 5. Click **OK** to close the *Display Theme Properties* dialog.
- 6. Click on the "1 2D Grid Data" folder in the Project Explorer. Notice that the "Green Background" theme (which is now red) was loaded.
- 7. Select the "Default" display theme to restore the display options to the default values.
- 8. Click on any other entry in the Project Explorer (including the "grid" below "2D Grid Data").

Notice that the "Green background" theme is only loaded when the user clicks on the "Green background" theme or on the "2D Grid Data" folder. The theme looks for the name of the item, not the type. For example, if a TIN was named "2D Grid Data," it would also trigger the "Green background" theme.

## 6 Conclusion

This concludes the "Display Themes" tutorial. Topics covered include using display themes to quickly save and restore display options, including just a subset of display options in a theme, and setting a theme to automatically load based on the name of an item in the Project Explorer.