

ISA

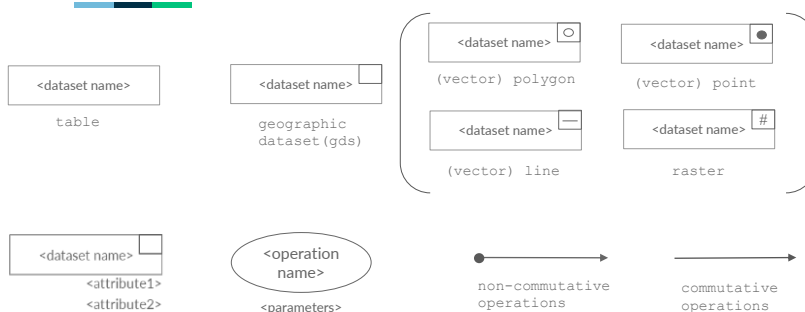
Geographic Information Systems 2026/2027

Lesson 09 – Revisiting Diagrammatic Representation

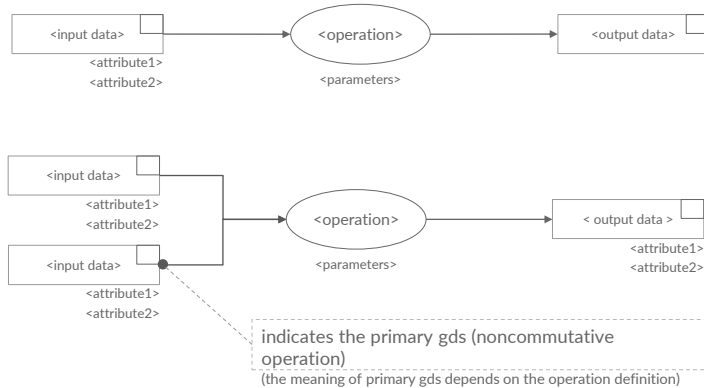
- Diagrammatic Representation solution for Ex05
- Revision of Model Builder/ Model Designer
- Resolution of Exercise 05 Model Builder/ Model Designer

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Diagrammatic Representation- Notation

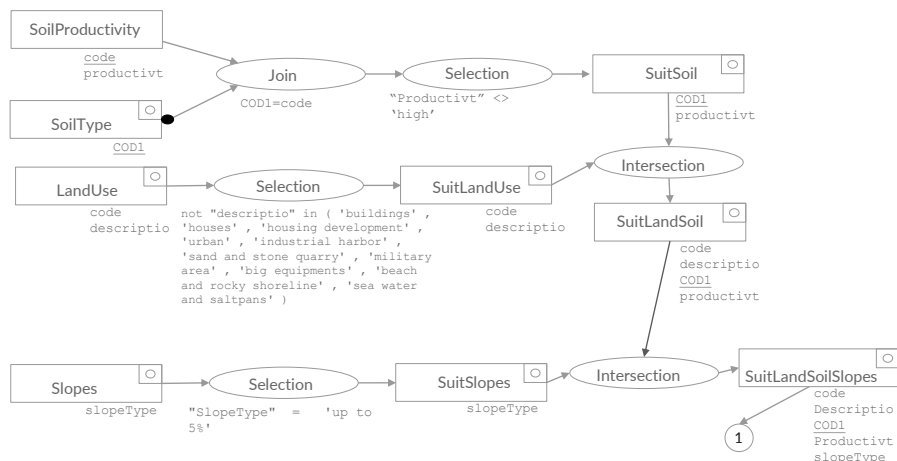


Diagrammatic Representation- Examples



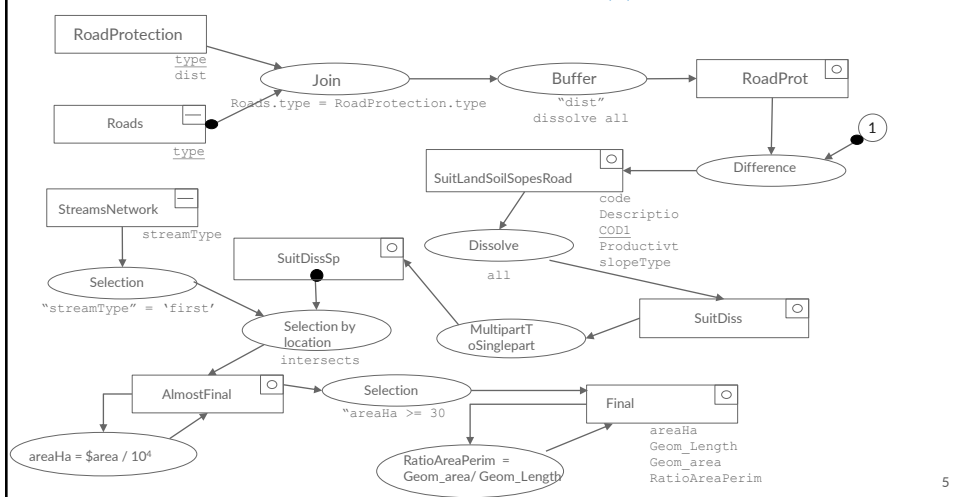
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Example (based on ex05_Zoning) (1)



