

Core Fundamentals

Enablement Series

Session 1 | Getting Started with Alteryx

alteryx

Prerequisites



Alteryx Designer
downloaded, installed
and licensed



Training data
downloaded (found in
the Resources widget
on your screen)

AGENDA

1. Key Concepts & Examples

2. Guide to Getting Core Certified

3. Hands On Session

- Beginner Workshop
- Lesson 1 Exercise

Q&As

alteryx

Alteryx Analytics Automation Platform



IT



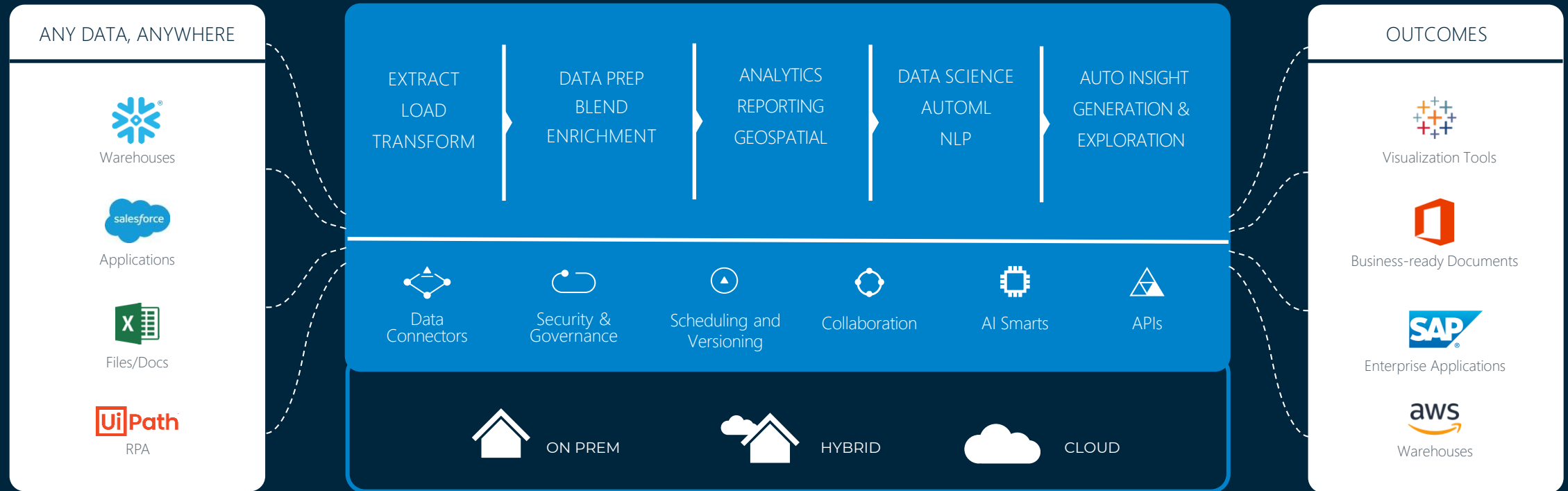
DATA ENGINEER



ANALYST



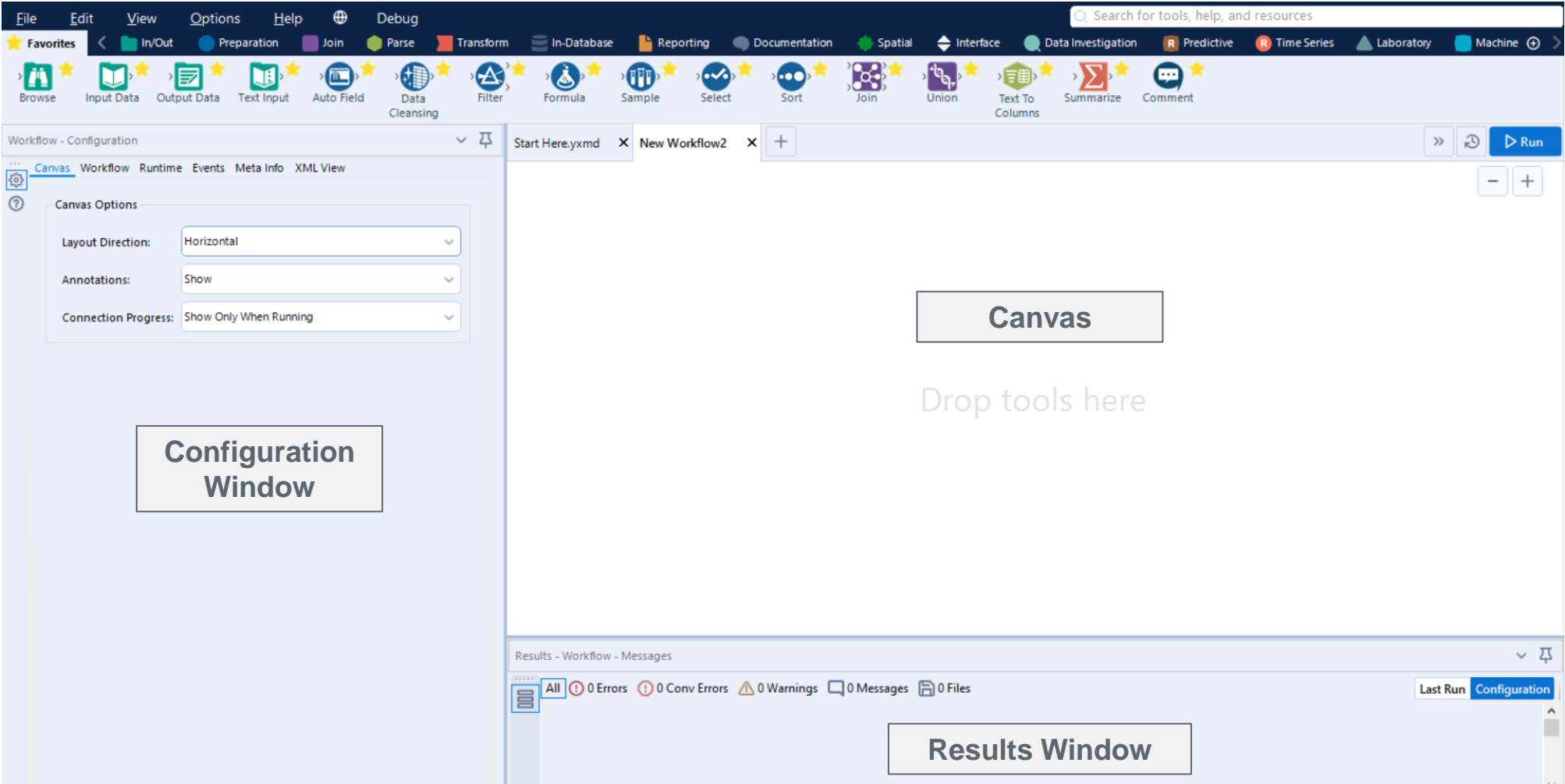
BUSINESS USERS



Navigating Designer

alteryx

Alteryx Designer Interface



Search Bar

Run Button

Canvas

Drop tools here

Configuration Window

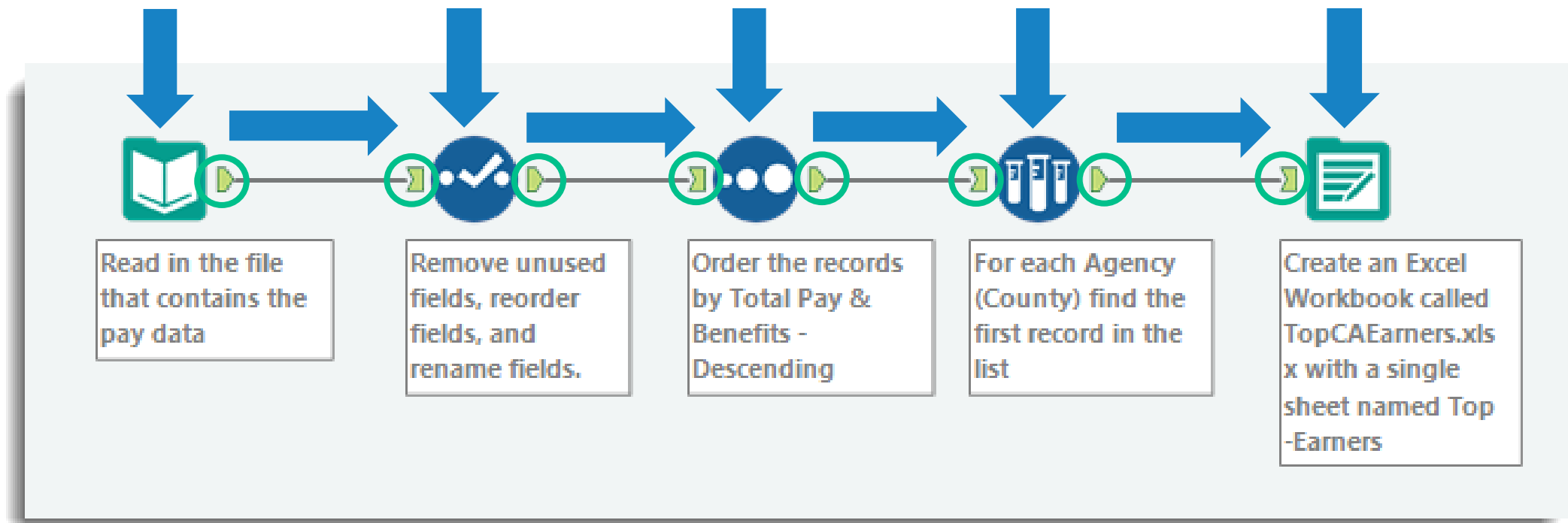
Results Window

Components of a Workflow

Tool – step in the process

