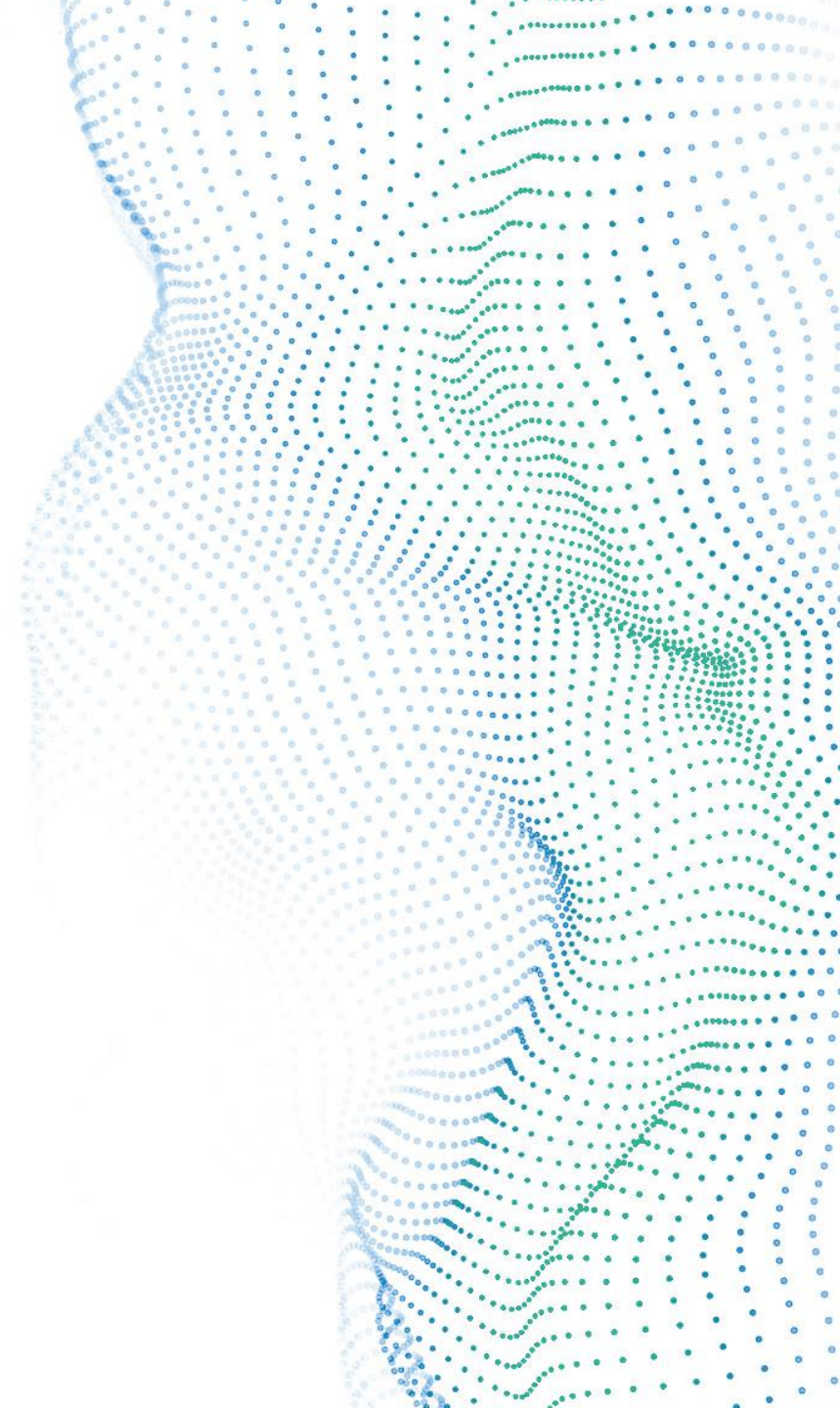




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Alteryx Core Certification Training Series



Training Series by Week

1 Reading and Writing Data

2 Data Blending and Formatting

3 Data Preparation

4 Transforming and Parsing Data

5 User Interface (UI), Documentation and Workflow Configuration

6 Core Certification Exam Preparation

Transforming and Parsing Data

Overview

Processes Covered

- Aggregating Data
- Transposing Data
- Creating Tables
- Text to Columns
- Converting Date Fields

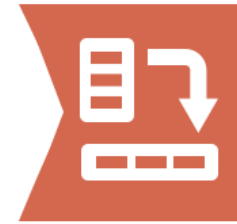
Tools Covered



Summarize



Transpose



Cross Tab



Text to Columns



Date Time

Aggregating Data in a column

The screenshot shows the Microsoft Excel interface with the 'FORMULAS' ribbon selected. The 'AutoSum' dropdown menu is open, showing options: Sum, Average, Count Numbers, Max, Min, and More Functions... The formula bar displays '=SUM(C2:C37607)'. The data table below has columns C through H. The total row for row 37608 is highlighted in green.