4

Example (based on ex05_Zoning) (2)



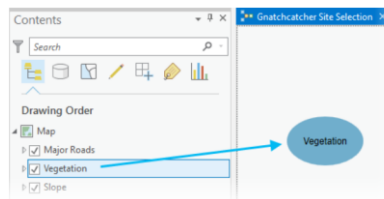
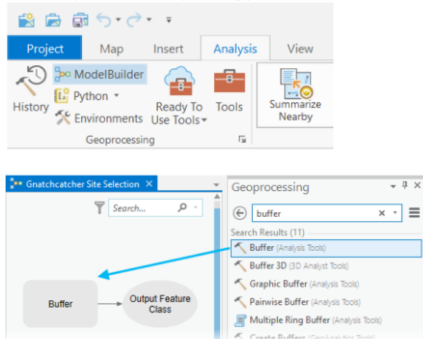
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Diagrammatic Representation

Questions?

Model Builder- ArcGIS Pro

On the **Analysis** tab, in the **Geoprocessing** group, click **ModelBuilder**.

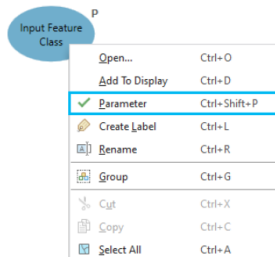
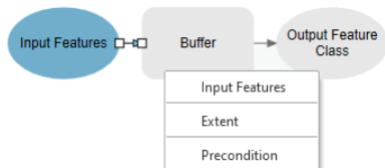


Drag-drop layers, datasets, and tools from the Contents, Catalogue pane, and Geoprocessing pane into the model

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Model Builder- ArcGIS Pro

To connect the data variables directly to a tool by **drawing a connection between them**, then choose the tool parameter to which to connect the variable. You can connect the output of one tool as input to another tool.

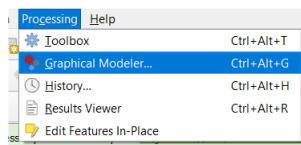
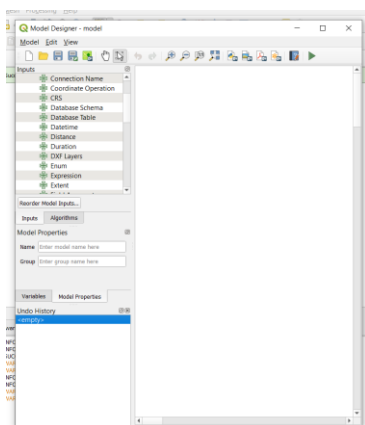


Set model parameters: Variables that are set as model parameters show as tool parameters when the model is run as a geoprocessing tool, allowing you to specify different data or values for your model to process than what was specified when the model was created.

Click the **Run** button  on the **ModelBuilder** tab to run the entire model.

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Model Designer-QGIS



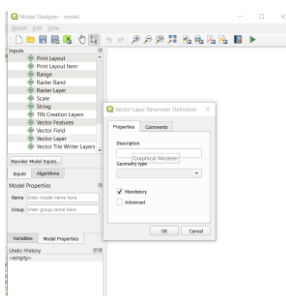
The Modeler window opens with:

- **Inputs Panel** (to define user inputs)
- **Algorithms Panel** (to add geoprocessing tools)
- **Canvas Area** (to build the model visually)

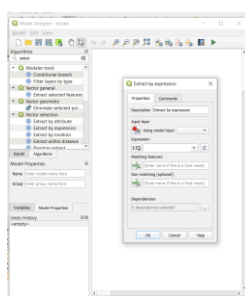
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Model Designer-QGIS

