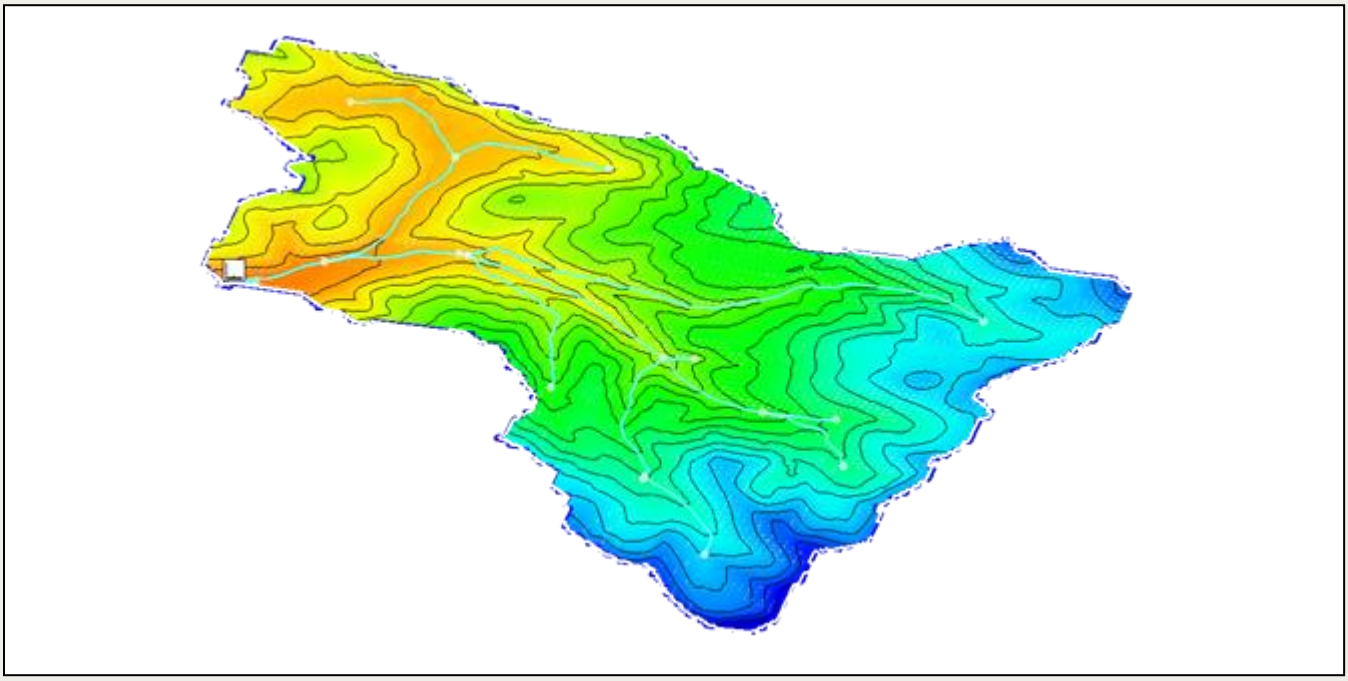
WMS 11.2 Tutorial

GSSHA Groups

Model land use changes using GSSHA



Objectives

This tutorial demonstrates how to save and run multiple projects as a GSSHA group file.

Prerequisite Tutorials

- Developing a GSSHA Model Using the Hydrologic Modeling Wizard

Required Components

- WMS Core
- GSSHA Model

Time

- 10–15 minutes

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1 Introduction

Sometimes, it is helpful to run GSSHA on multiple related projects in order to compare the results. WMS allows multiple GSSHA projects to be saved together as a single GSSHA Group Project (GGP) file. This tutorial demonstrates and discusses how to open multiple projects into one session within WMS, how to save multiple projects as a GSSHA group file, and how to run GSSHA on a group file.

2 Opening Multiple Projects

Begin by opening two existing GSSHA project files:

1. Open WMS, or click **New** to reset to the default settings and clear any existing data.
2. Switch to the **2-D Grid** module.
3. Select *GSSHA* | **Open Project File…** to bring up the *Open* dialog.
4. Browse to the *data files\input2* folder for this tutorial and select "GSSHA_Industrial.prj".
5. Click **Open** to import the project file and exit the *Open* dialog.

