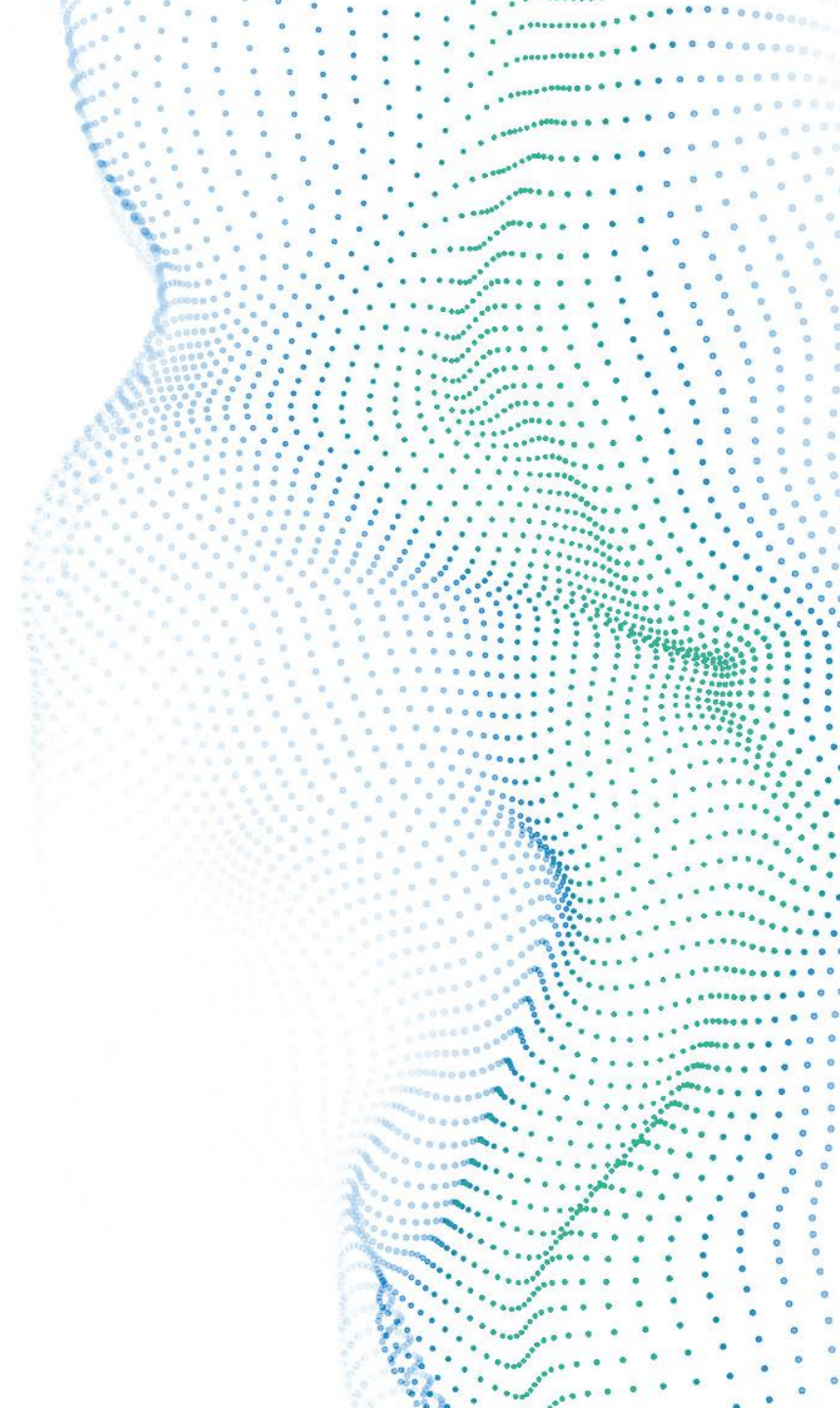




alteryx

# Alteryx Core Certification Training Series



# Training Series by Week

**1** Reading and Writing Data

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**2** Data Blending and Formatting

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**3** Data Preparation

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**4** Transforming and Parsing Data