Anchor – input and/or output of a tool








Connections – controls the flow of data from one tool to the next









Start to Think in Alteryx

alteryx

Key Concepts: Data Prep in Excel vs Alteryx

Task	Excel	Alteryx
Update data types, rename columns, remove columns, and change column order.	Format cells or change syntax, rename column headers, delete columns or select and shift to move columns.	 Use the Select Tool to easily change data types, rename fields, remove fields or re-order fields
Change data types	Format cells using the format cells menu or change syntax	 Use the Auto Field Tool to automatically update the data types of your fields to match the values contained in the field
Remove Rows	Manually select the rows you'd like to delete or use a quick filter to remove what you don't need	 Use the Filter Tool to create simple or complex filters on your data rows.
Sort	Highlight the columns and do a regular or custom sort.	 Use the Sort Tool to sort your data
Formulas	Write formula in cell and drag down to carry formula into more cells	 Use the Formula Tool to create new fields or update existing fields with a wide variety of formulas
Formulas containing multiple rows of data i.e. Cumulative Sum	Enter value into first cell then create formula using the starting point and additional rows of data. Drag formula to applicable rows.	 Use the Multi Row Formula Tool to utilize more than one row of data in your formulas.
Apply formula to multiple columns of data i.e. Calculate the % each field makes of the whole	Create a table of your data and pivot on the data	 Use the Multi Field Formula Tool to execute a single function on multiple fields

