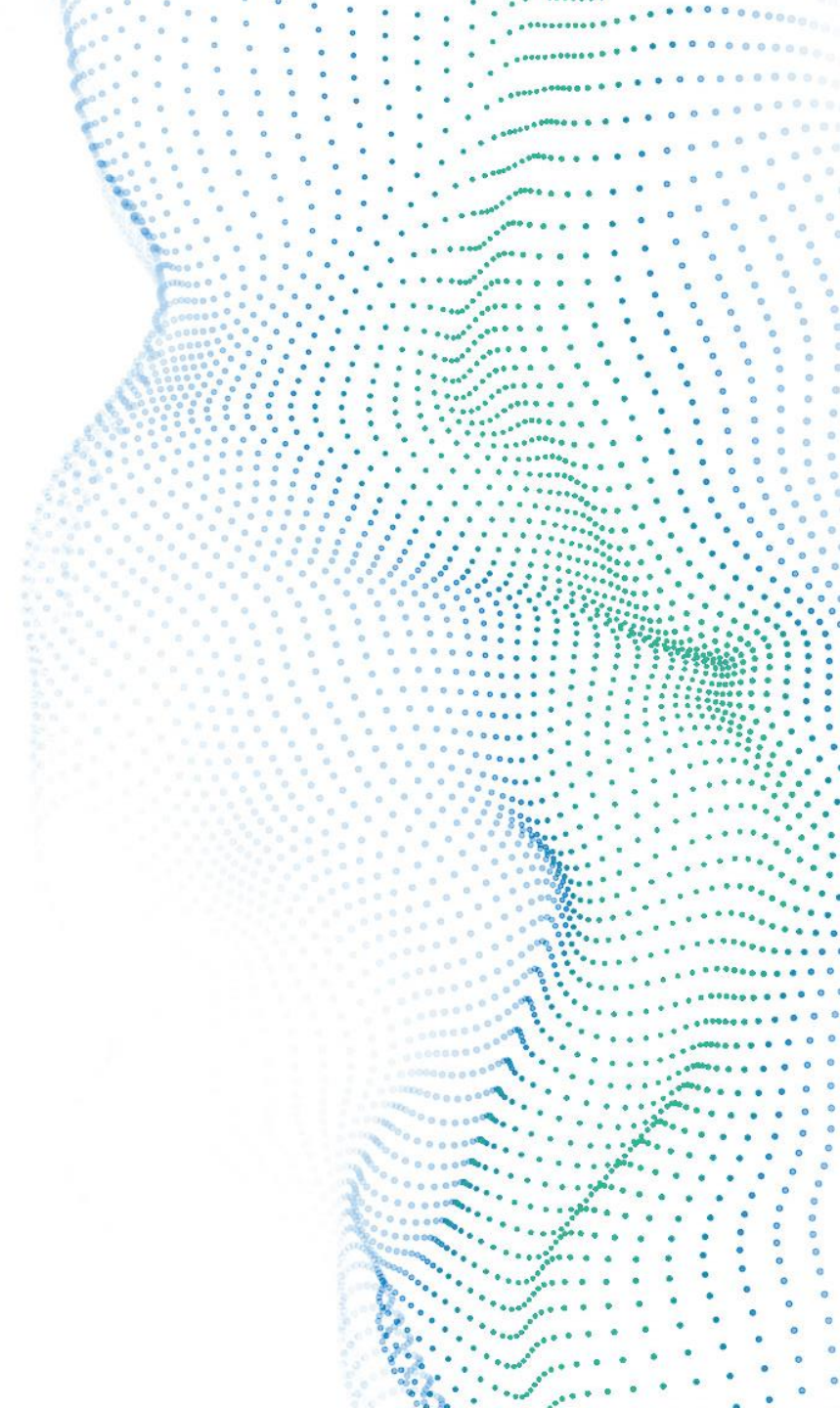




alteryx

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

Overview

Processes Covered

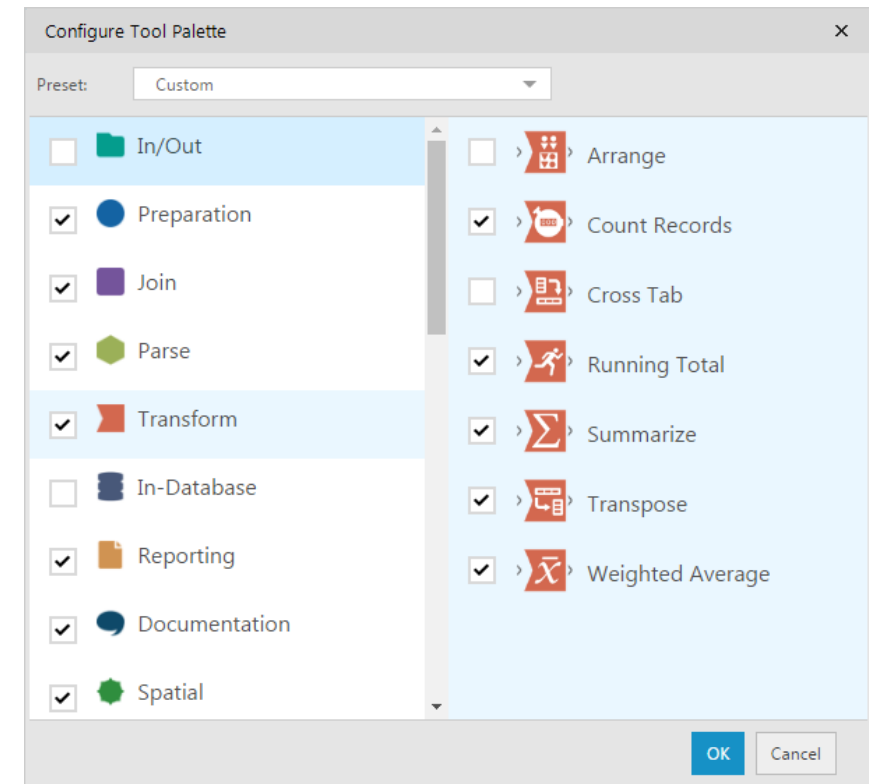
- Customizing your palette
- Workflow documentation and design techniques
- Hot-keys / shortcuts
- Workflow optimization
- User settings

Customizing the Tool Palette



CUSTOMIZING THE TOOL PALETTE

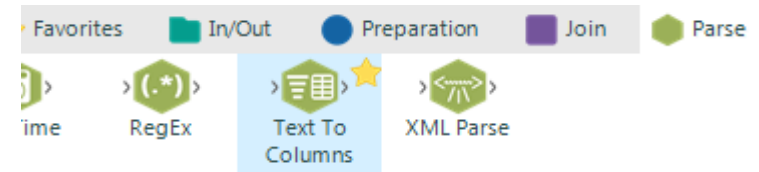
- Add or Remove Categories
 - *Favorited tools from removed categories will remain in 'Favorites'*
 - *Tools in removed categories will still appear in search*
- Select which tools are shown in each Category
 - *Favorited tools removed from a category will remain in 'Favorites'*
 - *Removed tools will still appear in search*



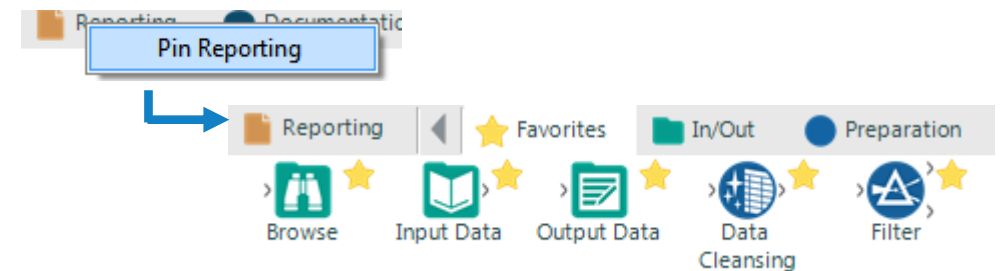
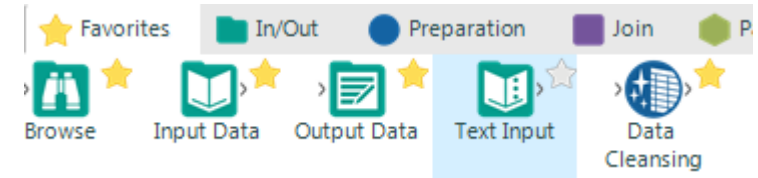
YOU'RE MY FAVORITE... OR MAYBE NOT