---

**5** User Interface (UI), Documentation and Workflow Configuration

---

**6** Core Certification Exam Preparation

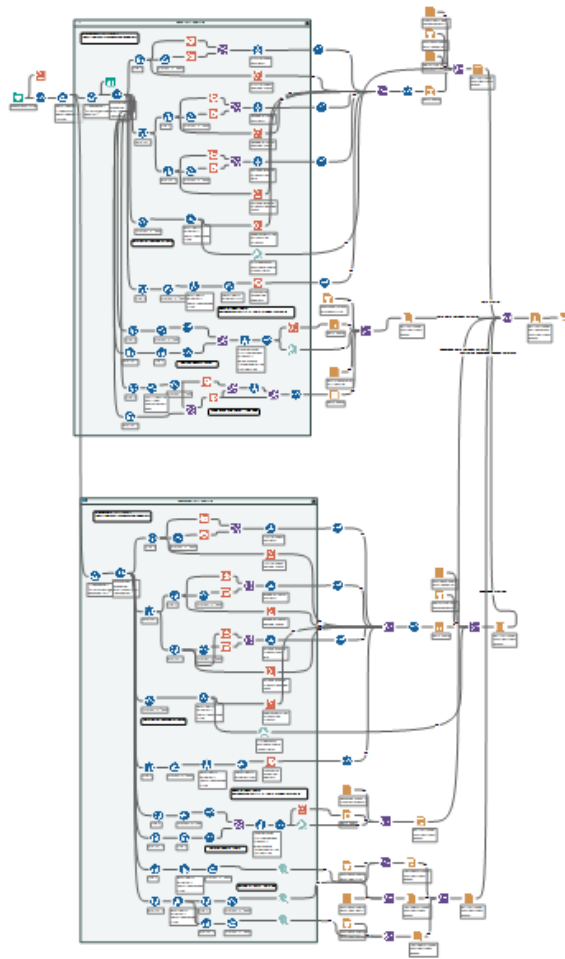
# LEVELS OF CERTIFICATION



**EXPERT**

**ADVANCED**

**CORE**



**CORE** ~~=~~ **BASIC**

**CORE**

**=**

**COMPREHENSIVE**



# TOPICS ON THE EXAM



Browse



Input Data



Output Data



Text Input



DateTime



Text to Columns



Comment



Tool Container



Append Fields



Find Replace



