

Writing Data

Writing Your Data

The final step in a workflow is to output the product of your hard work to a database, cloud-based platform or, most commonly, a file to share the analysis and insights you have created.

The Output Data Tool

To output data from a workflow, use the Output Data tool. Once an Output Data tool is connected to a workflow and configured, running a workflow creates tangible results outside of Designer. As a result, new files may be created, or existing files can be modified or overwritten.

Now that data from multiple tree surveys has been prepared, blended and analyzed, you are ready to output the results to a file.

Drag an Output tool from the Favorites tool palette and drop it onto the Canvas. The Output Data tool includes a single anchor, an input anchor. The Output Data tool will not output a data stream that can be used for further workflow development in Designer.

Common Output File Types

Use the Output Data tool to output three commonly used file types: a .CSV, an Excel Workbook and an Alteryx Database. Select a file type to output your results.

CSV

Use the Drop Down to navigate to a location where your output file will be saved. Name your file appropriately and save the file as a "Comma Delimited Text File". A CSV file will store all data values as string data types and any unsupported datatypes, such as spatial objects, will be dropped from the output. The Output Data tool's configuration window updates to display available options for customizing your output. Click on the highlighted configuration options to learn more.

Limit the number of rows that are output to a single file. Multiple files are created and named sequentially if the data contains more rows than the number specified.

Specify the delimiter to use to separate values in the output.

Select a code page for converting text upon output to a different format, such as UTF-8.

Excel

Navigate to a location where your output should be saved. Once you name the file, select "Microsoft Excel" and click "Save", you will be prompted to provide a sheet name. Accept the default or enter a more descriptive name in the dialog box. An Excel Workbook is limited in the number of rows as well as the types of data it can store. Spatial objects, for example, are not supported by this file type. Click on each of the highlighted options that are available in the Output Data tool's configuration window when writing to an Excel workbook.

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When writing to an Excel Workbook, select the output action that should occur. When writing out data for the first time, select "Create New Sheet". In subsequent runs of the workflow, you may need to update this option to modify an existing dataset or overwrite it altogether.

YXDB

An Alteryx database file, or .YXDB, is the most efficient file type for writing data, especially if the output will be used in other workflows Designer. Because it is compressed for maximum speed, stores values in the same column types and structures as Designer and has no limit to the number of rows it can store, an Alteryx database is an ideal file type for writing data from a workflow.

Use the dropdown menu to navigate to a location to save your file. Name the file and select "Alteryx Database" from the list of file types. Once this file is saved, the Output Data tool's configuration window will update. Click on the highlighted configuration options to learn more.

Limit the number of rows that are output to a single file. Multiple files are created and named sequentially if the data contains more rows than the number specified.

By default, a data stream's source and description data will be stored in the output's metadata. This can be important for understanding the origin of data if this file is used in other workflows.

Run the Workflow to Write

Running a workflow with a connected and configured Output Data tool creates a new data source or modifies existing data. Review the Messages in the Results window to verify that your output was correctly created, and even click the linked file path to open your output file.

Writing to Multiple Outputs

You are not limited to writing just a single file with the Output Data tool. Group data into separate files by leveraging the optional grouping capabilities at the

bottom of the Output Data tool's configuration window. Rather than output a single file that contains data on the trees surveyed from all five boroughs of New York City, you may want to output five output files to contain the data specific to each borough.

Select the option to “Take File/Table Name” from a column of data.

First, decide how values in a column will be incorporated into the file name: as a suffix, prefix, or complete substitution of the existing file name or file path.

Use the dropdown to select "Change File/Table Name" from the list of options.

Then, select the column of data that contains the values to use for grouping. To create one file per borough, select [Borough Name] from the list of options.

After re-running the workflow, five output files were created, each containing the data for a specific borough.