		C	D	E	F	G	H	
37598	Env			0	10.69	1.45	10.69	12.14
37599	Env			0	10.69	1.45	10.69	12.14
37600	Env			0	10.69	1.45	10.69	12.14
37601	Environmental Service Worker			0	9.98	1.35	9.98	11.33
37602	Environmental Service Worker			0	9.98	1.35	9.98	11.33
37603	PS Aide Health Services			0	10.67	0	10.67	10.67
37604	Senior Clerk			0	5.56	0	5.56	5.56
37605	Police Officer 3			0	0	-2.73	0	-2.73
37606	Police Officer 3			0	0	-8.2	0	-8.2
37607	Police Officer 3			0	0	-33.89	0	-33.89
37608		2576380748	198621428.3	143653754	896116253.6	2918655931	3814772184	

Intro to Summarize

- Select Field by highlighting (clicking)
- Add > ACTION (applied to column)
 - Data Type dependent actions greyed out if selected field is not the matching data type
- You can rename the Output Field Name

Summarize (6) - Configuration

Fields:

	Field	Type
▶	Employee Name	V_String
	Job Title	V_String
	Base Pay	Double
	Total Pay & Ben...	Double
	County	V_String

Actions:

	Field	Action	Output Field Name
▶	Employee Name	Count	Count
	Base Pay	Sum	Sum_Base Pay

Action Properties

This action has no properties



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

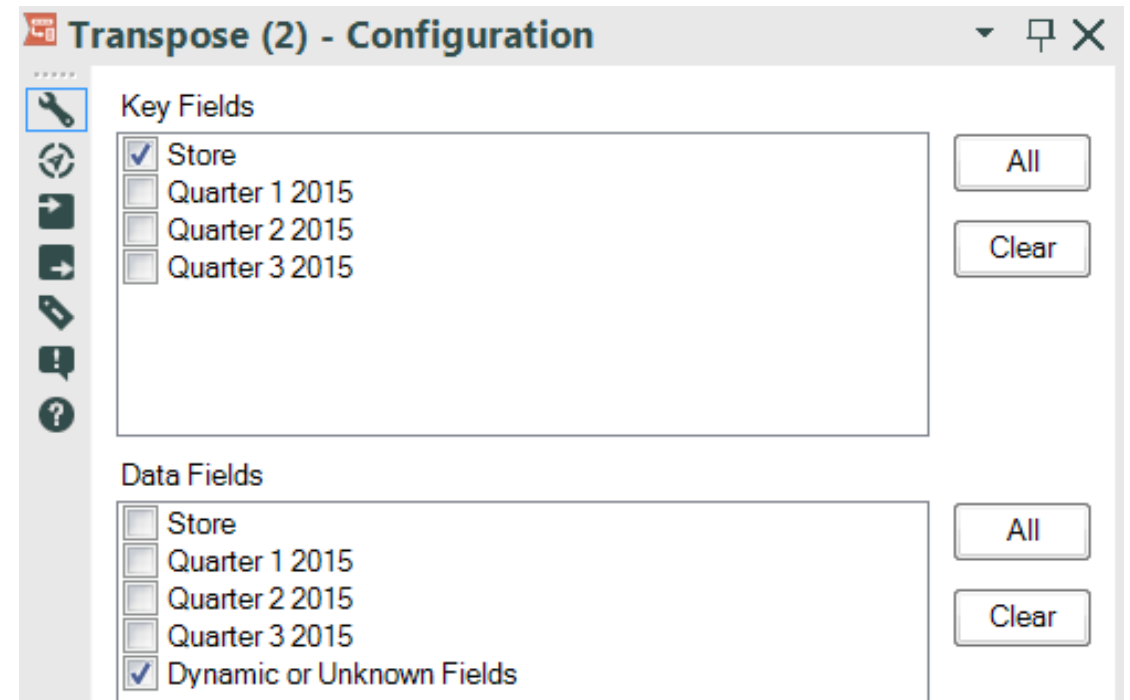
Store	Count Customers
A	2
B	3
C	1
D	1

Group By:
Customer
Sum: Sales

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

Transpose Tool

- Pivot horizontal data to a vertical axis
- Key field replicates vertically
- Pivots back to three main fields
 - Key(s)
 - Name
 - Value
- The reverse application of the crosstab tool