- Add or remove tools from your favorites by selecting or deselecting the star next to the tool
- Pin your most-used palettes to the left next to your other Favorites
 - *Right-click on category to pin or unpin*

Hello Text to Columns

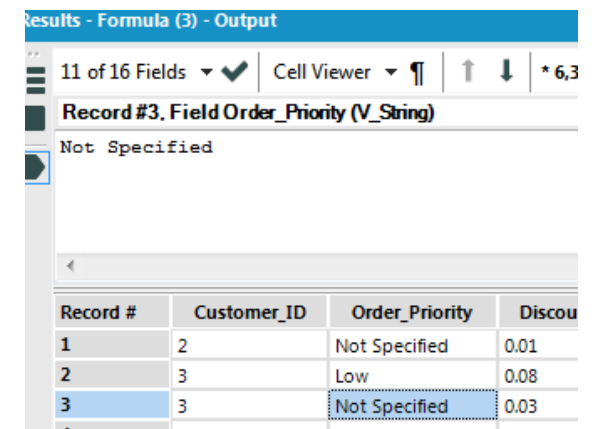
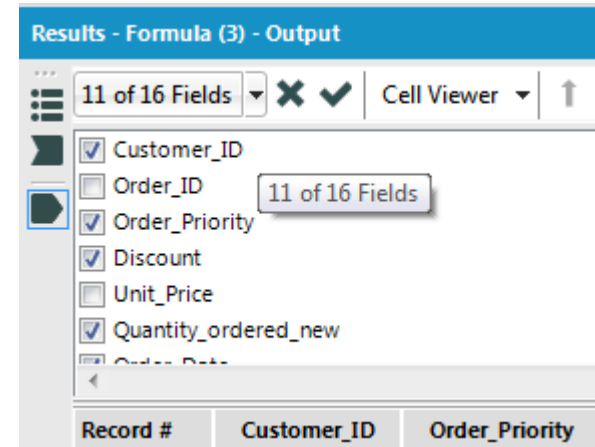


... Goodbye Text Input



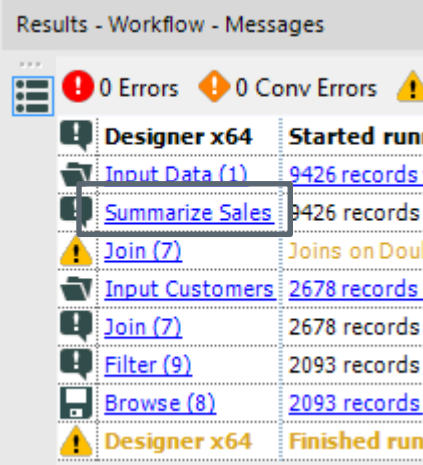
SHOW ME THE RESULTS

- Select or deselect fields for viewing in the results window
- View full contents of a cell by
 - double-clicking on cell
 - Turning on 'Cell Viewer' and selecting cell
 - *Click paragraph icon to view/hide whitespace characters*

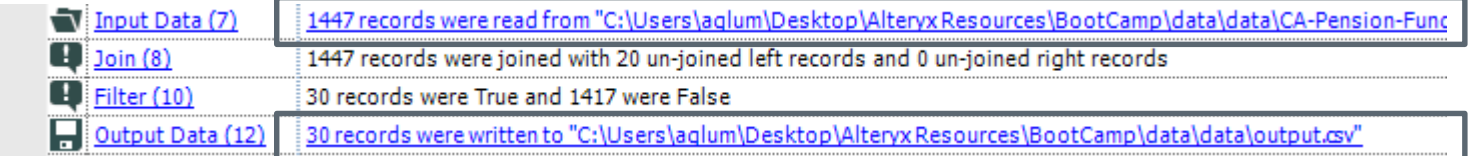


WHERE CAN I SEE THAT?

- Click the tool name link to highlight the tool on the canvas
- Click on input or output file links to open the file



Results - Workflow - Messages	
0 Errors	0 Conv Errors
Designer x64	Started run
Input Data (1)	9426 records
Summarize Sales	9426 records
Join (7)	Joins on Doul
Input Customers	2678 records
Join (7)	2678 records
Filter (9)	2093 records
Browse (8)	2093 records
Designer x64	Finished run



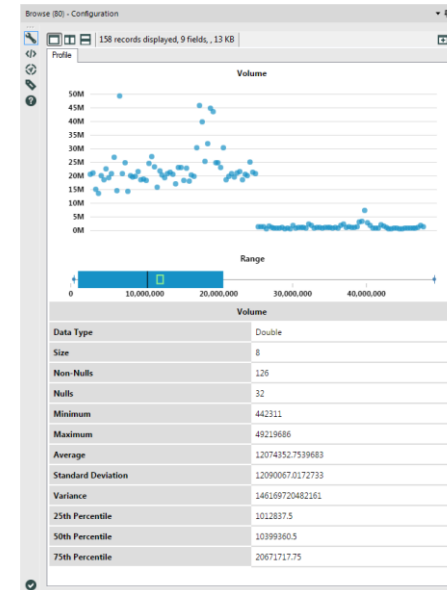
Input Data (7)	1447 records were read from "C:\Users\aqlum\Desktop\Alteryx Resources\BootCamp\data\data\CA-Pension-Func
Join (8)	1447 records were joined with 20 un-joined left records and 0 un-joined right records
Filter (10)	30 records were True and 1417 were False
Output Data (12)	30 records were written to "C:\Users\aqlum\Desktop\Alteryx Resources\BootCamp\data\data\output.csv"



BROWSE FOR MORE

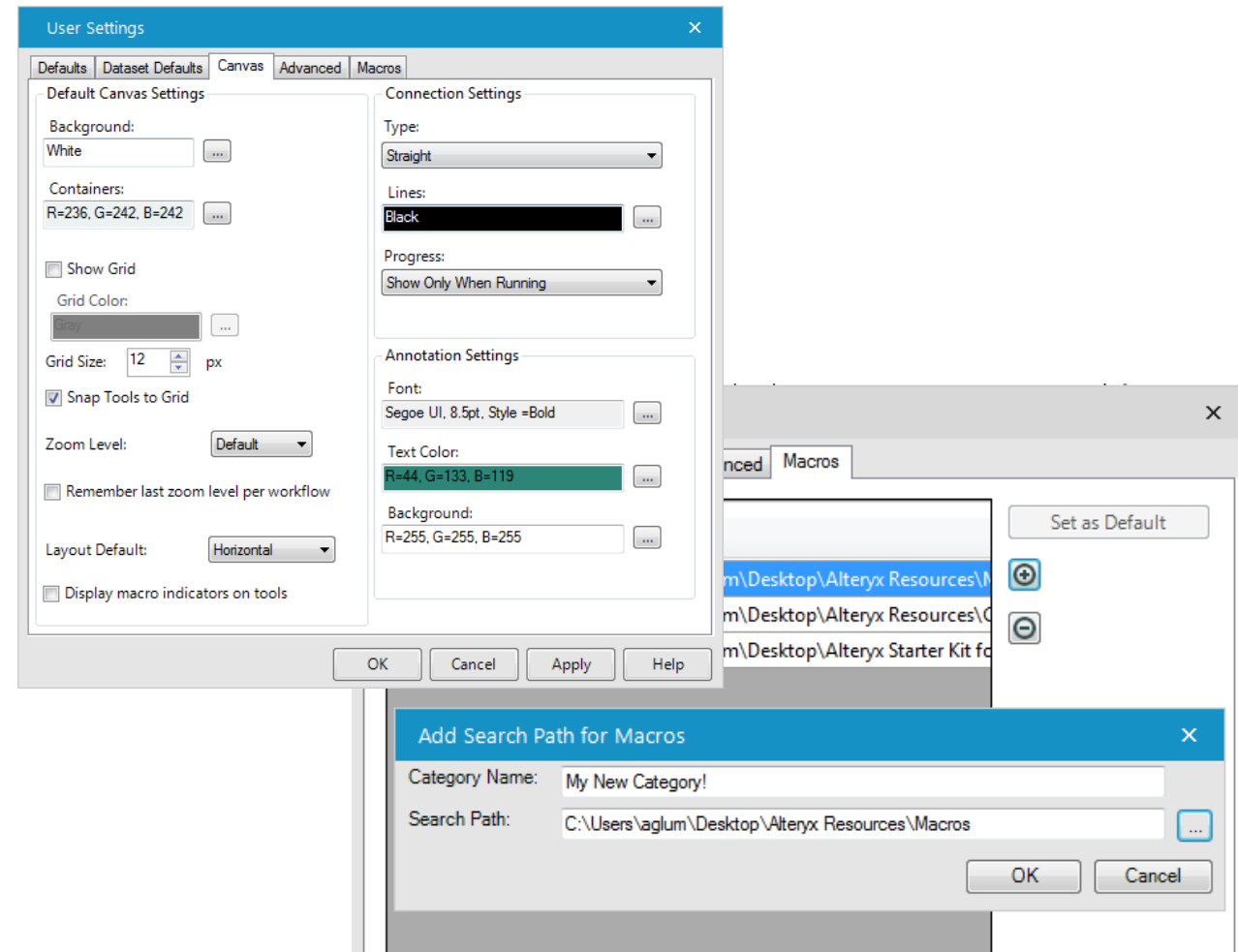
Record #	Stock Tickers	DownloadHeaders	Date	Open	High	Low	Close	Volume	Field7
1	MSFT	UTTD/1 200 OK	7 Aug 17	55.04	55.04	55.10	55.55	20400074	0x00000000