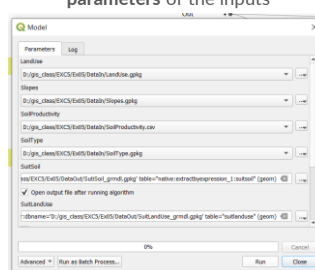
define the inputs for the model



define the algorithms



before run you need to set the parameters of the inputs

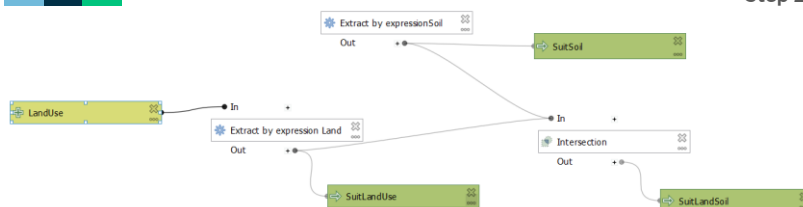


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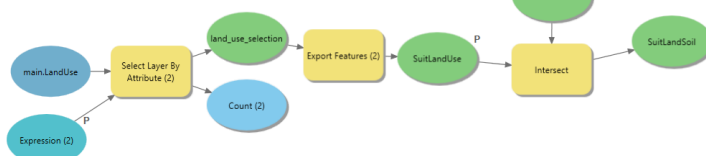
EXC 05: Model Designer/ Model Builder

Step 2

QGIS



ArcGIS

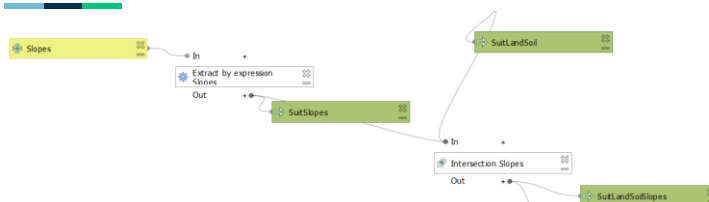


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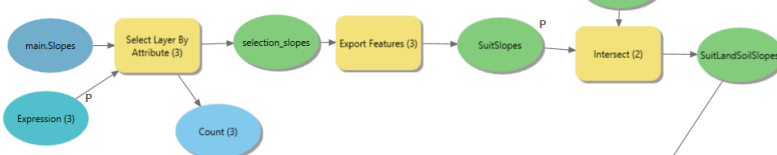
EXC 05: Model Designer/ Model Builder

Step 3

QGIS



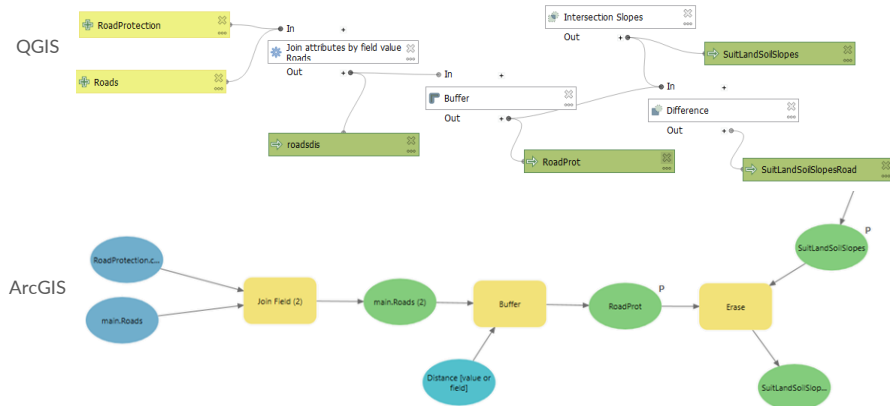
ArcGIS



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EXC 05: Model Designer/ Model Builder

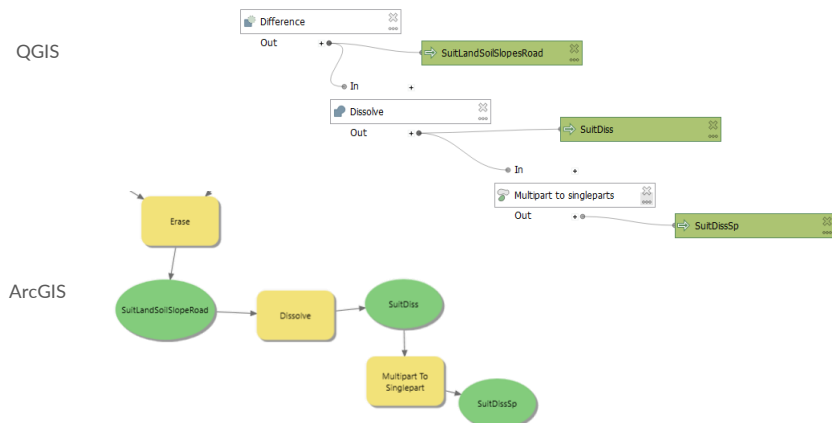
Step 4



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EXC 05: Model Designer/ Model Builder