Visualizing Transpose

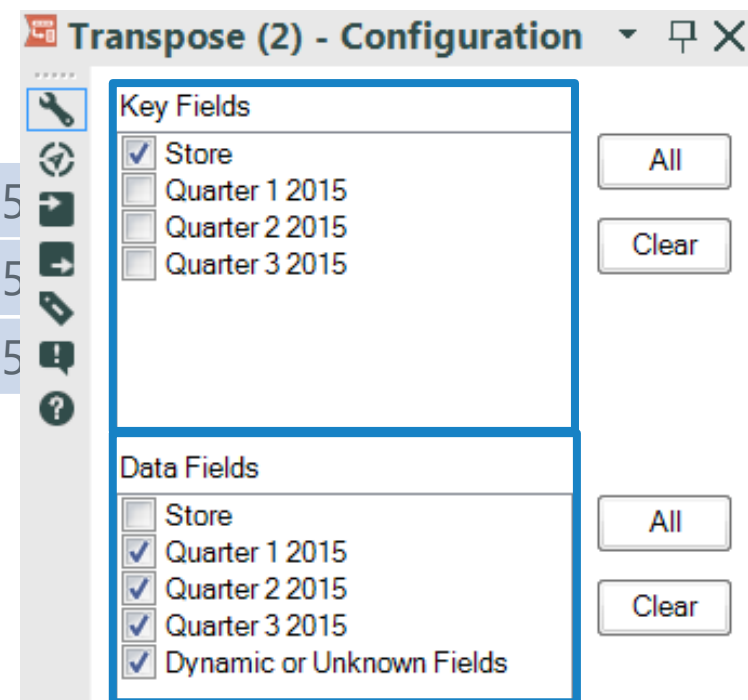
Goal: A new field is added for each quarter. Sum up total sales for each store using the summarize tool.

Before

Store	Quarter 1 2015	Quarter 2 2015	Quarter 3 2015
Geppetto's Puppets	5624.60	7933.12	6002.01

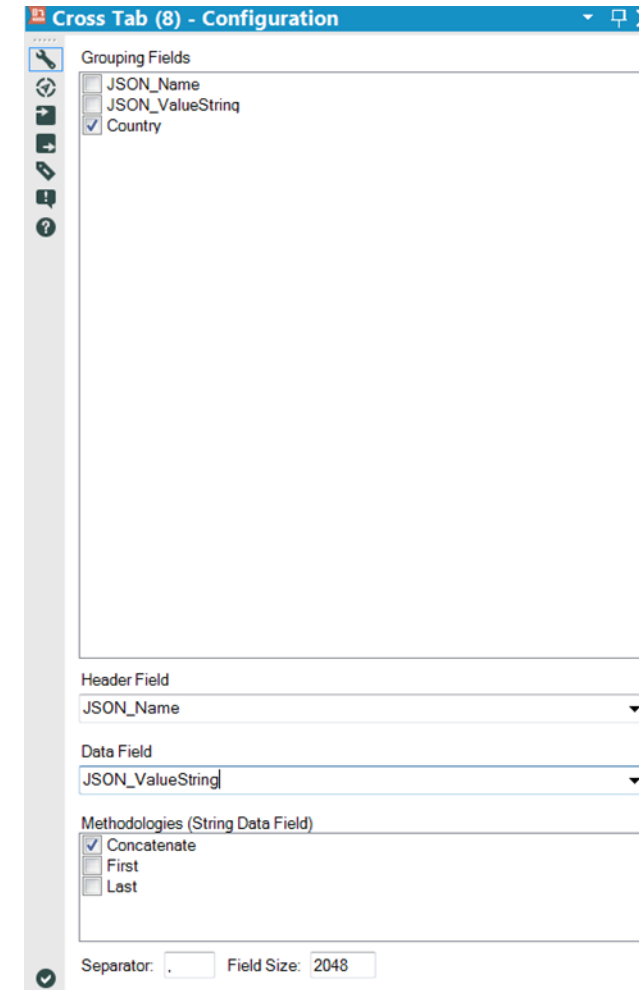
After

Value	Name
5624.60	Quarter 1 2015
7993.12	Quarter 2 2015
6002.01	Quarter 3 2015



Cross Tab Tool

- Pivots vertical data fields onto a horizontal axis
- Specify header field, data field, and grouping
- Handling text data fields
 - Concatenate, first, last
- Handling numeric fields
 - Sum, avg, count, % of column, total column, total row



Visualizing Cross Tab

Group by City, Name as Header Field, Value as Data Field

Before

City	Value	Name
San Francisco	Sunny	Description
San Francisco	72	Temperature
San Francisco	9	Wind
San Francisco	.1	Humidity