- Add a browse to
 - See at-a-glance which fields contain
 - NOT OK values
 - NULL values
 - EMPTY values
 - OK values
 - View a data profile for each field
 - Open in new window
 - Copy or save data



USE YOUR SETTINGS – USER SETTINGS

- Options > User Settings > Edit User Settings
- Canvas
 - Background and container defaults
 - Grid size and appearance
 - Layout
 - Connection style
 - Annotation defaults
- Macros
 - Add new tool category to your palette for Macros



Moving in Designer





HOT KEYS

Press this key combo	To do this
CTRL+R	Run workflow
CTRL+SHIFT+ '+'	Align Vertically
CTRL+SHIFT+ '-'	Align Horizontally
CTRL+SHIFT+B	Add all browses
CTRL+0 (Zero)	Zoom to highlighted selection
CTRL+F	Find tool within workflow
F1	Open help page for selected tool

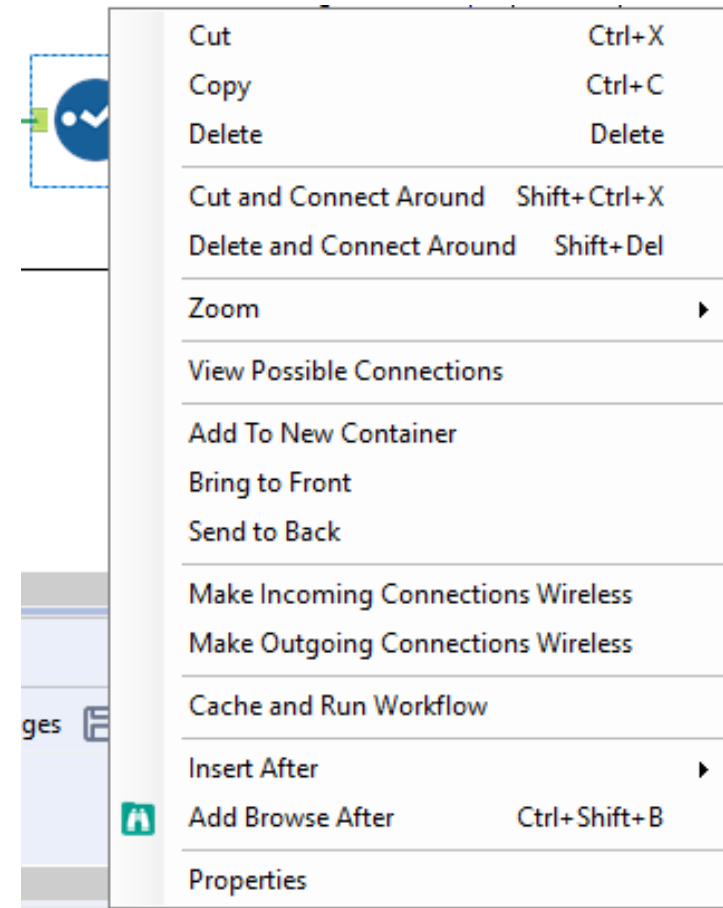


FILE TYPES

File Type	File Extension
Workflows	.yxmd
Macros	.yxmc
Apps	.yxwz
Database	.yxdb
File Types	.yxft
Zipped Package	.yxzp

RIGHT-CLICK ON A TOOL

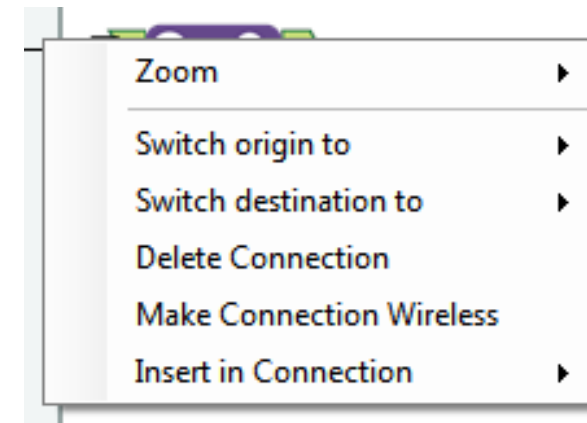
- Delete/Cut and connect around
- Zoom
- Add to New Container
- Bring to Front/Back
- Make connections wireless / wired
- Cache and Run Workflow
- Insert (Tool) After
- Add browse after
 - *If multiple outputs, you can add browses after all or a specific output*





RIGHT-CLICK ON A CONNECTION

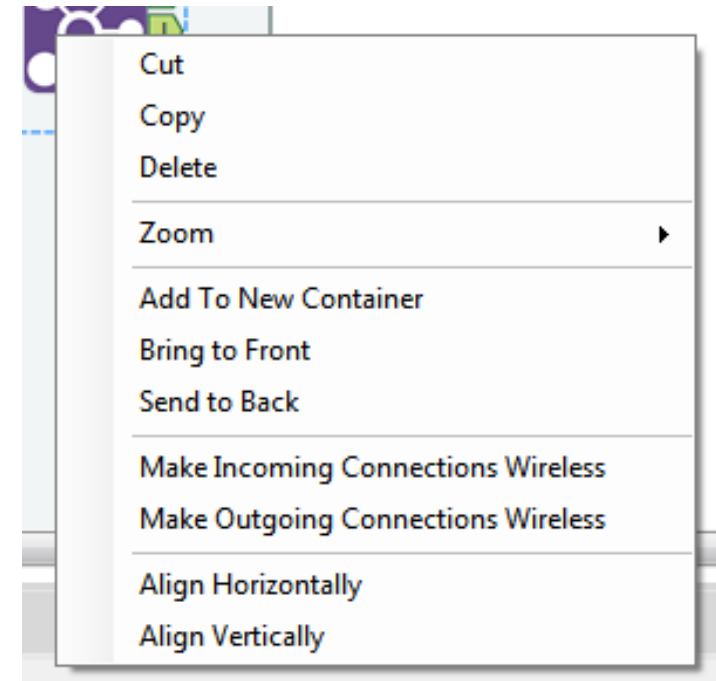
- Switch origin to
 - *If multiple output options from origin tool*
- Switch destination to
 - *If multiple input options for destination tool*
- Delete connection
- Make connection wireless/ wired
- Insert (tool) in connection