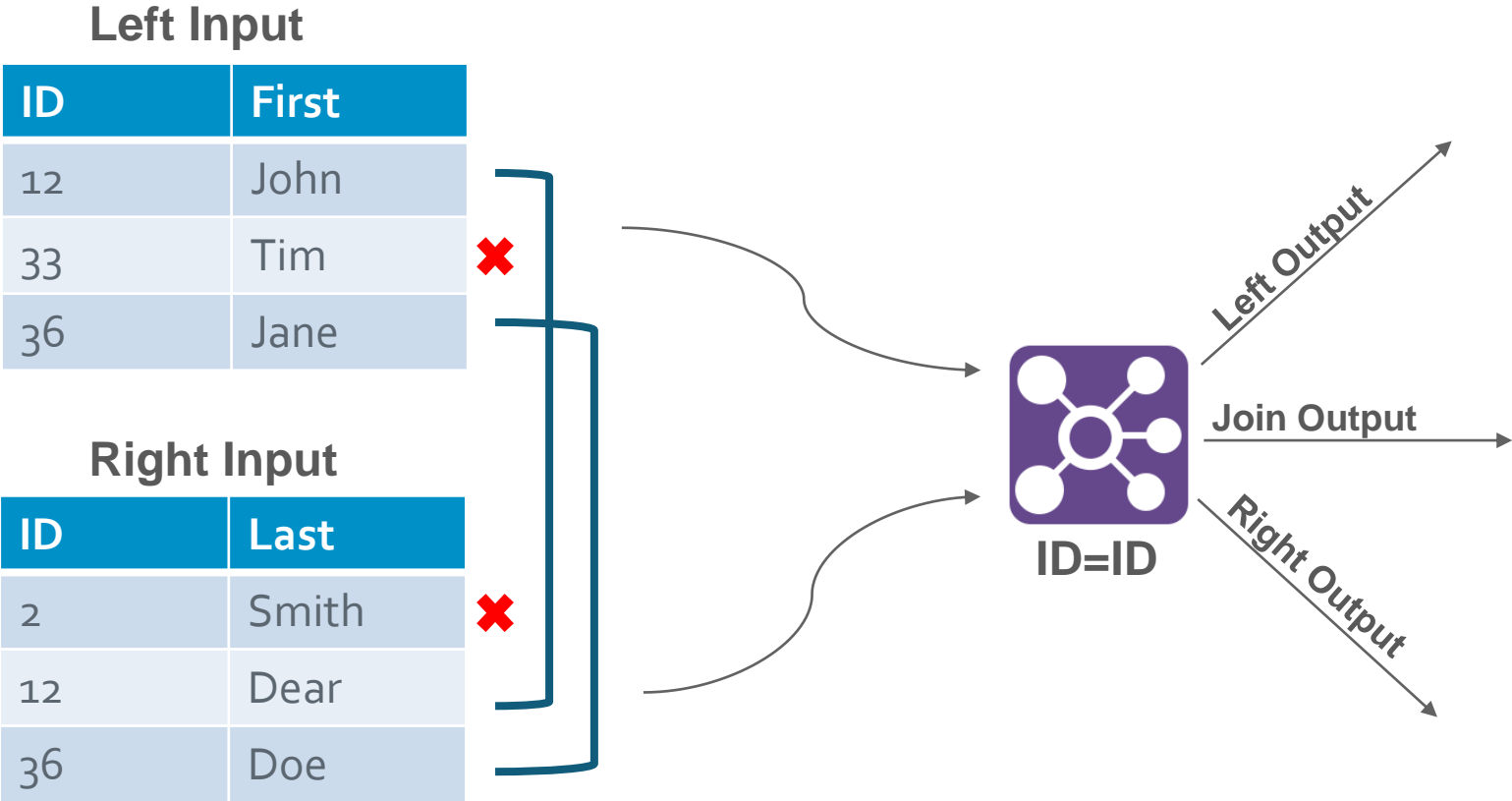
Key Concepts: Data Parse, Blend, Transform in Excel vs Alteryx

Task	Excel	Alteryx
Parse data	Select columns and use the Text to Columns Wizard	 Use the Text to Columns Tool to split a field with a regular format, such as, a csv.
Join two tables with a common field	Use VLOOKUP formula or wizard	 Use the Join Tool to join two tables with a common field.
Append Rows	Copy and paste contents of table so fields align appropriately	 Use the Union Tool to combine multiple worksheets based on the field names or maintaining the position of each column.
Pivot Table	Build a pivot table and mold data to desired shape	 Use the Cross Tab Tool to pivot the orientation of the data table so vertical data fields can be viewed on a horizontal axis summarizing data where specified.
Pivot Table	Build a pivot table and mold data to desired shape	 Use the Transpose Tool to pivot the orientation of the data table. It transforms the data so you may view Horizontal data fields on a vertical axis.
Aggregate and Sum data	Write a sum formula or use the auto-sum symbol	 Use the Summarize Tool to aggregate data perform operations, like sum or count, on numeric fields.