Join



Union



Count Records



Cross Tab



Summarize



Transpose



Data Cleansing



Filter



Formula



Sample



Select



Select Records

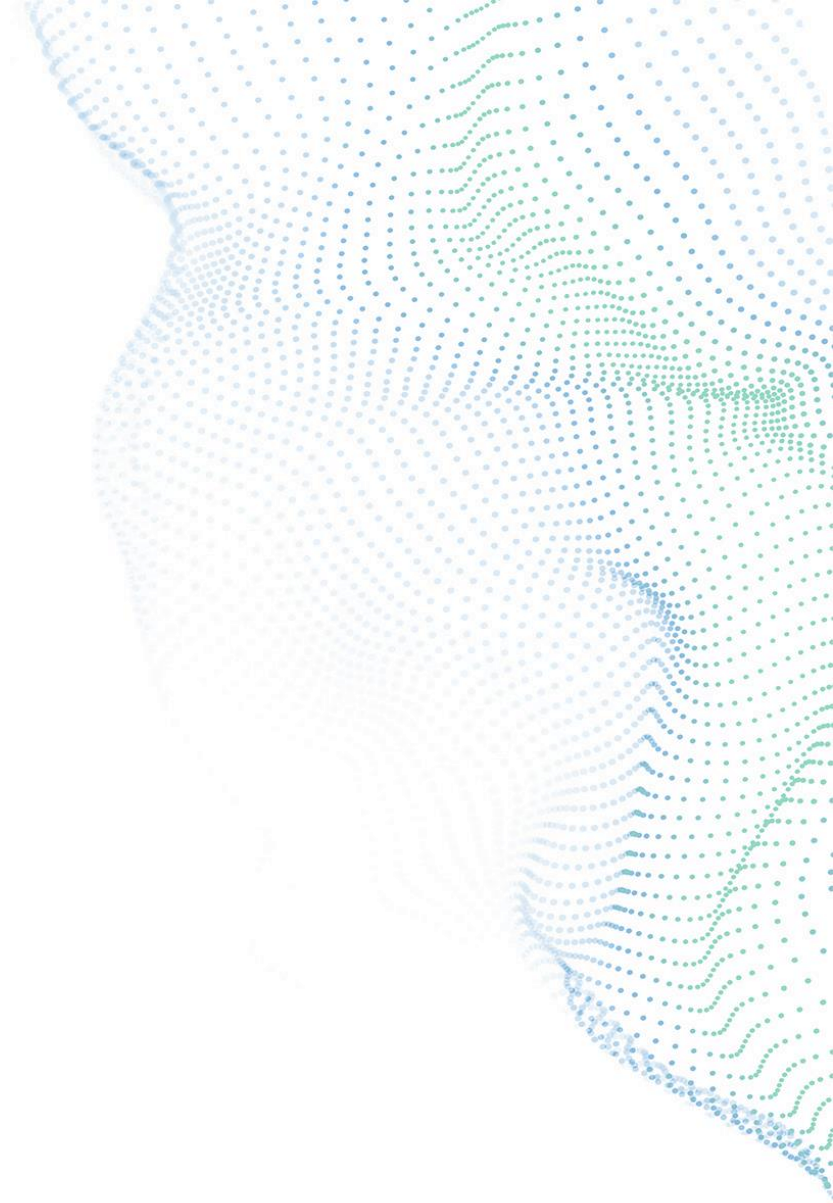


Sort



Unique

# Reading Data



# Where Can Alteryx Designer Read Data From?

- Manually entered data
- Microsoft Excel
- Local and networked files
- Databases
- Web services





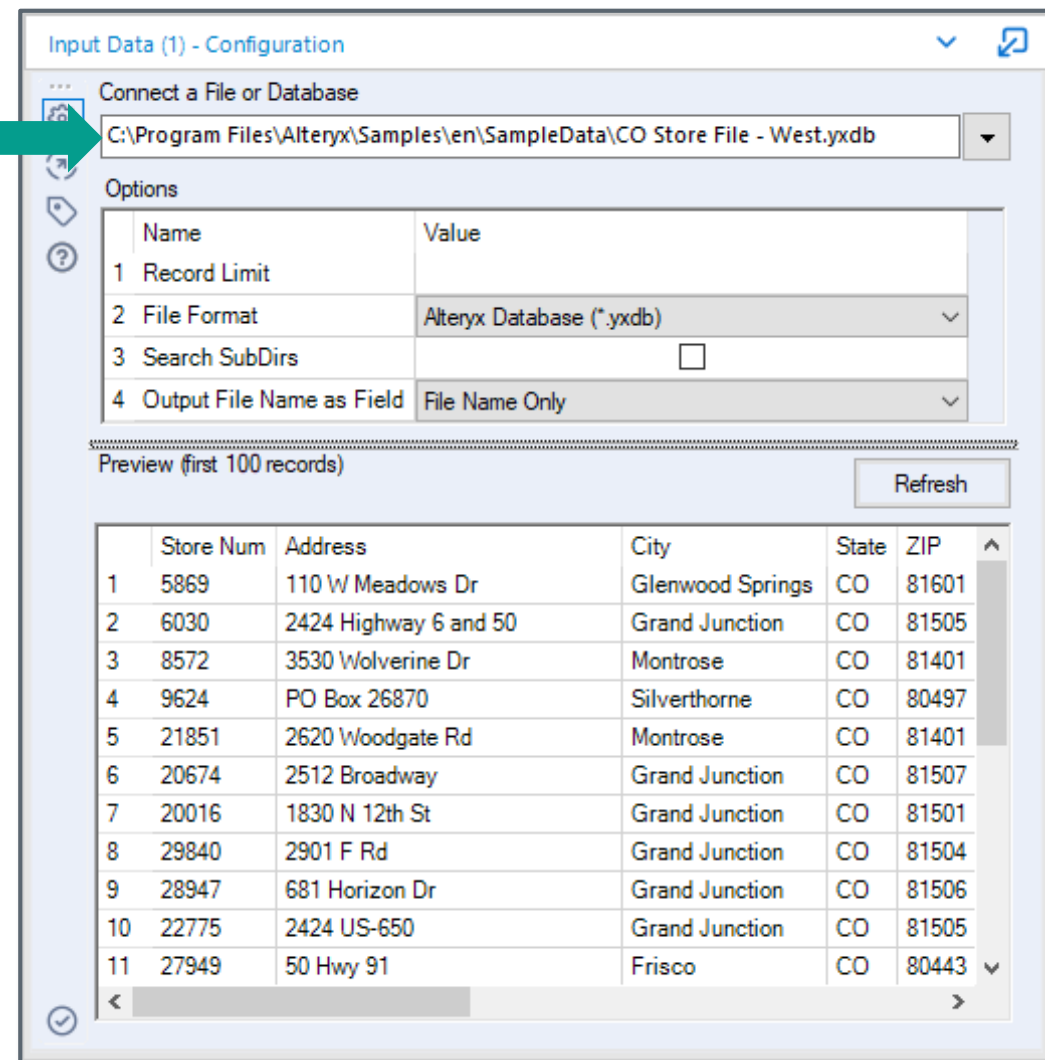
# How to Connect to a File with the INPUT DATA Tool