RIGHT-CLICK ON SELECTION

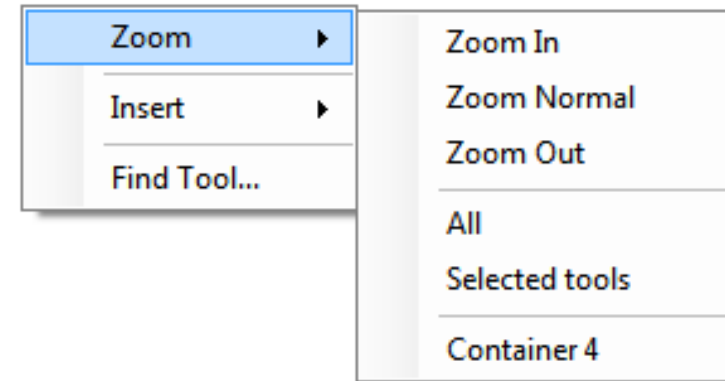
- Add to New Container
- Make Incoming Connections Wireless
- Make Outgoing Connections Wireless
- Align Horizontally
- Align Vertically





RIGHT-CLICK ON CANVAS

- Zoom
 - In, Normal or Out
 - All
 - To specific container
- Insert
 - Tool
 - Macro
- Find Tool
 - Navigate to specific tool on canvas

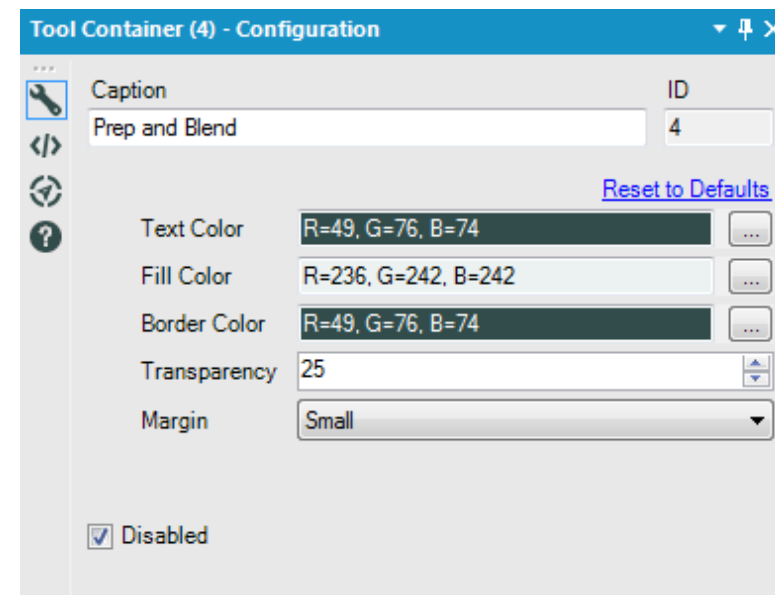
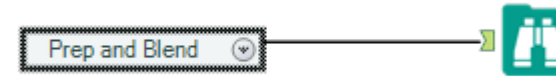


Workflow Design

Documentation techniques to keep you organized

CONTAIN IT

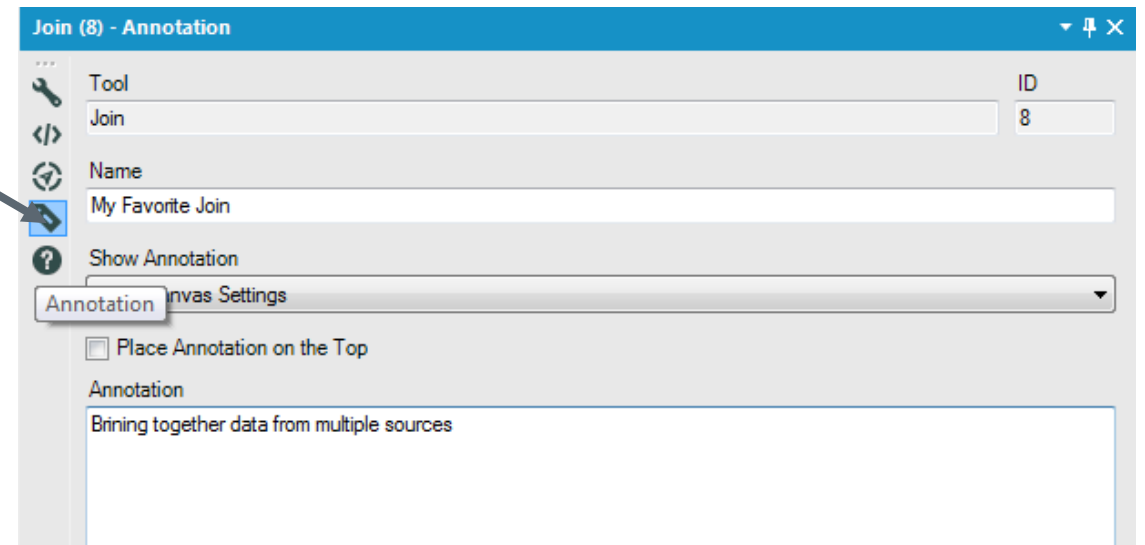
- Organize your workflow into logical groups
- Name each container to you can easily find it later
 - *Hint: Right-click and zoom to container*
- Collapse for easier viewing and arranging of your workflow
- Disable containers to prevent its contents from running





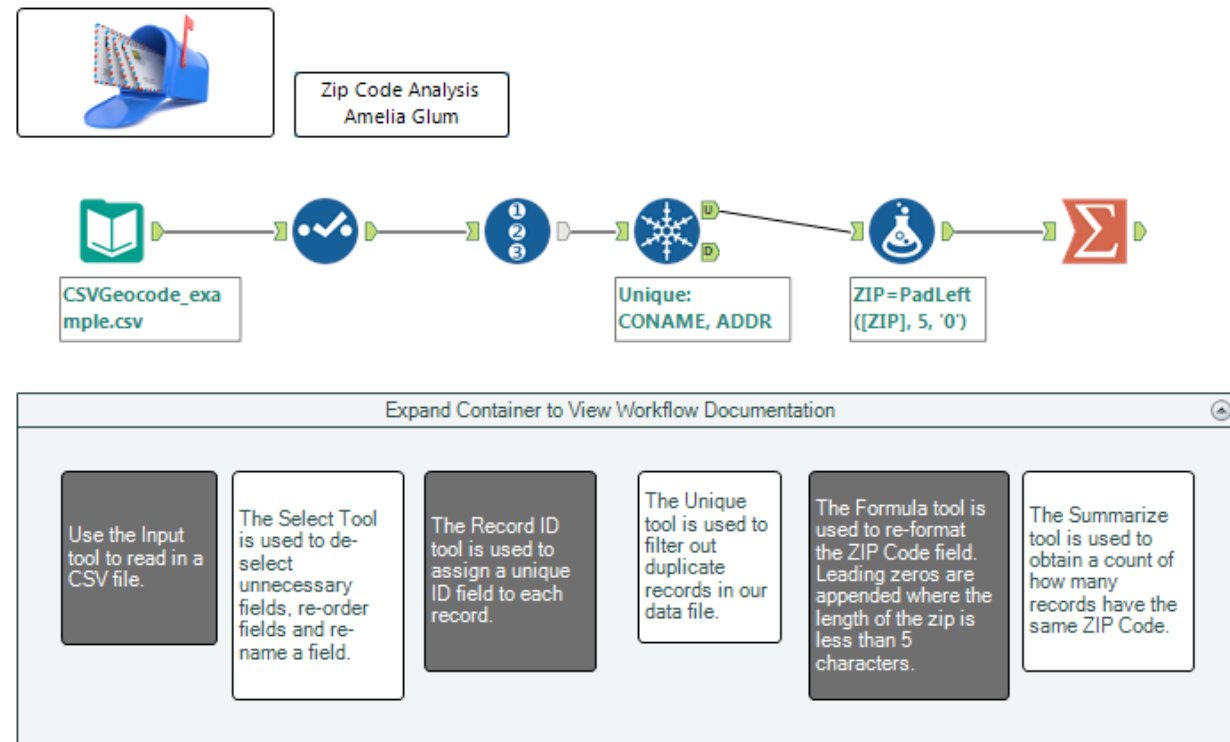
TAKE A NOTE OF THAT: TOOL ANNOTATIONS

- Click the Annotation icon in the left-side nav of configuration window
- Enter a custom tool name to easily navigate to the desired tool and identify results messages
- Add an annotation to document each step in the process