Joining Data

alteryx

Visualizing Joins

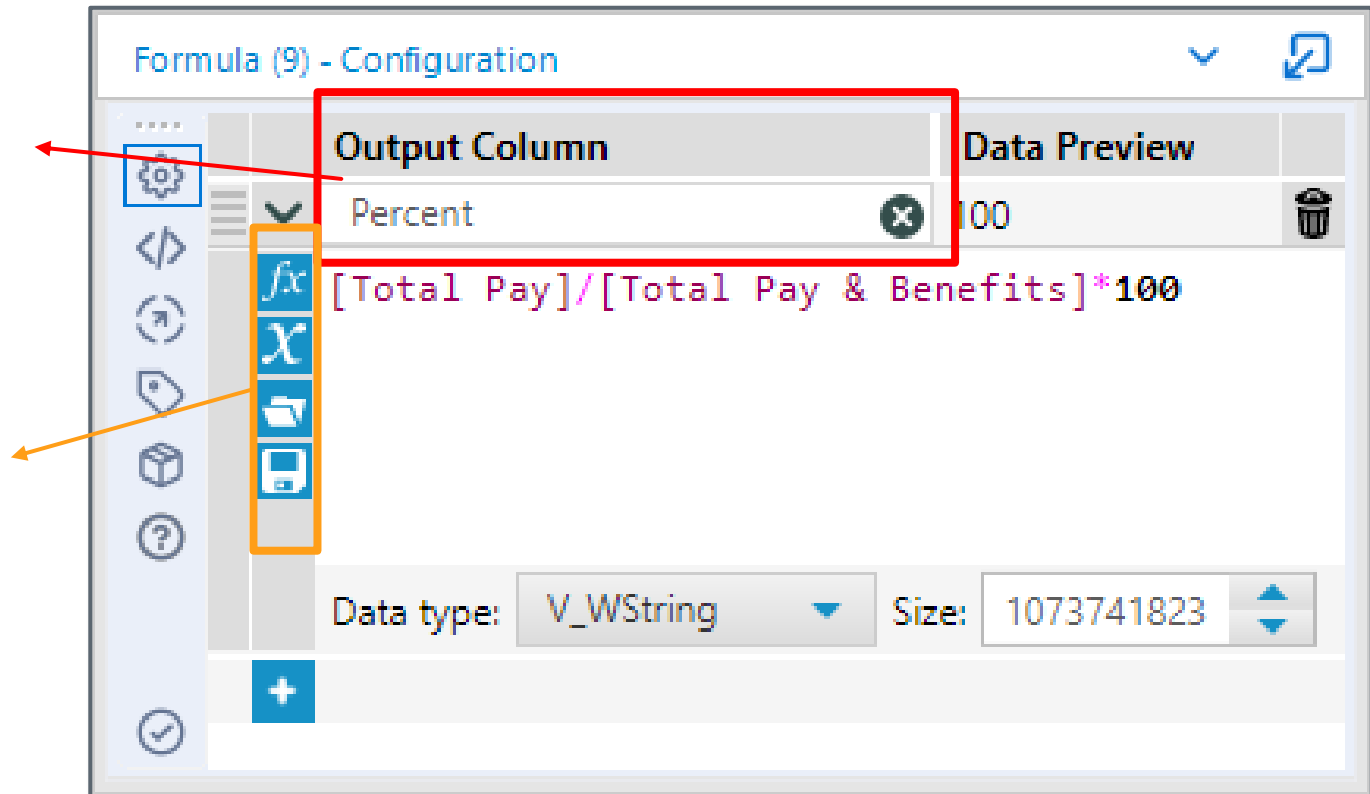


Formula Basics

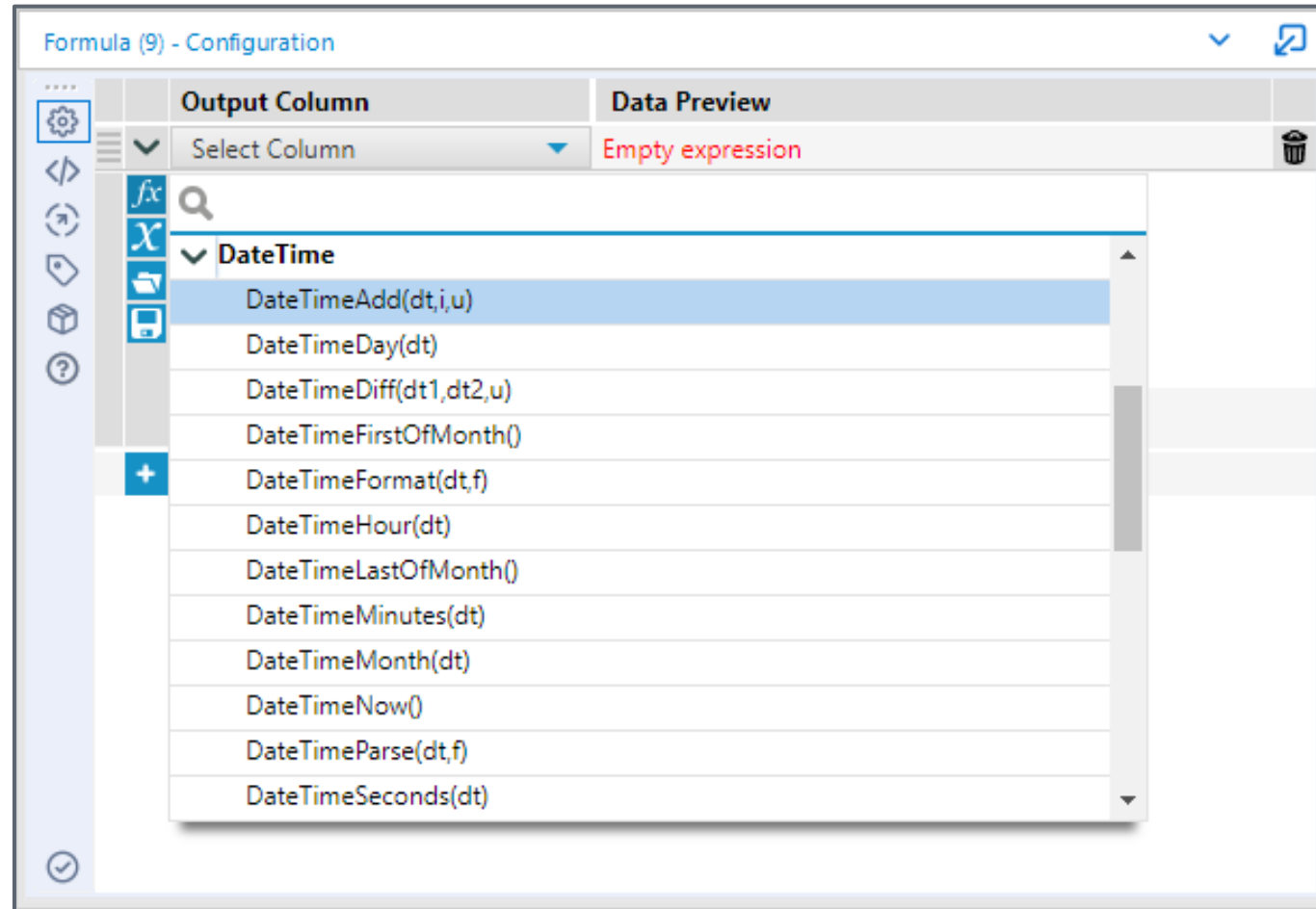
alteryx

Basic Formula Intro

- Output Column/ Fields
 - Select 'Add Column'
 - Select an existing column
- Tabs
 - Functions
 - Columns and Constants
 - Save Expressions