- **Local**

- Path to file (absolute or relative)
- File must be unlocked

- **Network**

- Log into network
- URI or Mapped Drive



Input Data (1) - Configuration

Connect a File or Database

C:\Program Files\Alteryx\Samples\en\SampleData\CO Store File - West.yxdb

Options

Name	Value
1 Record Limit	
2 File Format	Alteryx Database (*.yxdb)
3 Search SubDirs	<input type="checkbox"/>
4 Output File Name as Field	File Name Only

Preview (first 100 records) Refresh

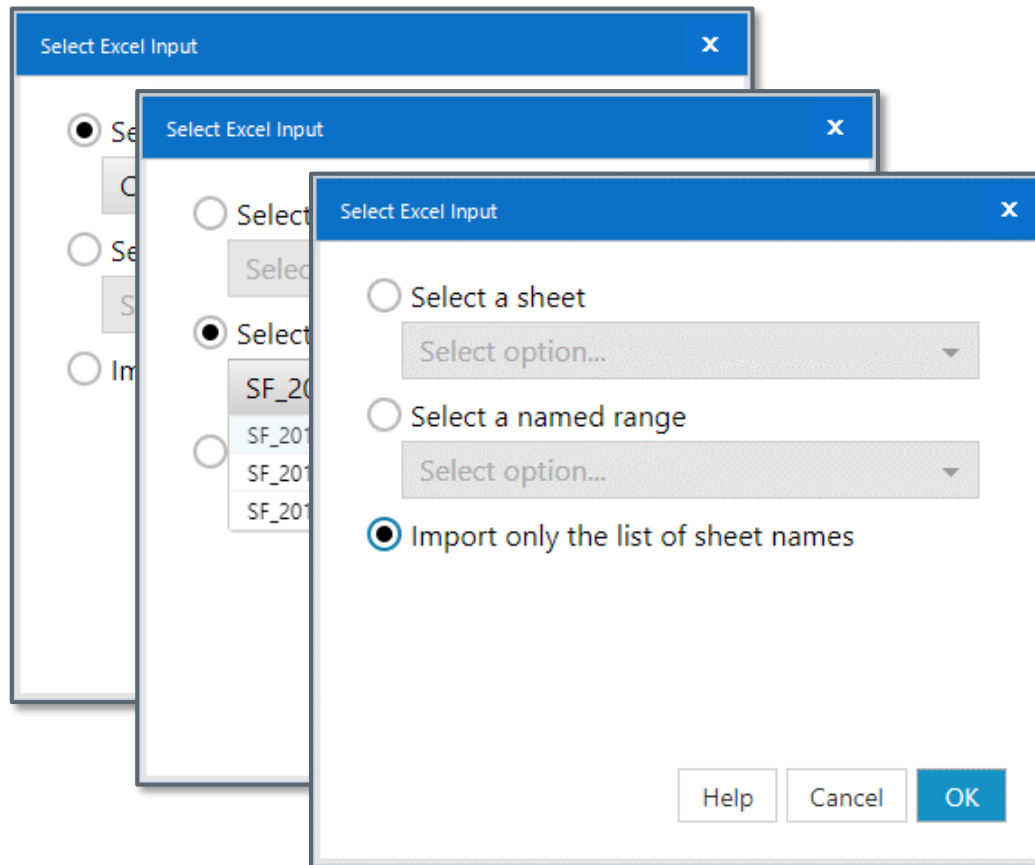
	Store Num	Address	City	State	ZIP
1	5869	110 W Meadows Dr	Glenwood Springs	CO	81601
2	6030	2424 Highway 6 and 50	Grand Junction	CO	81505
3	8572	3530 Wolverine Dr	Montrose	CO	81401
4	9624	PO Box 26870	Silverthorne	CO	80497
5	21851	2620 Woodgate Rd	Montrose	CO	81401
6	20674	2512 Broadway	Grand Junction	CO	81507
7	20016	1830 N 12th St	Grand Junction	CO	81501
8	29840	2901 F Rd	Grand Junction	CO	81504
9	28947	681 Horizon Dr	Grand Junction	CO	81506
10	22775	2424 US-650	Grand Junction	CO	81505
11	27949	50 Hwy 91	Frisco	CO	80443