TAKE A NOTE OF THAT: COMMENT TOOL

- Add comment tools to include images and text on the canvas
- TIP! Add multiple comment tools to a tool container to easily collapse and expand workflow documentation





TAKE A NOTE OF THAT: EXPRESSION BOX COMMENTS

- Add comments within an Expression box
 - Use //Comment for a single line
 - Use /* Comments */ for multiple lines

The screenshot shows the 'Formula (2) - Configuration' window. The 'Output Column' is 'ZIP'. The formula is `PADLEFT([ZIP], 5, "0")`. Below the formula, there are two lines of comments: `//Add leading zero to [ZIP]` and `/*Add multiple lines of comments */`. The 'Data type' is set to 'V_String' and the 'Size' is 254.

```
Formula (2) - Configuration
Output Column: ZIP
Data Preview:
fx PADLEFT([ZIP], 5, "0")
//Add leading zero to [ZIP]
/*Add multiple lines
of comments */
Data type: V_String Size: 254
```

THAT'S SO META

- Name
 - Add a custom name or the workflow file name will be used by default
- Description
- Author
 - *TIP: You can set your defaults in the Author box so you don't have to type in your information every time*



Workflow - Configuration

Canvas Workflow Runtime Events Meta Info XML View

Workflow Name

Use File Name

Custom: Zip Code Analysis

Description

Find total cusotmers by zip code

URL:

Display Text (optional):

Tool Settings

Root Tool Name:

Tool Version:

Tool In-Database?

Tool Palette

Category Name:

Search Tags:

Author

Name: Amelia Glum

Company: Alteryx

Copyright:

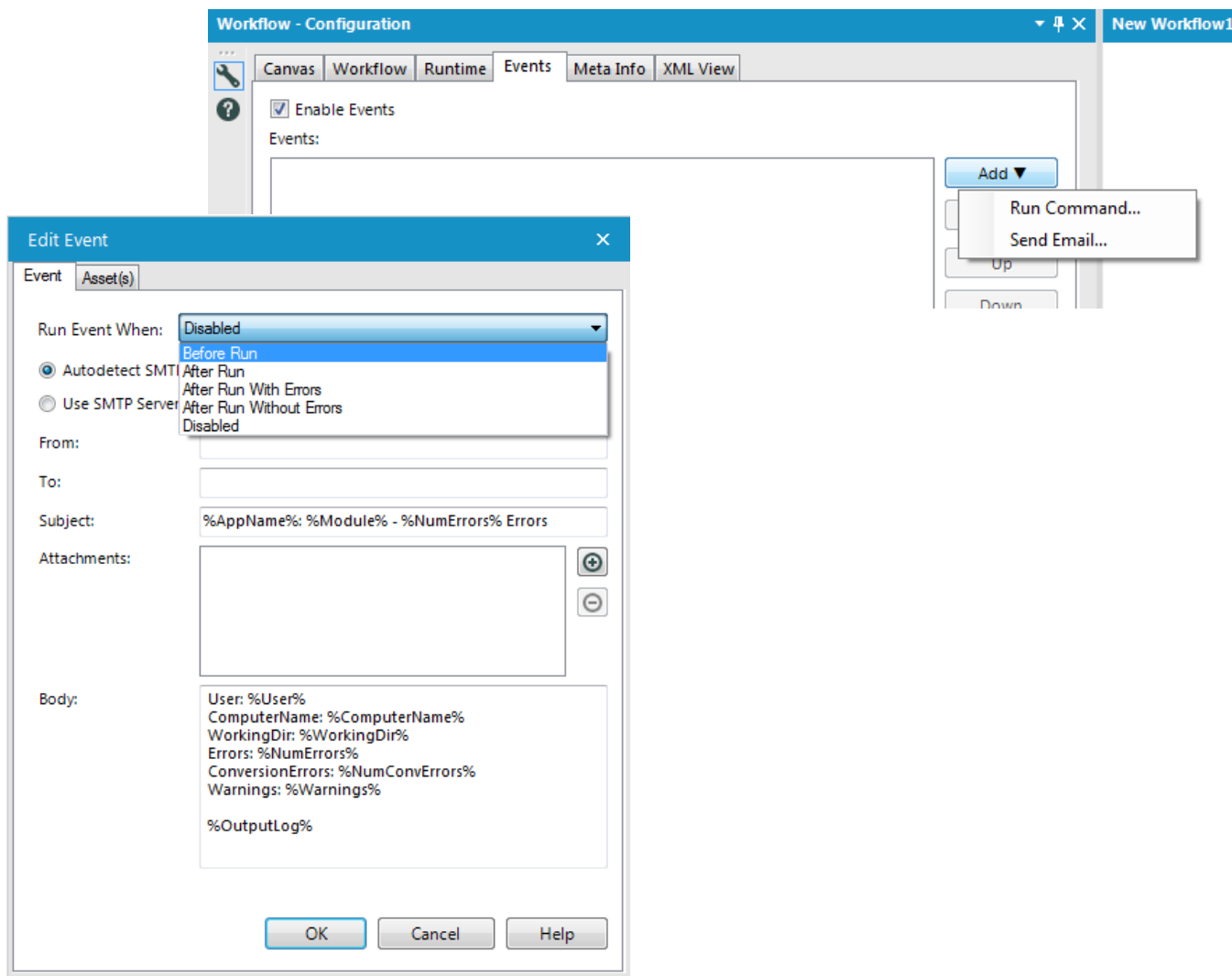
[Set to Default](#) Remember as Default

Workflow Design


But wait...there's more

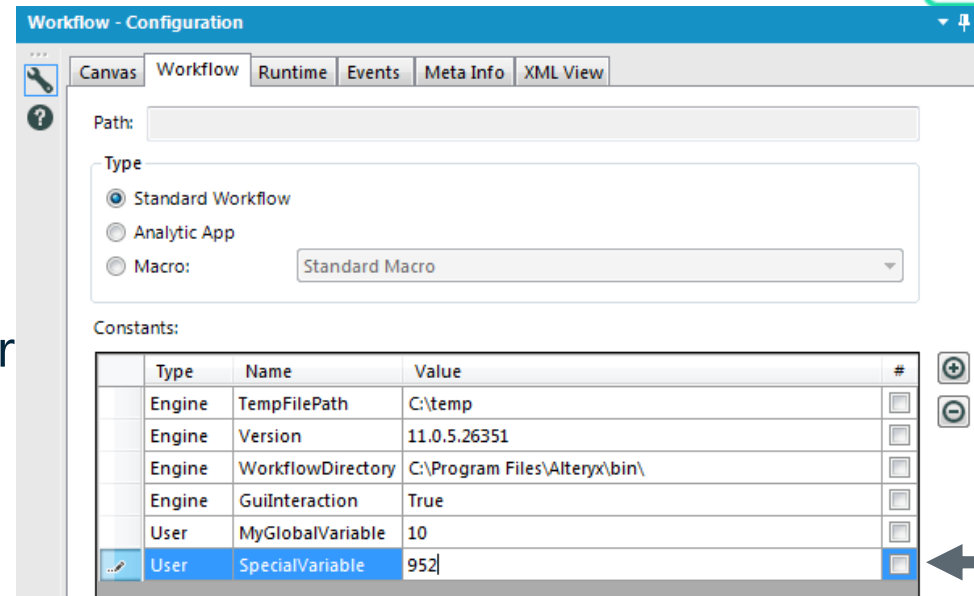
EVENTS

- Trigger an Event when
 - Disabled
 - After run
 - After run with errors
 - After run without errors
- Run Command
- Send Email
 - Add Attachments
 - Output log included in body



GO GLOBAL

- Add global variables (user constants) in your workflow settings
 1. Click the  to add a new variable
 2. Check the box in the # column if this is a numeric value
- Global variables can be used throughout the workflow and will be found under *Constants*
- You can reference them using the syntax [User.MyGlobalVariable]



Workflow - Configuration

Path:

