

ArcGIS Pro: Using Modelbuilder with ArcGIS Pro

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Geoprocessing

The geoprocessing toolbox has close to 1000 tools. This session will introduce analysis and data management workflows within ArcGIS Pro by making use of Modelbuilder. Iterators, logical branching (if-else) and more will be used to streamline your workflows.

The ability to get something done; figure something out.

“**Analysis** transforms raw data into information or knowledge”

“**Spatial analysis** does this for geographic or spatial data”

Geoprocessing is a rich suite of tools for processing geographic data >>
analysis + data management + conversion + more

A Geoprocessing Framework

- Made up of...
 - Tools
 - ModelBuilder
 - Python
- Share by...
 - Create services
 - Packages
 - Zip it up
- Extended using add-ins (ProSDK)

ModelBuilder

**Tools +
ModelBuilder, Python**

**Search
Results / History
GP Options**

GP Framework

ModelBuilder

- A “visual programming language” that connects tools to create workflows.
- Find over 1000 tools in the Geoprocessing Pane and Analysis Ribbon
- Build, Run, modify and Re-run

Remember: a typical GP tool processes input data and produces an output

Evolution

- ArcMap
- 1.0 >
 - Grouping
- 2.1
 - Reporting
 - Searching
 - Logical (If / then / else)
- 2.2
 - Parse Path tool
 - Customize layout



**Make
ModelBuilder
Great Again!
(MMGA)**

ModelBuilder

**GP Options
Search
Results**

**Tools +
ModelBuilder, Python**

GP Framework

**Interface / Canvas
Parameters**

**Preconditions
Inline variables
Environments**

**Iterators
Nested models
If/Then/Else**

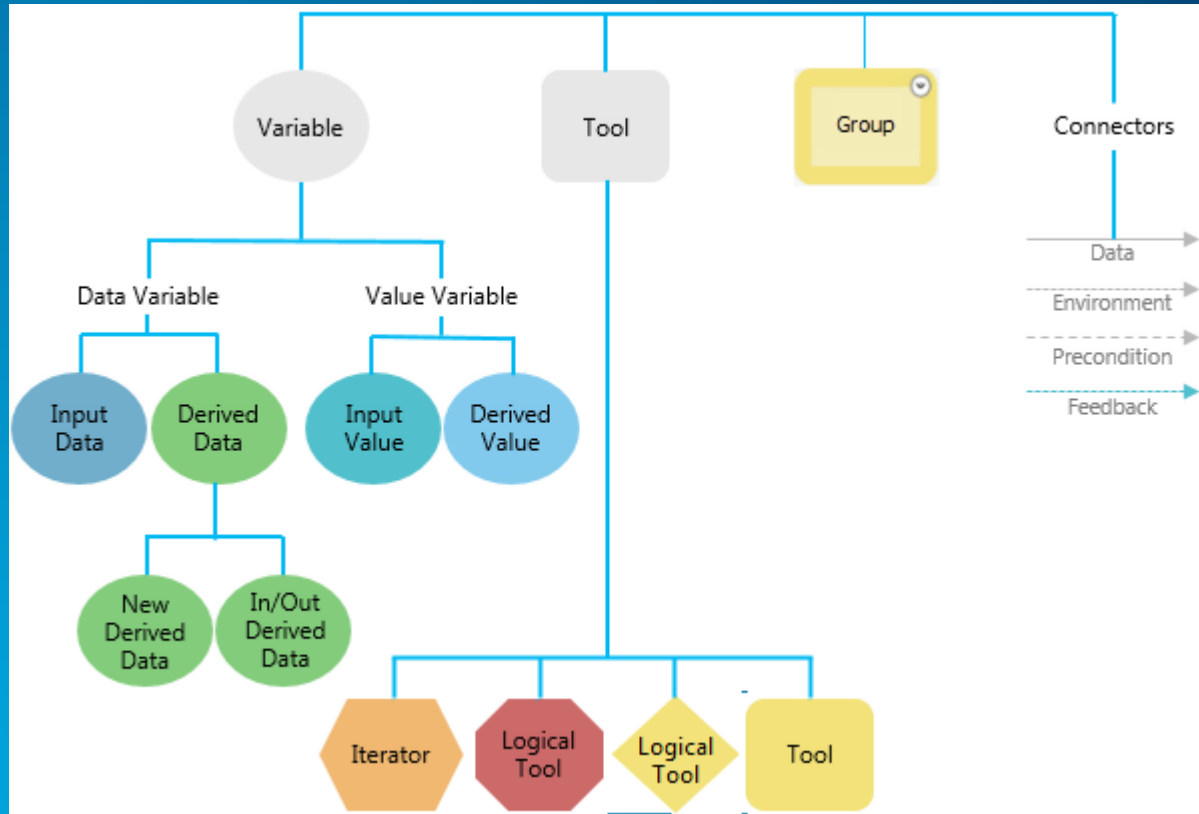
**Documentation
Reports**

**%scratchFolder%
%scratchGDB%
In_memory**

**FeatureSet
RecordSet**

**Sharing
Script Integration
Task schedule**

Model components



Demos

1. Find how many people live near an LRT station
 - MB layout, connecting, reporting, parameters
2. Find how many people live near an LRT station for each stage of construction
 - Iterator, in-line variables, model in a model, documentation, feature sets
3. Cleanse data
 - If / then / else, grouping
4. Share and automate execution
 - Sharing, task scheduler

ArcMap to Pro

- **No Intermediate data in Pro**
 - Intermediate data is cleaned up when run as a tool, persisted when run from the model window
- **No list/series in Pro (use iterators)**
- **No Export to graphic in Pro (yet?)**
- **No Logicals in ArcMap (If / then / else)**
- **Pro models cannot be opened in ArcMap (use save-as)**

<http://pro.arcgis.com/en/pro-app/help/analysis/geoprocessing/modelbuilder/modelbuilder-changes-in-arcgis-pro.htm>

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