Syntax Hinting and Validation

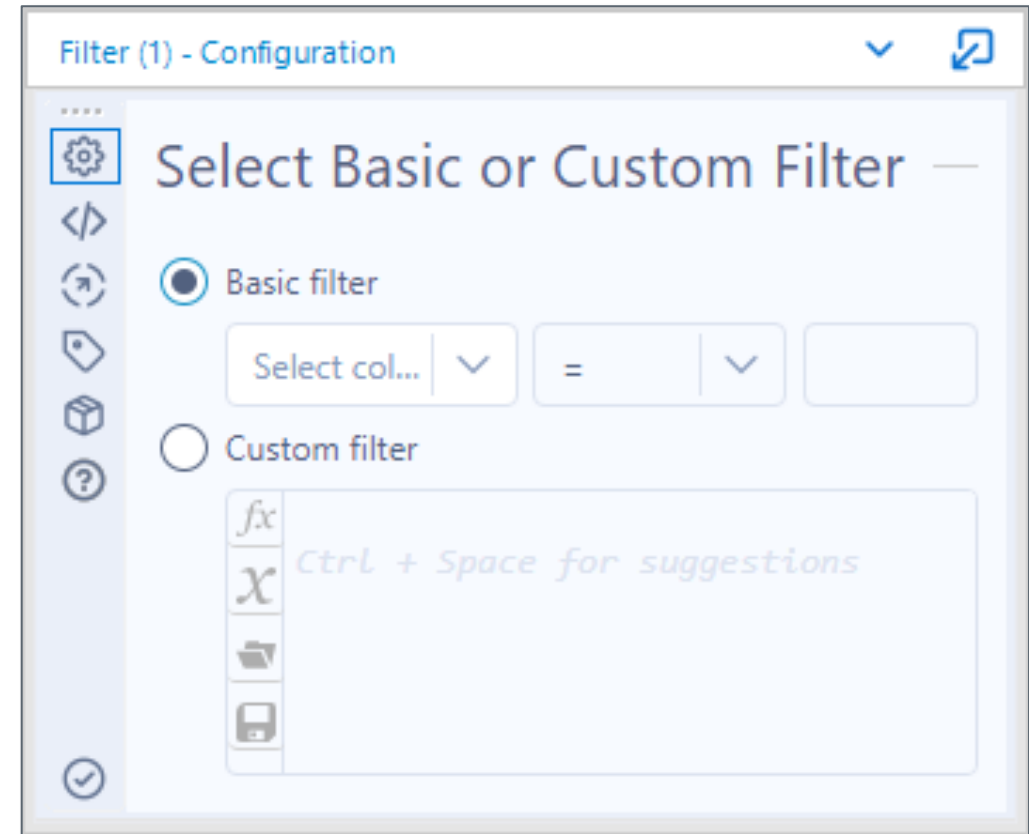


Conditional Expressions

alteryx

Filter Tool

- Basic Filter
 - Tests for a single condition
 - Writes the Expression for you
- Custom Filter
 - Check for more complex conditions
 - Check for multiple conditions



Introduction to Aggregation

alteryx

Summarize for Each

- Select Field by highlighting (clicking)
- Add > Group by
 - Grouping separates the fields into buckets based on the field values
 - Actions (Sum, Count, etc) is then applied to group
- You can rename the output field

Summarize - Configuration

Fields:

	Field	Type
▶	Employee Name	V_String
	Job Title	V_String
	Base Pay	Double
	Overtime Pay	Double
	Other Pay	Double
	Benefits	Double
	Total Pay	Double
	Total Pay & Ben...	Double
	Year	Double
	Notes	V_String
	Agency	V_String

Actions:

	Field	Action	Output Field Name
▶	Agency	GroupBy	Agency
	Base Pay	Sum	Sum_Base Pay

Action Properties

This action has no properties

Visualizing Summarizations

Store	Customer	Sales
A	Dan Duran	10
A	Bob Dude	120
B	Billy Bonk	30
B	Bob Dude	20
B	Bob Dude	50
C	Optimus Prime	60
D	Bob Dude	75

1
2
1
2
3
1
1



Group By: Store
Count: Customers

Store	Count Customers
A	2
B	3
C	1
D	1

Group By: Customer
Sum: Sales

Customer	Sum Sales
Dan Duran	10
Bob Dude	265
Billy Bonk	30
Optimus Prime	60

Hands On Session

alteryx



Use Case

Description

You are Store Location Planner for a Supermarket chain. You have been given the task of building additional stores that will capture more of the student market.