Type

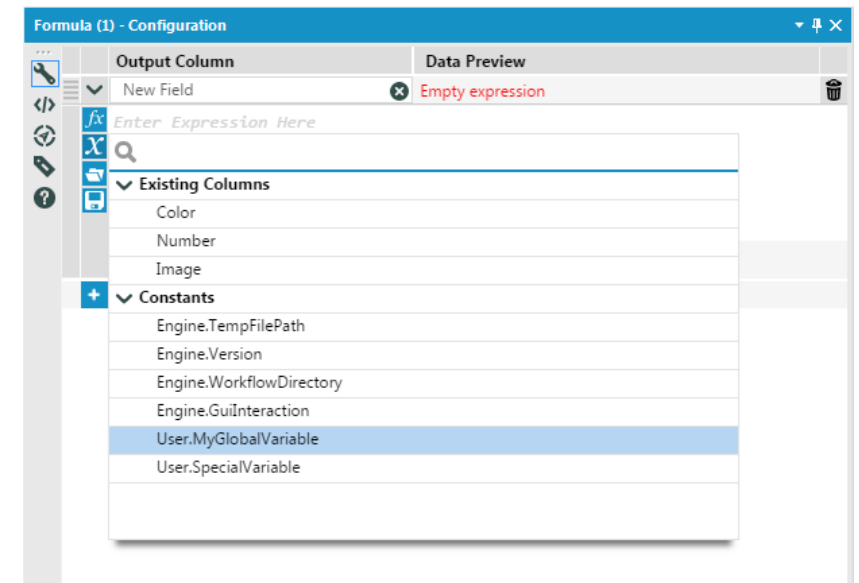
Standard Workflow

Analytic App

Macro:

Constants:

Type	Name	Value	#
Engine	TempFilePath	C:\temp	<input type="checkbox"/>
Engine	Version	11.0.5.26351	<input type="checkbox"/>
Engine	WorkflowDirectory	C:\Program Files\Alteryx\bin\	<input type="checkbox"/>
Engine	GuiInteraction	True	<input type="checkbox"/>
User	MyGlobalVariable	10	<input type="checkbox"/>
User	SpecialVariable	952	<input checked="" type="checkbox"/>



Formula (1) - Configuration

Output Column: Data Preview:

Enter Expression Here

Existing Columns

- Color
- Number
- Image

Constants

- Engine.TempFilePath
- Engine.Version
- Engine.WorkflowDirectory
- Engine.GuiInteraction
- User.MyGlobalVariable
- User.SpecialVariable

PACK IT UP

- Easily share workflows and their dependencies
- Include in the workflow package
 - Datasets
 - Custom Macros
 - *Only include macros which the receiving user does not have i.e. you do not have to include the Data Cleansing macro as this tool comes standard with Designer*

Options Help

Run Workflow Ctrl+R

Schedule Workflow

View Schedules

Run Analytic Apps

Export Workflow

Activate License Key

Manage Licenses

User Settings

Advanced Options

Export Settings

Workflow Joining_Data_Join_Tool.yxmd Encrypt

Package Location C:\Program Files\Alteryx\bin\..\Samples\en\03 Browse

Group assets by tool Undo changes

C:\Program Files\Alteryx\bin\RuntimeData\Macros\Cleanse.yxmc

..\SampleData\CSVGeocode_example.csv

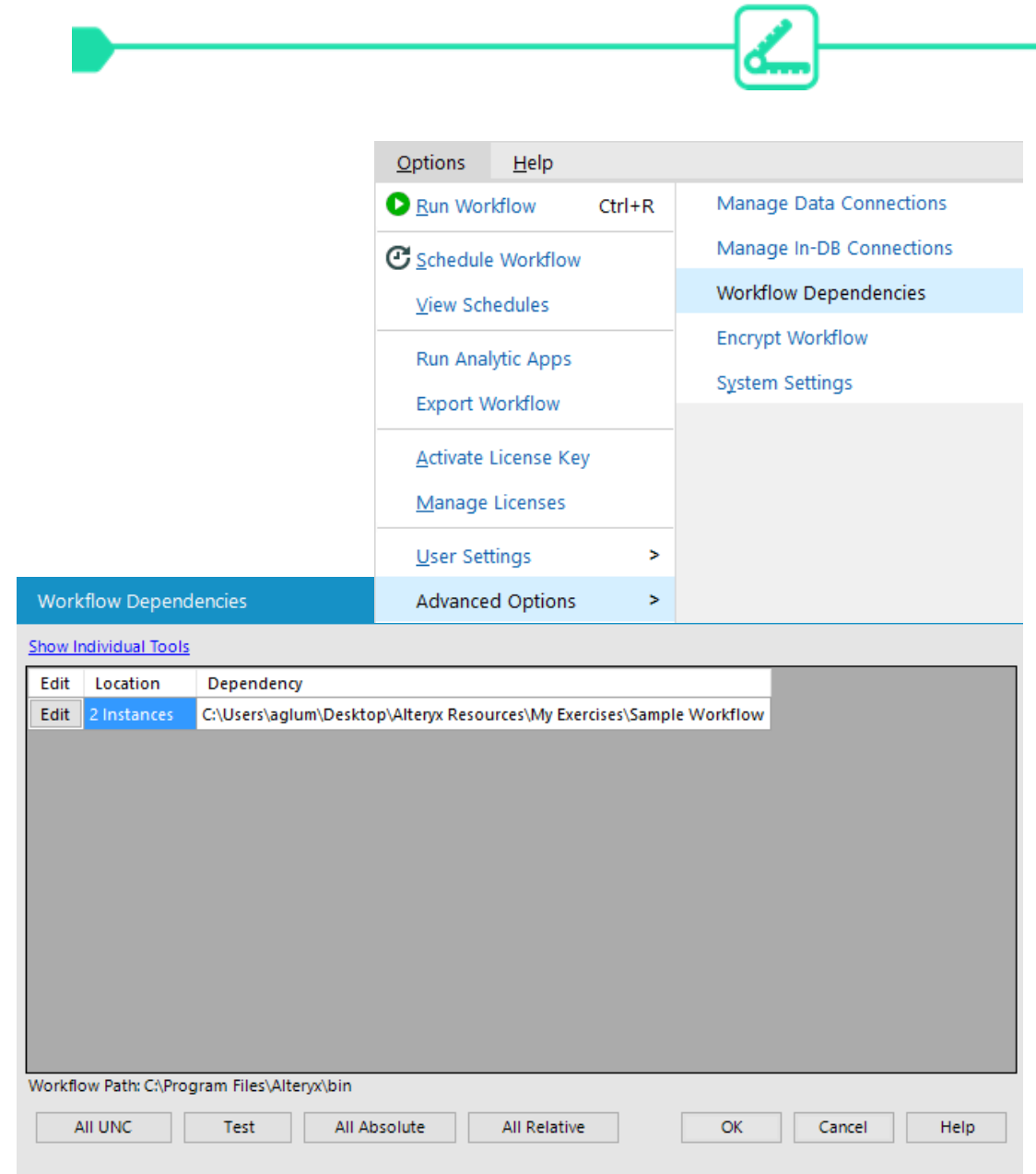
(OUTPUT) output.csv

..\SampleData\Sample_ZIP.yxdb

Save Cancel Help

IT'S ALL RELATIVE

- All Absolute
 - changes all file dependencies to an absolute path to the file location
- All Relative
 - changes all file dependencies to a relative path to the workflow location
- All UNC
 - changes all file dependencies to a Uniform Naming Convention; all mapped drives are renamed to a network resource



The screenshot shows the Alteryx Workflow Dependencies dialog box. The 'Options' menu is open, showing various settings. The 'Workflow Dependencies' option is selected. Below the menu, the 'Workflow Dependencies' section is active, displaying a table with columns for 'Edit', 'Location', and 'Dependency'. The table contains one row with '2 Instances' in the 'Edit' column and 'C:\Users\aglun\Desktop\Alteryx Resources\My Exercises\Sample Workflow' in the 'Dependency' column. At the bottom of the dialog, there are buttons for 'All UNC', 'Test', 'All Absolute', 'All Relative', 'OK', 'Cancel', and 'Help'. The 'Workflow Path' is shown as 'C:\Program Files\Alteryx\bin'.