The first project will load into WMS.

6. Select *GSSHA* | **Open Project File…** to bring up the *Open* dialog.
7. Browse to the *data files\input1* folder for this tutorial and select "Residential_2_end.prj".
8. Click **Open** to import the project file and exit the *Open* dialog.
9. When asked if the land use table should be overwritten, click **OK**.
10. When asked if the soil type table should be overwritten, click **OK**.

Because both projects covered the same location, the land use and soil type tables could be overwritten. Make sure to open the projects in order so that the most accurate land use and soil type tables are imported last. Otherwise, click **Cancel** when asked to overwrite them.

The project should appear similar to Figure 1. Note that the display of cells and flow vectors may need to be turned off in the *Display Options* dialog.

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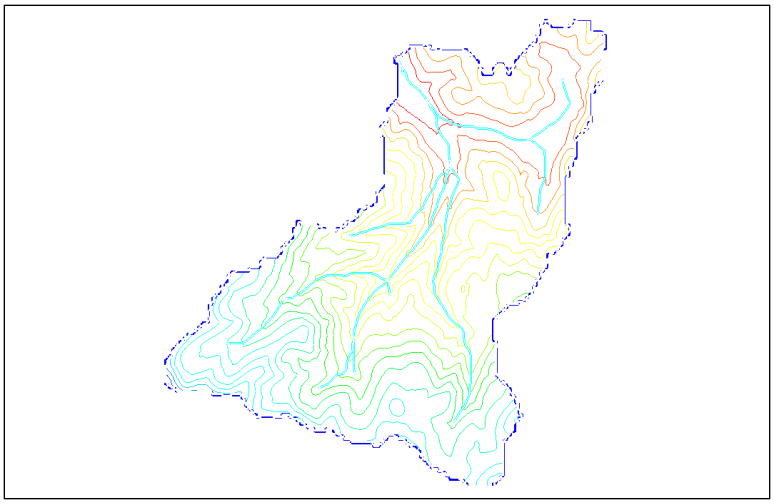

Figure 1 Initial project

3 Saving a GSSHA Group Project File

In many cases, saving a single project is sufficient. However, there are some cases where saving a set of projects as a single GSSHA Group Project (GGP) file can be useful.

To do that, do the following:

1. Select *GSSHA* | **Save Group…** to bring up the *Save GSSHA Group* dialog.
2. In the *Select projects to be saved* section, select both projects by placing a check in each box in the *Save* column.
3. In the *Group filename* section, click **Browse** to bring up the *Save* dialog.
4. Select "GSSHA Group File (*.ggp)" from the *Save as type* drop-down.
5. Enter "ParkCity.ggp" as the *File name*.
6. Click **Save** to close the *Save* dialog.
7. Click **OK** to close the *Save GSSHA Group* dialog and export the new group file.

4 Running GSSHA on a Group of Projects

GSSHA can be run on a group of projects by doing the following:

1. Select *GSSHA* | **Run GSSHA Group…** to bring up the *Save and Run GSSHA Group* dialog.
2. In the *Select projects to run* section, select both projects by placing a check in each box in the *Run* column.
3. In the *Group filename* section, click **Browse** to bring up the *Save* dialog.
4. Select "GSSHA Group File (*.ggp)" from the *Save as type* drop-down.
5. Enter "ParkCity_run.ggp" as the *File name*.
6. Click **Save** to close the *Save* dialog.

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There are two options below the Group filename:

- *Suppress screen printing* – Turning this on prevents the every event during the GSSHA run from appearing in the *Model Wrapper* dialog. Only the most important events and information will appear.
- *Read solutions on finish* – Turning this on imports the solution into WMS once GSSHA finishes running

7. Turn on *Suppress screen printing* and *Read solutions on finish*.
8. Click **OK** to close the *Save and Run GSSHA Group* dialog and bring up the Model Wrapper dialog.

When GSSHA finishes running on the first project, the Model Wrapper dialog will automatically close. A few moments later, another instance of the Model Wrapper dialog will appear as GSSHA runs on the second project. This one will also automatically close. WMS will then import the solutions from the GSSHA runs.

At this point, the visualization tools can be used to review the various solution datasets.

5 Conclusion

This concludes the “GSSHA Groups” tutorial. Feel free to continue experimenting, or exit the program.

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