Using store data as well as demographic information, you will determine the areas in the UK with the largest population of students. From this you will find the level of competition that rival stores provide in each location.

Learning Objectives

- Prepare & blend data from two different sources
- Format values, perform calculations, and aggregate data
- Identify percentage of business that each competitor holds in each area and find where is best to build your next store

Guide to Getting Core Certified

[Prep Guide Link](#)

alteryx

Why Get Certified?

- Test your knowledge of the “core” toolset in Designer and your ability to apply your knowledge and use the tools to solve real-world problems
- The core toolset includes the tools that are used most often in Alteryx Designer and are fundamental to data preparation and analysis.

Need to Know

- **Audience:** Everyone with an Alteryx Community profile
- **Price:** Free
- **Attempts:** One attempt every 7 days
- **Time:** 2 ½ hours
- **Point Values:** 80 questions - 1 point for multiple-choice, matching, multiple-response, and practical application. Partial credit is awarded for matching and multiple-response questions (“Select THREE options”).
- **Open book exam** i.e.: open browser, open Designer, open documentation (I would recommend 2+ screens)

What Does it Cover?

The 23 Tools on the Core Exam




In the Exam

Alteryx Designer Core Certification

Alteryx Designer Core

Time left: 1:43:37

 Ruhena Ahmed

Question 14 of 80

Points: 3

The data set [Pet_Owners](#) contains a list of people who own pets. Data sets [Home_Owners1](#) and [Home_Owners2](#) contain a list of people who own homes. How many people own homes and pets?

- ☐ 4,045
- ☐ 0
- ☐ 2,653
- ☐ 1,392

[Clear selection](#)

[◀ Previous](#)

[Next ▶](#)

[Display previously viewed questions ▼](#)

Question Types

1

Multiple Choice

2

True/False

3

Multiple Selection

4

Matching

Learning Resources



The Core exam is designed to help you demonstrate your skills: it is free, online, on demand, and open book.

1. Getting Started Learning Path

<https://community.alteryx.com/t5/Learning-Paths/Getting-Started-Learning-Path/ta-p/475117>

2. Interactive Lessons

<https://community.alteryx.com/t5/Interactive-Lessons/tkb-p/interactive-lessons3>.

3. Weekly challenges for helpful practice:

<https://community.alteryx.com/t5/Weekly-Challenge/Weekly-Challenge-Index-amp-Welcome-Page-1/td-p/48275>

4. Core Certification Practice Test

<https://community.alteryx.com/t5/Certification-Resources/Designer-Core-Cert-Practice-Test/ta-p/401575>

Tips (1/2)



Read Carefully

Read each question carefully before answering. Pay close attention to tool configurations, screenshots, and data sets. Just as in real life data analytics, the details matter!



Use Your Resources

Prior to beginning your exam, **have all your resources up and ready**. Use multiple screens if available and spend some time getting organized.



Pace Yourself

Allot about 75 seconds for each 1-point question and 4 minutes for each practical application question. If you finish early, use the remaining time to go back and check your answers. Use the full 2.5 hours.

Tips (2/2)



Answer Every Question

In the exam platform, use the Bookmark feature to flag questions you would like to come back to and review later. Select **See all questions** to view all unanswered and bookmarked questions. Many questions provide partial credit, so it is worth attempting to answer every question even if you aren't 100% sure.



Reflect, Review, Refine

If you do not pass your first attempt, you now have a new study aid! Your exam results will be emailed to you with a breakdown of how you performed in each category. Take those results and use them to pinpoint your study efforts.

Hands On Session



Lesson 1

Connecting to
data, profiling and
writing outputs

alteryx

THANK YOU

alteryx