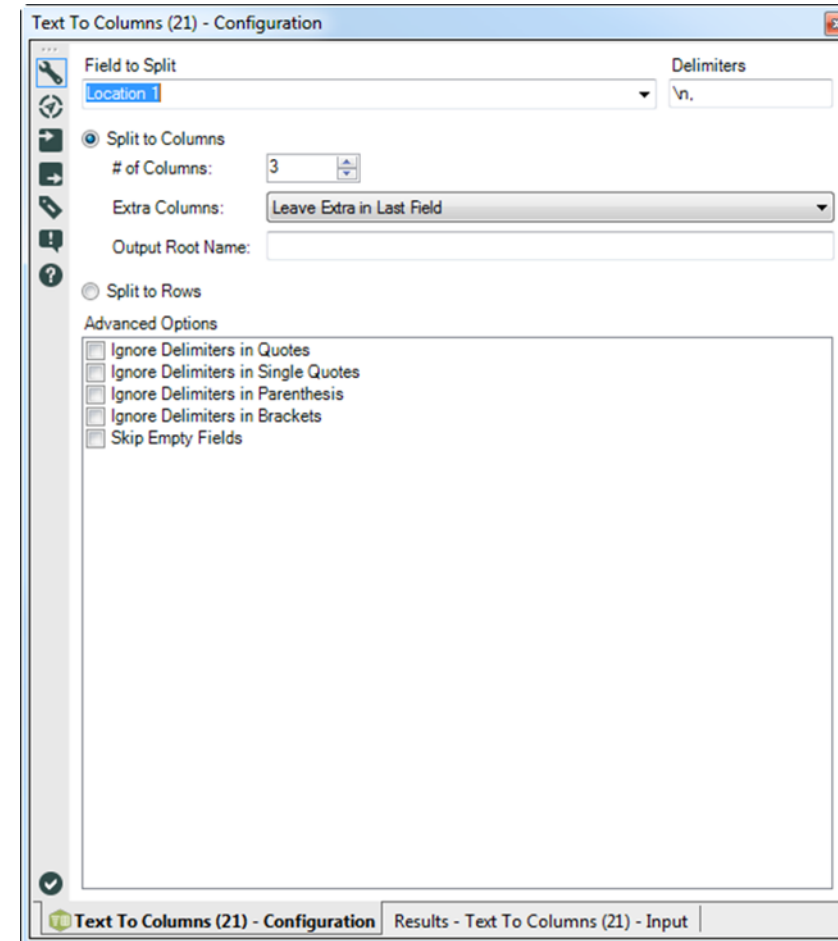
After

Description	Temperature	Wind	Humidity
-------------	-------------	------	----------



Text to Columns Overview

- Field to Split – Only string fields display
- Delimiters – enter one or more character patterns to match
- Can use special characters:
 - \s – space
 - \t – tab
 - \n - line break
- Split to columns or
- Split to rows



DateTime Overview

- Convert string formats to a DateTime data type
- Can also convert a DateTime data type to various string formats
- Use most common formats, or create custom format
- Always creates a new field (can be renamed within the tool)

The screenshot shows the configuration window for the 'DateTime (18)' tool in Alteryx. The window title is 'DateTime (18) - Configuration'. On the left side, there is a vertical toolbar with icons for settings (gear), code (code block), undo (curved arrow), redo (curved arrow), and help (question mark). The main configuration area includes:

- Select the format to convert:** Two radio buttons are present: 'Date/Time format to string' (unselected) and 'String to Date/Time format' (selected).
- Select the string field to convert:** A dropdown menu with 'First' selected.
- Specify the new column name:** A text input field containing 'DateTime_Out'.
- Select the format that matches the incoming string field:** A list box containing several date and time formats: 'MM/dd/yy', 'MM/dd/yy hh:mm:ss', 'MM/dd/yyyy', 'MM/dd/yyyy hh:mm:ss', 'Month dd, yyyy', 'Month, yyyy', 'yyyy-MM-dd', 'yyyy-MM-dd hh:mm:ss', 'yyyyMMdd', and 'Custom'. 'MM/dd/yy' is currently selected.
- Specify the format of the incoming string field:** An empty text input field.
- Example and Output:** Two empty text input fields for testing the configuration.

At the bottom left of the window, there is a checkmark icon indicating that the configuration is valid.



Transform and Parse: 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.

Summarize <https://community.alteryx.com/t5/Alteryx-Designer-Knowledge-Base/Tool-Mastery-Summarize/ta-p/24944>

Transpose <https://community.alteryx.com/t5/Alteryx-Designer-Knowledge-Base/Tool-Mastery-Transpose/ta-p/89741>

Cross Tab <https://community.alteryx.com/t5/Alteryx-Designer-Knowledge-Base/Tool-Mastery-Cross-Tab/ta-p/4368>

Text to Columns <https://community.alteryx.com/t5/Alteryx-Designer-Knowledge-Base/Tool-Mastery-Text-To-Columns/ta-p/36256>

DateTime <https://community.alteryx.com/t5/Alteryx-Designer-Knowledge-Base/Tool-Mastery-DateTime/ta-p/38302>



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Thank you

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