# Reading in Excel Data

## Table options:

- Sheets
- Named ranges
- List of sheet names



# Alteryx Designer Parses Data to Tables

Field (Column)

	Store Num	Address	City	State	ZIP
1	5869	110 W Meadows Dr	Glenwood Springs	CO	81601
2	6030	2424 Highway 6 and 50	Grand Junction	CO	81505
3	8572	3530 Wolverine Dr	Montrose	CO	81401
4	9624	PO Box 26870	Silverthorne	CO	80497
5	21851	2620 Woodgate Rd	Montrose	CO	81401
6	20674	2512 Broadway	Grand Junction	CO	81507
7	20016	1830 N 12th St	Grand Junction	CO	81501
8	29840	2901 F Rd	Grand Junction	CO	81504
9	28947	681 Horizon Dr	Grand Junction	CO	81506
10	22775	2424 US-650	Grand Junction	CO	81505
11	27949	50 Hwy 91	Frisco	CO	80443

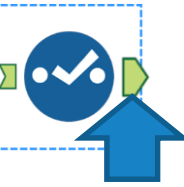
Record (Row)

# Viewing Data in the Workflow Results Window

Input (Data going into tool)



Output (Data coming out of tool)



Results - Select (41) - Input

11 of 11 Fields | Cell Viewer | Data Metadata

Record	Employee Name	Job Title	Base Pay
1	Muranishi, Susan Shirasawa	County Administrator	313683.72
2	Ahern, Gregory James	Sheriff	267870.98
3	O'Malley, Nancy E.	District Attorney	253718.4
4	O'Connell, Patrick J.	Auditor-Controller	235524.9
5	Medeiros, Rocky L.	Division Commander	196141.86
6	Keteles, Brett Miller	Asst Sheriff	203190.4
7	Chaffin, Jennifer Ann	Physician III	270534.98
8	Harris, La Donna M.	Chief Probation Officer	195243.2
9	Graves-Matthews, Mcheko	Physician III	257731.88
10	Houghttelling, Dennis A.	Division Commander	186258.94
11	Ziegler, Donna Raulene	County Counsel	224494.43

Results - Select (41) - Output

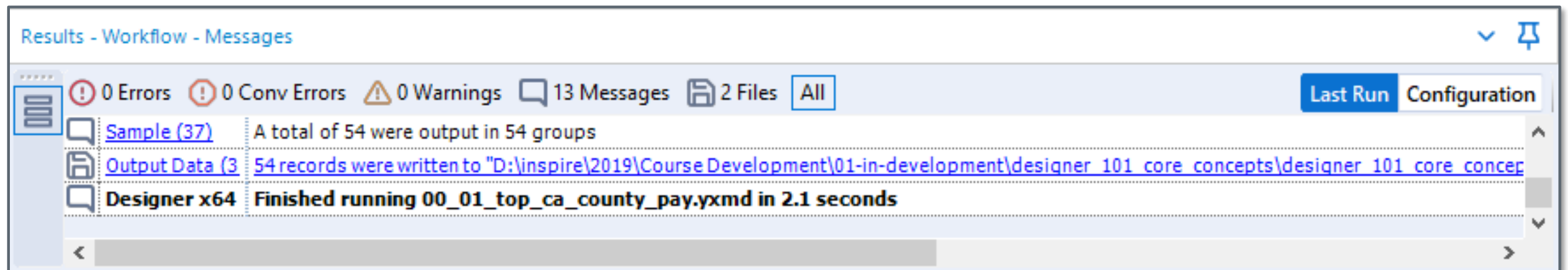
11 of 11 Fields | Cell Viewer | Data Metadata

Record	Employee Name	Job Title	Base Pay
1	Muranishi, Susan Shirasawa	County Administrator	313683.72
2	Ahern, Gregory James	Sheriff	267870.98
3	O'Malley, Nancy E.	District Attorney	253718.4
4	O'Connell, Patrick J.	Auditor-Controller	235524.9
5	Medeiros, Rocky L.	Division Commander	196141.86
6	Keteles, Brett Miller	Asst Sheriff	203190.4
7	Chaffin, Jennifer Ann	Physician III	270534.98
8	Harris, La Donna M.	Chief Probation Officer	195243.2
9	Graves-Matthews, Mcheko	Physician III	257731.88
10	Houghttelling, Dennis A.	Division Commander	186258.94
11	Ziegler, Donna Raulene	County Counsel	224494.43