Edit	Location	Dependency
Edit	2 Instances	C:\Users\aglun\Desktop\Alteryx Resources\My Exercises\Sample Workflow

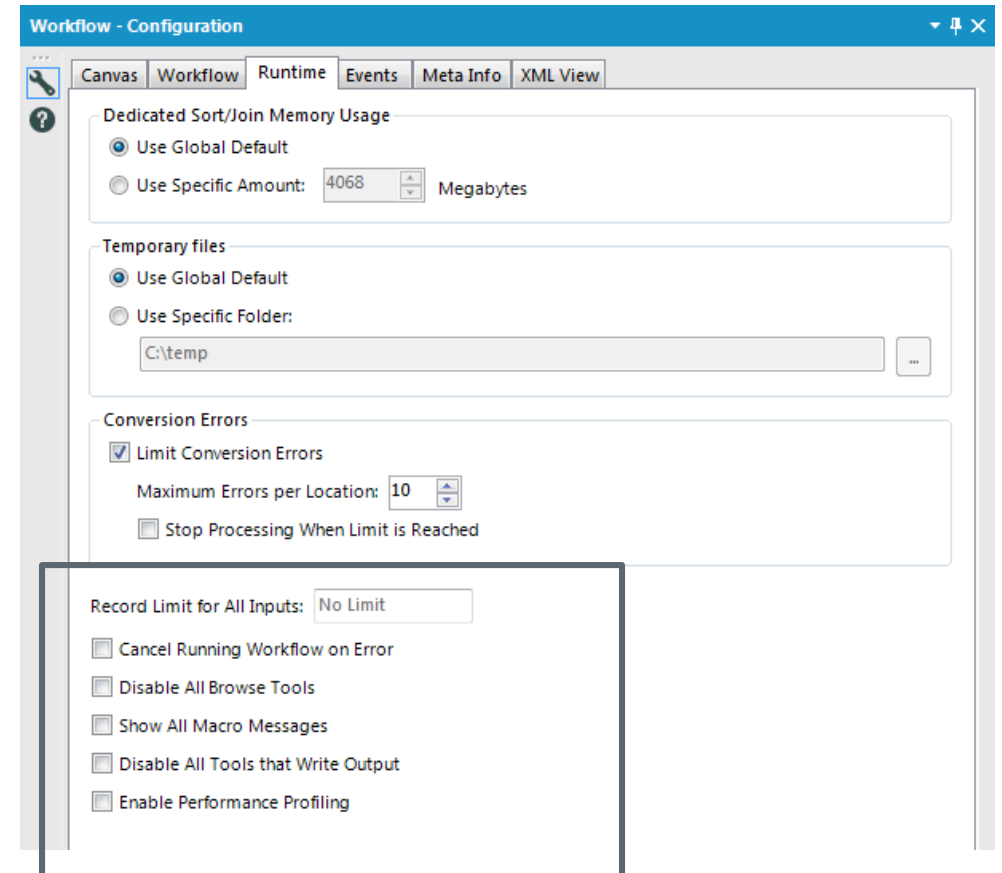
Workflow Path: C:\Program Files\Alteryx\bin

Buttons: All UNC, Test, All Absolute, All Relative, OK, Cancel, Help

Workflow Optimization

FASTER IS BETTER

- Limit records from all inputs
- Automatically stop running the workflow when there is an error
- Disable all Browse Tools
- Show all macro messages for easier debugging
- Disable all tools that write output
- Enable performance profiling to aid in troubleshooting and understand the processing time and usage associated with each tool



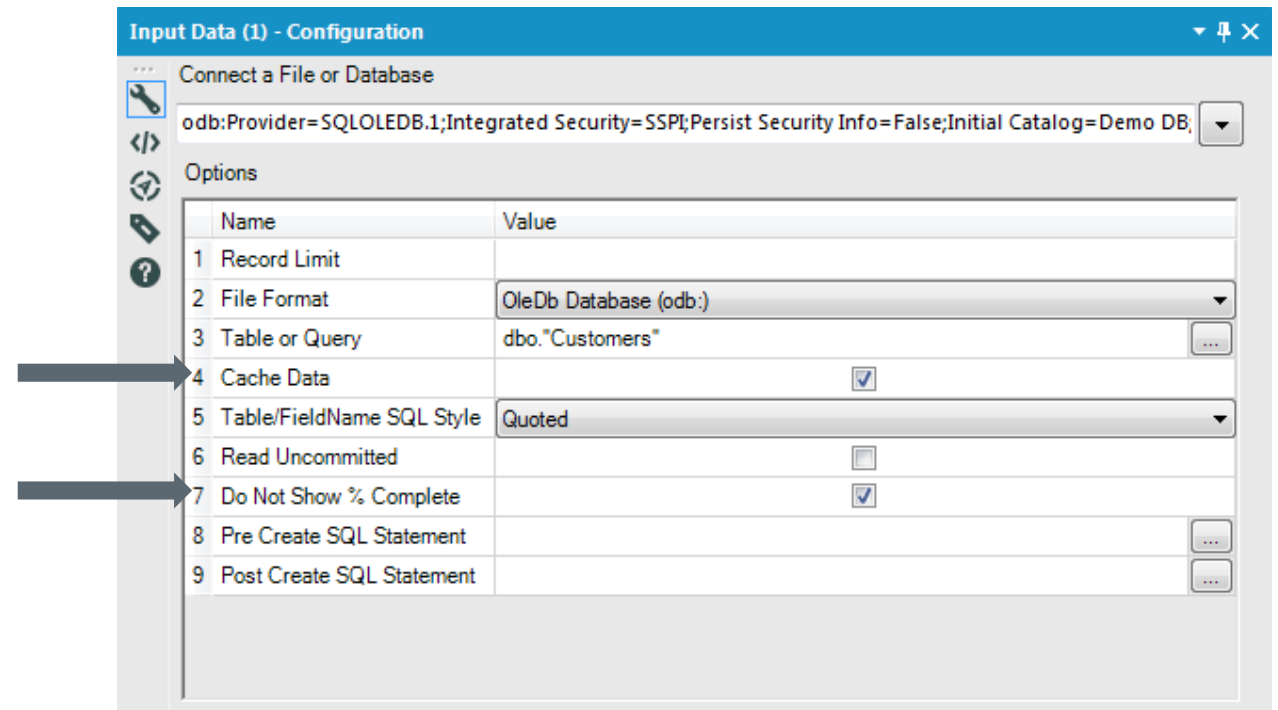


LEAN FOR SPEED

- Only use the data you need
- Use *Visual Query Builder* or *SQL Editor* to limit records and fields read in from databases
- Use *Select* tool to remove columns
 - Join, Join Multiple, Spatial Match, Find Nearest also have *select* functionality
- Use the *Filter* tool to remove rows
- Use the *Auto Field* tool to assign most efficient data type and size
 - *BONUS*: Reduce the size of your output file!

DATABASE CONNECTIONS

- Do Not Show % Complete
- For faster workflow development:
 - Cache Data
 - Record Limit (Input tool or Runtime settings)
- **Remember to use Visual Query Builder or SQL editor to remove unneeded data*



Tool Specific Tricks

Did you know you could do that?

SELECT TOOL

- Add Prefix/Suffix
- Remove Prefix Suffix
 - *Make sure to select the fields you'd like to modify before opening up the Options menu
- Clear All Renames
- Forget All Missing Fields

The screenshot shows the 'Select (5) - Configuration' window. The 'Options' menu is open, and 'Remove Prefix' is selected. A sub-menu is visible, listing various prefix removal options for highlighted field names. The main window displays a table with columns 'Size', 'Rename', and 'Description'. The 'Size' column contains the value '255' for all rows. The 'Rename' and 'Description' columns are empty.

