

# GMS 10.4 Tutorial **Display Themes**

Quickly save and restore display options

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## Objectives

This tutorial describes display themes. Display themes are a powerful way to create and save display options for later use. Using display themes allows quickly changing the look of the data.

Getting Started

# Prerequisite Tutorials Required Components

Grid module

Time 5–10 minutes



1	Intro	oduction	.2				
2	Creating Display Themes						
	2.1	Creating a 2D Grid					
	2.2	Creating a Default Display Theme					
	2.3	Changing the Display Options					
	2.4	Creating the Display Theme					
3	Theme Properties4						
4							
5	5 Automatically Loading Display Themes						
6	Conclusion						

### 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 Creating 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 (Figure 1).

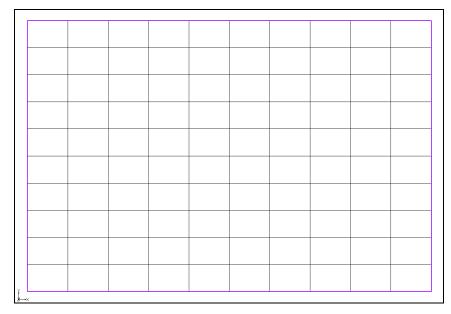


Figure 1 The 2D grid within the grid frame

#### 2.2 Creating 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 "Default" entry will appear under "Display Themes" in the Project Explorer.

#### 2.3 Changing the Display Options

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

- 1. Click **Display Options** T 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.

- 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 (Figure 2).

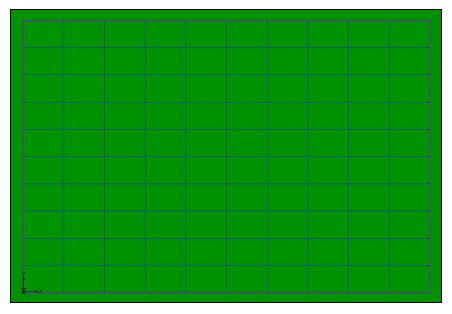


Figure 2 The background is now green and the grid lines are blue

#### 2.4 Creating 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 "D Green background" entry will appear under "D Display Themes" in the Project Explorer.

- 4. Select the "Default" theme in the Project Explorer.
- 5. Select the "<sup>C</sup> Green background" theme in the Project Explorer.

Selecting 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 "D Green background" theme, do the following:

 Right-click on the " Green background" display theme and select Properties... to bring up the *Display Theme Properties* dialog (Figure 3).

There are two sections of this dialog. The *Display Theme name* is listed on the left side. Below that is a checkbox that allows the theme to be loaded when specific Project Explorer objects are selected. This will be discussed later in the tutorial.

The *Display settings to include with theme* section lists general, display options, and dataset rendering settings that can be turned on or off as desired. This allows themes to include only the desired settings.

For example, do the following:

- 2. In the *General* column of the *Display settings to include with theme* section, turn off *Background color*.
- 3. Click **OK** to close the *Display Theme Properties* dialog.
- 4. Switch between the "Default" and "Default" Green background" themes to see that the background color no longer changes, but the grid color and the triad still do.
- 5. Right-click on the " Green background" display theme and select **Properties...** to bring up the *Display Theme Properties* dialog.
- 6. Turn on the *Background color* option and click **OK** to close the *Display Theme Properties* dialog.
- 7. Switch between the "Default" and "Default" Green background" themes to see that the background color now changes to green again when the "Default" Green background" theme is selected.

Display Theme Properties			×
Display Theme name:	Display settings to inclu	ude with theme	
Green Background	General:	Display options:	Dataset rendering:
Load this theme when objects with	Z magnification	TINs	Vectors
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the Project Explorer:	🔽 Lighting	Solids	Cross-sections
	Background color	2D Mesh	🔽 Isosurfaces
	Plot axes	🔽 2D Grid	✓ TIN contours
	Drawing grid	2D Scatter	2D Scatter contours
	🔽 Triad	3D Mesh	✓ 2D Mesh contours
	Materials	3D Grid	2D Grid contours
		3D Scatter	3D Scatter contours
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		GIS	✓ 3D Grid contours
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Help			OK Cancel

Figure 3 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** T to 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 " Green background" and select **Update With Current Display**.
- 5. Switch between "Default" and "Default" Green background" to see that the red background color is now associated with "Default" Green background".

### 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 "Default" to restore the display options to the default values.
- 2. Right-click on "D Green background" and select **Properties...** to bring up the *Display Theme Properties* dialog.
- 3. On the left side, turn 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. Select "• 2D Grid Data" in the Project Explorer.

Notice that the "Green Background" theme (which is now red) was loaded.

- 7. Select "Default" 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.