# Viewing Log Messages in Results Window

## Results – Workflow - Messages

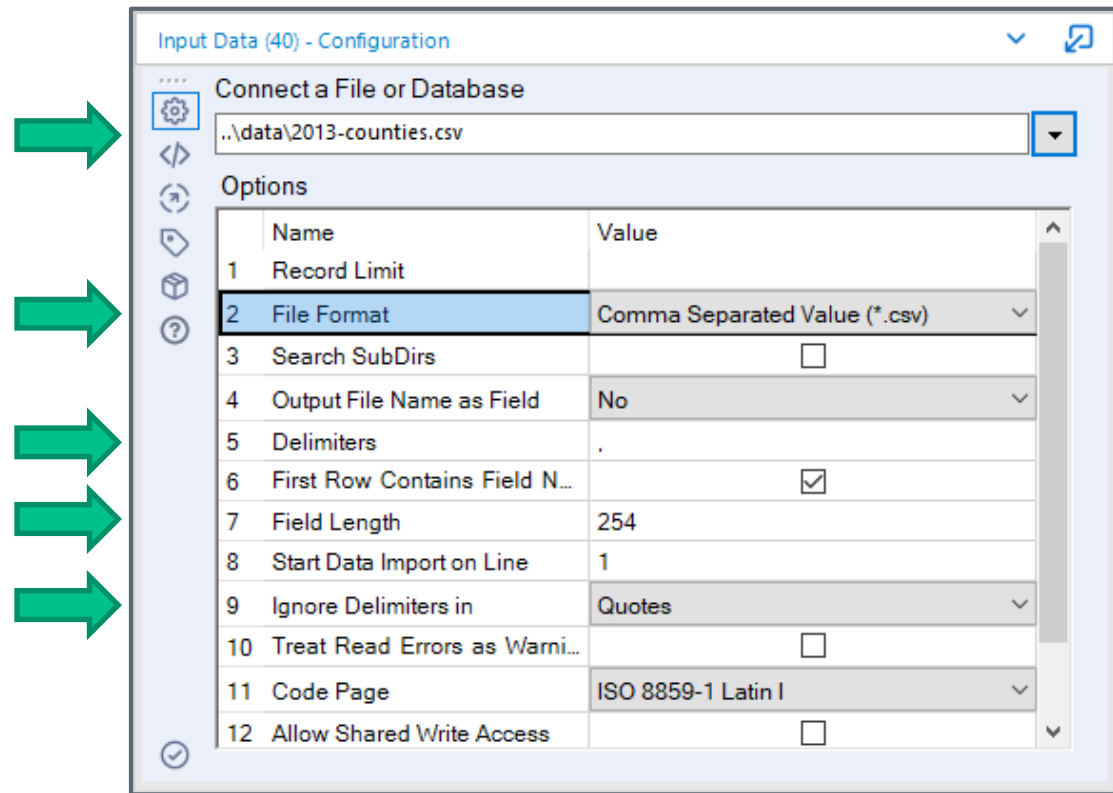
- Click canvas whitespace for workflow messaging.
- Different levels of messages (**Errors**, **Conv Errors**, **Warnings**, Messages)
- Click the tool name to select the tool
- Click an input or output file name to open file with the native application



# Connecting to CSV Files

# CSV Input Settings

- Path to file
- File Format CSV
  - Use characters for comma (,), period (.), and pipe (|)
  - For none use backslash zero (\0)
  - For tab use backslash (\t)
- Set the max field length for all fields, default is 254
- Set Ignore behavior



# Reading Multiple Files with a Wildcard



# Reading Multiple Files with a Wildcard

Use wildcards to modify the PATH field:

- asterisk (\*) *zero or more characters*

Connect a File or Database

```
..\data\san-francisco-*.csv
```

- question mark (?) *one character*

Connect a File or Database

```
..\data\los-angeles-county-201?.csv
```

san-francisco-\*.csv matches

- san-francisco-2013.csv
- san-francisco-2012.csv
- san-francisco-2011.csv

los-angeles-county-201?.csv matches

- los-angeles-county-2013.csv
- los-angeles-county-2012.csv
- los-angeles-county-2011.csv