Size	Rename	Description
255		
255		
255		
255		
255		

Options menu items:

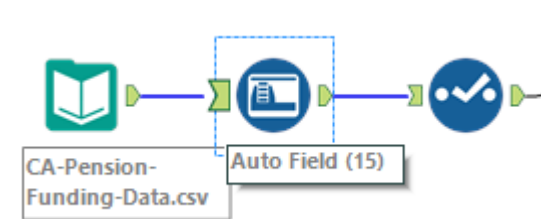
- Save/Load
- Select
- Change Field Type of Highlighted Fields
- Sort
- Move
- Add Prefix to Field Names
- Add Suffix to Field Names
- Remove Prefix**
- Remove Suffix
- Clear All Renames
- Clear Highlighted Renames
- Revert All to Original Type & Size
- Revert Highlighted to Original Type & Size
- Forget All Missing Fields
- Forget Highlighted Missing Fields

Sub-menu items for 'Remove Prefix':

- Remove "T" from Highlighted Field Names
- Remove "Tr" from Highlighted Field Names
- Remove "Tra" from Highlighted Field Names
- Remove "Tran" from Highlighted Field Names
- Remove "Trans" from Highlighted Field Names
- Remove "Transa" from Highlighted Field Names
- Remove "Transac" from Highlighted Field Names
- Remove "Transact" from Highlighted Field Names
- Remove "Transacti" from Highlighted Field Names
- Remove "Transactio" from Highlighted Field Names
- Remove "Transaction" from Highlighted Field Names
- Remove "Transaction_" from Highlighted Field Names

SELECT TOOL (CONT.)

- Save field configuration determined by Auto-field tool or manually set in the Select tool for later use
 1. (Optional) Run workflow with Auto-field tool for optimal data type and size
 2. Save Field Configuration
 3. Save .yxft file
 4. (Optional) Remove Auto-field tool
 5. Load Field Names & Types



Options ▾ ↑ ↓ TIP: To reorder multiple rows: select, right-click and drag.

Save/Load ▸	Save Field Configuration
Select ▸	Load Field Names
Change Field Type of Highlighted Fields	Load Field Names & Types

File name:

Save as type:

Options ▾ ↑ ↓ TIP: To reorder multiple rows: select, right-click and drag.

Save/Load ▸	Save Field Configuration
Select ▸	Load Field Names
Change Field Type of Highlighted Fields	Load Field Names & Types

JOIN TOOL

- All Select Tool functionality plus the ability to 'Deselect Duplicate Fields'!



Join (3) - Configuration

Join by Record Position

Join by Specific Fields

Left	Right
1 Customer ID	Customer_ID
*	

Options

- Save/Load
- Select
- Change Field Type of Highlighted Fields
- Sort
- Move
- Add Prefix to Field Names
- Add Suffix to Field Names
- Remove Prefix
- Remove Suffix
- Clear All Renames
- Clear Highlighted Renames
- Revert All to Original Type & Size
- Revert Highlighted to Original Type & Size
- Forget All Missing Fields
- Forget Highlighted Missing Fields
- Deselect Duplicate Fields**

Size	Rename	Description
8		
255		
255		
255		
255		
255		
255		
8		
255		
255		
4		
255		
254		
254		
254		

Finding the Resource



A BETTER WAY TO SEARCH

- Quickly search for related
 - Tools
 - Designer
 - Alteryx Gallery
 - Your Company's Gallery (If Available)
 - Help documentation
 - Community Articles
 - Knowledgebase, Discussions, and more
 - Submit your question if you can't find the answer!



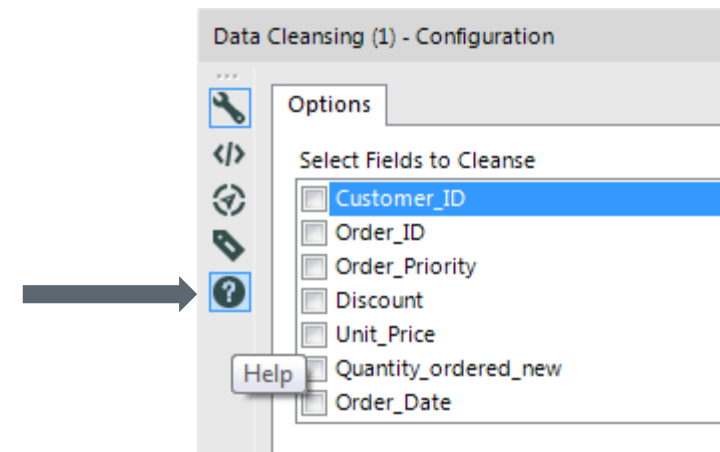
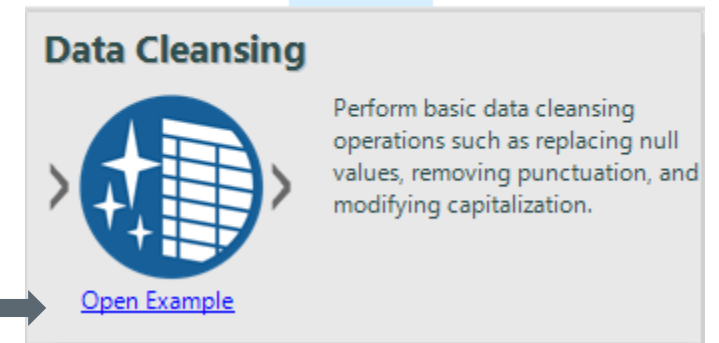
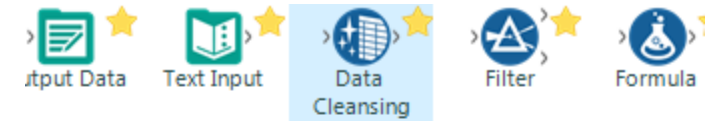
The screenshot displays a search interface with a search bar containing the text 'pivot'. Below the search bar, there are several sections of results:

- Tools:** A list of tools including Cross Tab, Transpose, Table, and Transpose In-DB. Each tool has a small icon and a right-pointing arrow. There is an 'Example' button next to the Cross Tab tool.
- Help:** A section containing links to help documentation for Pivotal Greenplum, PivotStyleMethods, Table Tool, Cross Tab Tool, and Transpose Tool. Each link is accompanied by a brief description of the tool's function.
- Community:** A section containing links to community articles such as 'Transform and pivot', 'Raw data to Pivot table', 'Pivoting the data', 'Table Tool - Crosstab/Pivot Formatting', and 'Pivotal Greenplum - Connect In-DB'. Each link is accompanied by a brief snippet of the article's content.

At the bottom of the search results, there are two links: 'View more Community results' and 'Ask the Community a question'.

WHAT'S THIS DO? TOOL FUNCTIONALITY

- Left-click on tool in palette for description
- Click on 'Open Example' link in description
 - **Not all tools have a sample workflow specific to the tool, but you may find sample workflows containing the tool in Help>Sample Workflows*
- Click on the '?' icon in Configuration window to go directly to the help page for the selected tool



MACROS FOR EVEN MORE

- Crew Macro Pack (Chaos Reigns Within)
 - www.chaosreignswithin.com
 - New macros added quarterly
 - Find through community search
 - Ex: Moving Summarize, Skip Last N, etc
- Public Gallery
 - <https://gallery.alteryx.com>
 - Macros District
 - Search for useful macros created by our Alteryx community of users!



Developer Laboratory Tableau CREW Macros CREW Test

JSON Create Moving Summarize Trim Mean Weighted Median Bivariate Theming Gauge

alteryx | ANALYTICS GALLERY

All

HOME DISTRICTS PRIVATE STUDIO STUDIOS COLLECTIONS

Districts > Macro District


Macro District

Alteryx is the leader in self-service data analytics. Alteryx Analytics provides analysts the unique, for deeper insights in hours, not weeks. Analysts love the Alteryx Analytics platform because they take the data together, then perform analytics - predictive, statistical, and spatial - using the same intuition.

Take a look at the included macros to include in your Alteryx Designer experience. The included macros are designed to help you create applications to put them to work for your business!

Do you have a macro to share? To add your macro to the Macro District, save your macro in a new description and then Publish it to the Gallery. Make sure the option to Download is selected so you can even better.

Advanced Join Alteryx Products Analytic App	Allocate Rename Fields Alteryx Products Analytic App
BB Date JP Kabler Macro	Cache Dataset Alteryx Products Macro



User Interface (UI), Documentation and Workflow Configuration: Alteryx Designer Training



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Thank you

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