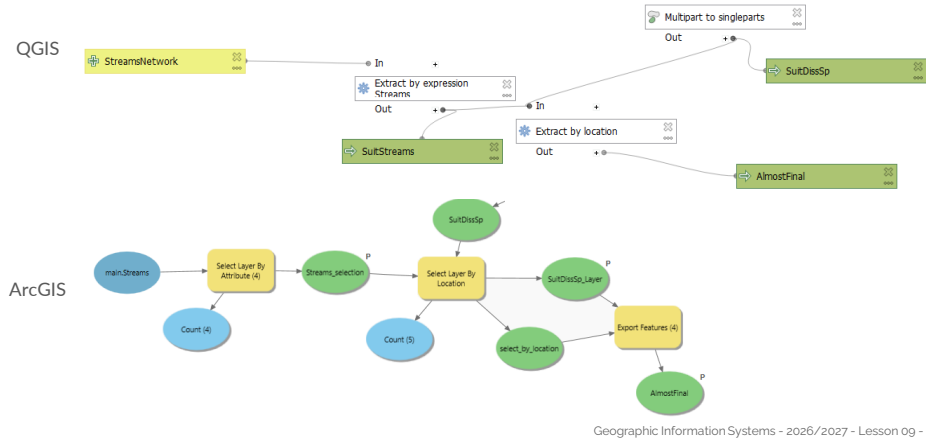
Step 5



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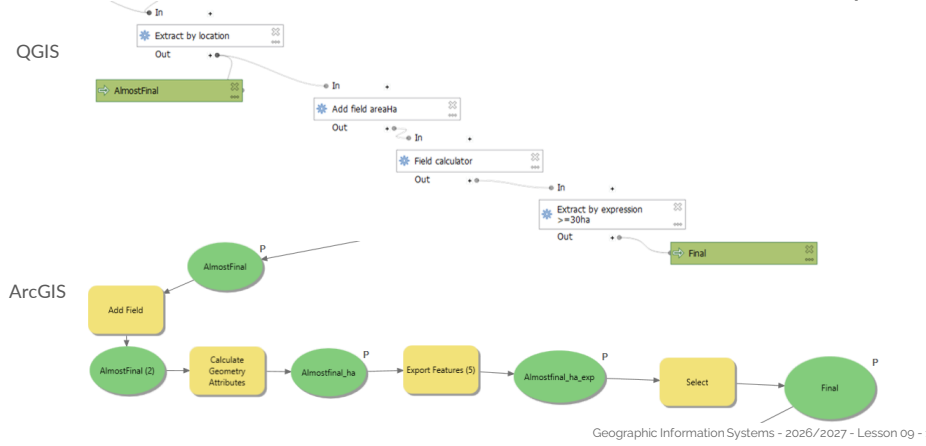
EXC 05: Model Designer/ Model Builder

Step 6



EXC 05: Model Designer/ Model Builder

Step 7

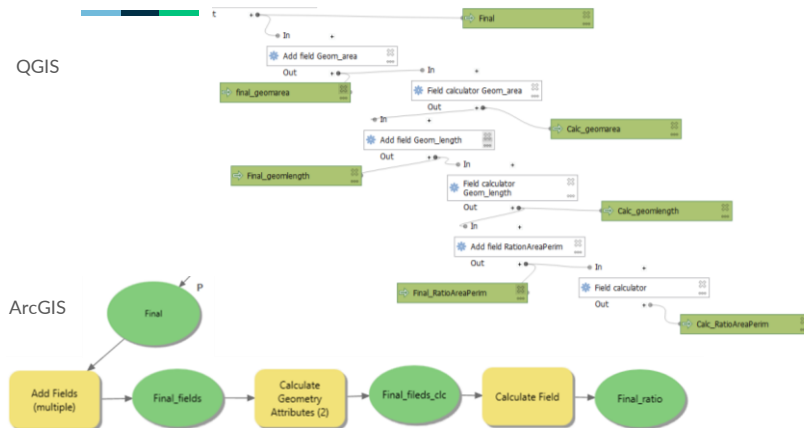


EXC 05: Model Designer/ Model Builder

Step 8

QGIS

ArcGIS



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Credits

The structure and content of the course, including most of the slides and exercises were developed by Professor Graça Abrantes (SIG 2021_2022), Professor Rui Figueira (SIG 2023_2024), and Angeliki Peponi (SIG 2024_2025)

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