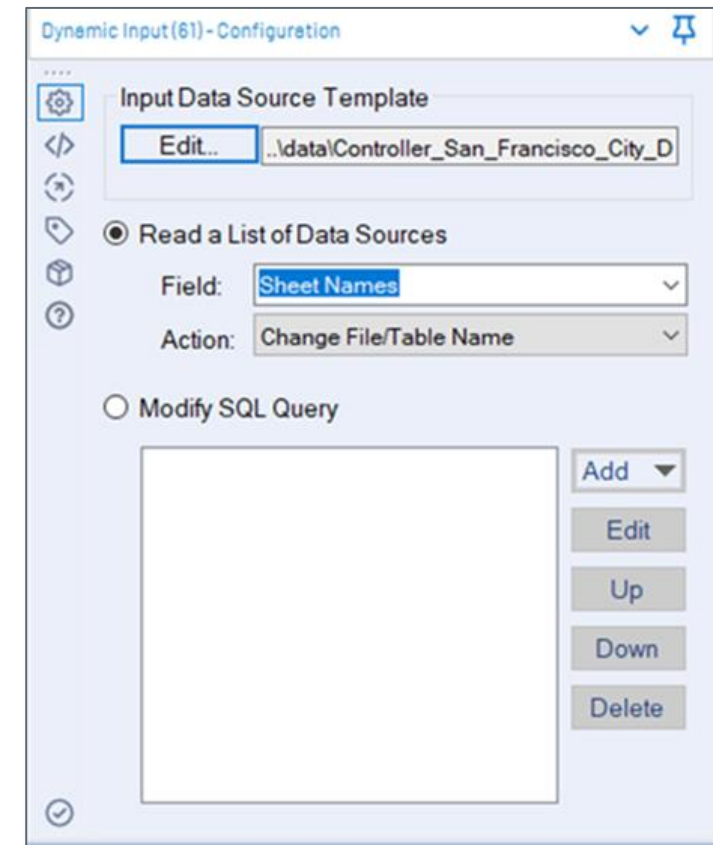


# Reading Multiple Files with Dynamic Input

# Configuring the Dynamic Input

Drop a Dynamic Input tool after the Input Data tool and set up an Input Template:

1. Click Edit:
  - Select an Excel workbook
  - Choose a sheet
2. Select the Read a List of Data Sources option
3. Set Field to Sheet Names



# Visualizing Dynamic Input



Input Data (1) - Configuration

Connect a File or Database  
..\data\Controller\_San\_Francisco\_City\_Data\_All.xlsx

Options

Name	Value
1 Record Limit	
2 File Format	Microsoft Excel (*.xlsx)
3 Table or Query	<List of Sheet Names>
4 Search SubDirs	<input type="checkbox"/>

Preview (first 100 records) Refresh

Sheet Names
1 Controller_San_Francisco_City_D
2 Year-2003
3 Year-2004
4 Year-2005
5 Year-2006
6 Year-2007
7 Year-2008
8 Year-2009
9 Year-2010
10 Year-2011
11 Year-2012
12 Year-2013
13 Year-2014



Dynamic Input (61) - Configuration

Input Data Source Template  
Edit... ..\data\Controller\_San\_Francisco\_City\_D

Read a List of Data Sources

Field: Sheet Names

Action: Change File/Table Name

Modify SQL Query

Add Edit Up Down Delete

# Visualizing Dynamic Input



Input Data (1) - Configuration

Connect a File or Database  
..\data\Controller\_San\_Francisco\_City\_Data\_All.xlsx

Options

Name	Value
1 Record Limit	
2 File Format	Microsoft Excel (*.xlsx)
3 Table or Query	<List of Sheet Names>
4 Search SubDirs	<input type="checkbox"/>

Preview (first 100)

Sheet Name
1 Controller_S
2 Year-2003
3 Year-2004
4 Year-2005
5 Year-2006
6 Year-2007
7 Year-2008
8 Year-2009
9 Year-2010
10 Year-2011
11 Year-2012
12 Year-2013
13 Year-2014



Dynamic Input (61) - Configuration

Input Data Source Template  
Edit... ..\data\Controller\_San\_Francisco\_City\_D

Read a List of Data Sources

Sheet Names

Action: Change File/Table Name

Modify SQL Query

Input Data (1) - Configuration

Connect a File or Database  
..\data\Controller\_San\_Francisco\_City\_Data\_All.xlsx

Options

Name	Value
1 Record Limit	
2 File Format	Microsoft Excel (*.xls)
3 Table or Query	Year-2003\$
4 Search SubDirs	<input type="checkbox"/>
5 Output File Name as...	No
6 First Row Contains D...	<input type="checkbox"/>
7 Start Data Import on...	1

9 of 9 Fields | Cell Viewer

Record	Entity Name	Fiscal Year	Field Type	Category	Line Description
1	San Francisco	2003	REV	INTERNAL_SERV_FUND	Total Operating Revenue
2	San Francisco	2003	EXP	INTERNAL_SERV_FUND	Total Operating Expense
3	San Francisco	2003	REV	INTERNAL_SERV_FUND	Total Non-Operating Revenue
4	San Francisco	2003	EXP	INTERNAL_SERV_FUND	Total Non-Operating Expense
5	San Francisco	2003	REV	INTERNAL_SERV_FUND	Total Internal Serv Fund Revenue
6	San Francisco	2003	EXP	INTERNAL_SERV_FUND	Total Internal Serv Fund Expense
7	San Francisco	2003	REV	AIRPORT_ENTERPRISE	Total Operating Revenue
8	San Francisco	2003	EXP	AIRPORT_ENTERPRISE	Total Operating Expense

# Writing Data



# What File Types Can We Write To?

- Most of the input types, including:
  - Alteryx DB
  - Excel
  - Tableau (hyper and .tde)
  - Qlik
- Additional output types:
  - PDF
  - Word
  - Power Point
  - More...
- Create a new file
- Overwrite an existing file
- Append to an existing file
- Create batch reports (write separate files / sheets / tables based on criteria)
- Email results

# Reading and Writing Data: Alteryx Designer Training



# Additional Resources

# Tool Mastery Series

- Take a deeper dive into the tools on the Alteryx Community

**This is a series of articles meant to give you a deeper mastery of each tool, with a write-up of its functions, options and working examples for download.**

**Input  
Data**

**<https://community.alteryx.com/t5/Alteryx-Designer-Knowledge-Base/Tool-Mastery-Input-Data/ta-p/36909>**

**Text  
Input**

**<https://community.alteryx.com/t5/Alteryx-Designer-Knowledge-Base/Tool-Mastery-Text-Input/ta-p/36921>**

**Dynamic  
Input**

**<https://community.alteryx.com/t5/Alteryx-Designer-Knowledge-Base/Tool-Mastery-Dynamic-Input/ta-p/24946>**

**Browse**

**<https://community.alteryx.com/t5/Alteryx-Designer-Knowledge-Base/Tool-Mastery-Browse/ta-p/1208>**

**Output  
Data**

**<https://community.alteryx.com/t5/Alteryx-Designer-Knowledge-Base/Tool-Mastery-Output-Data/ta-p/30023>**

# Reading and Writing Data Review: Poll Questions

# POLL QUESTION 1

- What is the maximum number of records Alteryx can read in from a data source?

- A: 1,050,000
- B: 10,000,000
- C: 1 GB
- D: No limit



# POLL QUESTION 1

## ANSWER

- What is the maximum number of records Alteryx can read in from a data source?

- A: 1,050,000
- B: 10,000,000
- C: 1 GB
- D: No limit



# POLL QUESTION 2

- Which is an example of a relative file path?

- A: C:\Users\Documents\file.csv
- B: 1.25.10.14\file.csv
- C: Z:\SharedFolder/file.csv
- D: .\file.csv



# POLL QUESTION 2

## ANSWER

- Which is an example of a relative file path?

- A: C:\Users\Documents\file.csv
- B: 1.25.10.14\file.csv
- C: Z:\SharedFolder/file.csv
- D: .\file.csv



# POLL QUESTION 3

- True/False:
  - Alteryx enables you to output data to specific cells in an Excel file?
- True
  - False





# POLL QUESTION 3

## ANSWER

- True/False:
- Alteryx enables you to output data to specific cells in an Excel file?

- True
- False



# Resources for Practice

1

## ADDITIONAL EXERCISES

Download and complete the exercises for this week:

<https://community.alteryx.com/t5/Weekly-Challenge/bd-p/weeklychallenge>

2

## CORE CERT. PREP GUIDE

Review and complete the Prep Guide for Core Certification:

<https://community.alteryx.com/t5/Certification/bd-p/product-certification>

3

## ALTERYX COMMUNITY

Try Weekly Challenges, post your questions, search discussion forums, read Knowledge Base articles at:

<https://community.alteryx.com>



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Thank you

[alteryx.com](https://alteryx.com)

