



Phoenix Alteryx User Group
Tuesday 10/17/2017
API Basics
www.alteryxphx.com

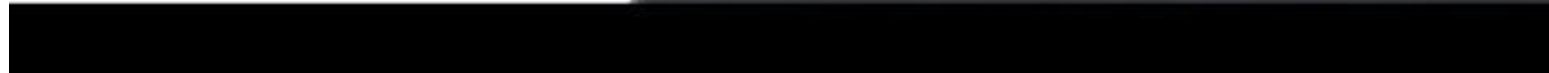
APIS

OOOOHHH, SCARY

API BASICS



What is a
Rest API?



APIS IN ALTERYX — CURL AND DOWNLOAD TOOL

<https://community.alteryx.com/t5/Alteryx-Knowledge-Base/APIs-in-Alteryx-cURL-and-Download-Tool/ta-p/31522/jump-to/first-unread-message>

HTTP REQUEST METHODS

There are four major HTTP request methods:

GET – to fetch data

PUT – to edit existing data

POST – to add the new data

DELETE – to delete data

ANSWER THESE QUESTIONS

What kind of API is it? (RESTful, SOAP, JavaScript or XML-RCP)

What data format is used in the request? (JSON, HTML or XML)

What kind of authorization is used / required? (OAuth 1.0, OAuth 2.0, HTTP Basic Authentication, None)

What functions are available for me as a developer/analyst?

DOWNLOAD TOOL



TOOL MASTERY — DOWNLOAD TOOL

The Tool Mastery Series is a compilation of Knowledge Base contributions that introduce diverse working examples for Designer Tools. We've organized the links below to help you on your journey to mastering the Alteryx Designer!

Tool Mastery Index - <http://bit.ly/2gLip2H>

DOWNLOAD TOOL FEATURES

The Download tool will retrieve data from a specified URL to be used in downstream processing or to be saved to a file. The Download tool can also download or upload data via FTP and SFTP.

- [FTP Upload](#)
- [FTP Download](#)
- [FTP Automation](#)
- [Connect to REST APIs](#)
- [Web Scraping](#)

GUIDE TO CREATING YOUR OWN CONNECTOR

If you require a connection to an API or web service that Alteryx does not already provide a tool for, this knowledge base article will serve as a reference guide for you to build a connector using Alteryx. This series will focus on utilizing Alteryx macros to build a tool that is a connector to a datasource, so these terms will be used interchangeably through the guide.

<http://bit.ly/2gMmC6b>

Quick links to the guides in the series:

[Guide to Creating Your Own Connector - Authentication](#)

[Guide to Creating Your Own Connector - Generating the Request](#)

[Guide to Creating Your Own Connector - Parsing API Response](#)

[Guide to Creating Your Own Connector - Handling Errors](#)

[Guide to Creating Your Own Connector - User Interface](#)

WEEKLY CHALLENGE #69 – WEB STOCK DATA

Challenge #69: Web Stock Data

<http://bit.ly/2gjngqPF> (case sensitive)

SETTING UP THE CANVAS



Field = URL

URL = <https://www.google.com/finance/historical?output=csv&q=AYX>

SETTING UP THE CANVAS



Basic Headers Payload Connection

URL
Field

URL

Encode URL Text

Output

To a Field

String

Data Encoded As Unicode UTF-8

Blob

To a File

Temporary File

Filename from a Field

URL

SETTING UP THE CANVAS



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

	Field	Type	Size	Rename	Description
▶	<input type="checkbox"/> URL	String ▾	58		
	<input checked="" type="checkbox"/> DownloadData	V_WString ▾	1...		
	<input type="checkbox"/> DownloadHeaders	V_String ▾	2...		
	<input checked="" type="checkbox"/> *Unknown	Unknown ▾	0		Dynamic or Un...

SETTING UP THE CANVAS



Field to Split: Delimiters:

Split to Columns

of Columns:

Extra Columns:

Output Root Name:

Split to Rows

Advanced Options

- Ignore Delimiters in Quotes
- Ignore Delimiters in Single Quotes
- Ignore Delimiters in Parenthesis
- Ignore Delimiters in Brackets
- Skip Empty Fields

SETTING UP THE CANVAS



Field to Split: Delimiters:

Split to Columns

of Columns:

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Advanced Options

- Ignore Delimiters in Quotes
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- Skip Empty Fields

SETTING UP THE CANVAS



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

	Field	Type	Size	Rename	Description
▶ <input type="checkbox"/>	DownloadData	V_W... ▾	1073741823		TextToColumns: Parsed from DownloadData
<input checked="" type="checkbox"/>	DownloadData1	V_W... ▾	1073741823		TextToColumns: Parsed from DownloadData
<input checked="" type="checkbox"/>	DownloadData2	V_W... ▾	1073741823		TextToColumns: Parsed from DownloadData
<input checked="" type="checkbox"/>	DownloadData3	V_W... ▾	1073741823		TextToColumns: Parsed from DownloadData
<input checked="" type="checkbox"/>	DownloadData4	V_W... ▾	1073741823		TextToColumns: Parsed from DownloadData
<input checked="" type="checkbox"/>	DownloadData5	V_W... ▾	1073741823		TextToColumns: Parsed from DownloadData
<input checked="" type="checkbox"/>	DownloadData6	V_W... ▾	1073741823		TextToColumns: Parsed from DownloadData
<input checked="" type="checkbox"/>	DownloadData7	V_W... ▾	1073741823		TextToColumns: Parsed from DownloadData
<input checked="" type="checkbox"/>	*Unknown	Unkn... ▾	0		Dynamic or Unknown Fields

SETTING UP THE CANVAS



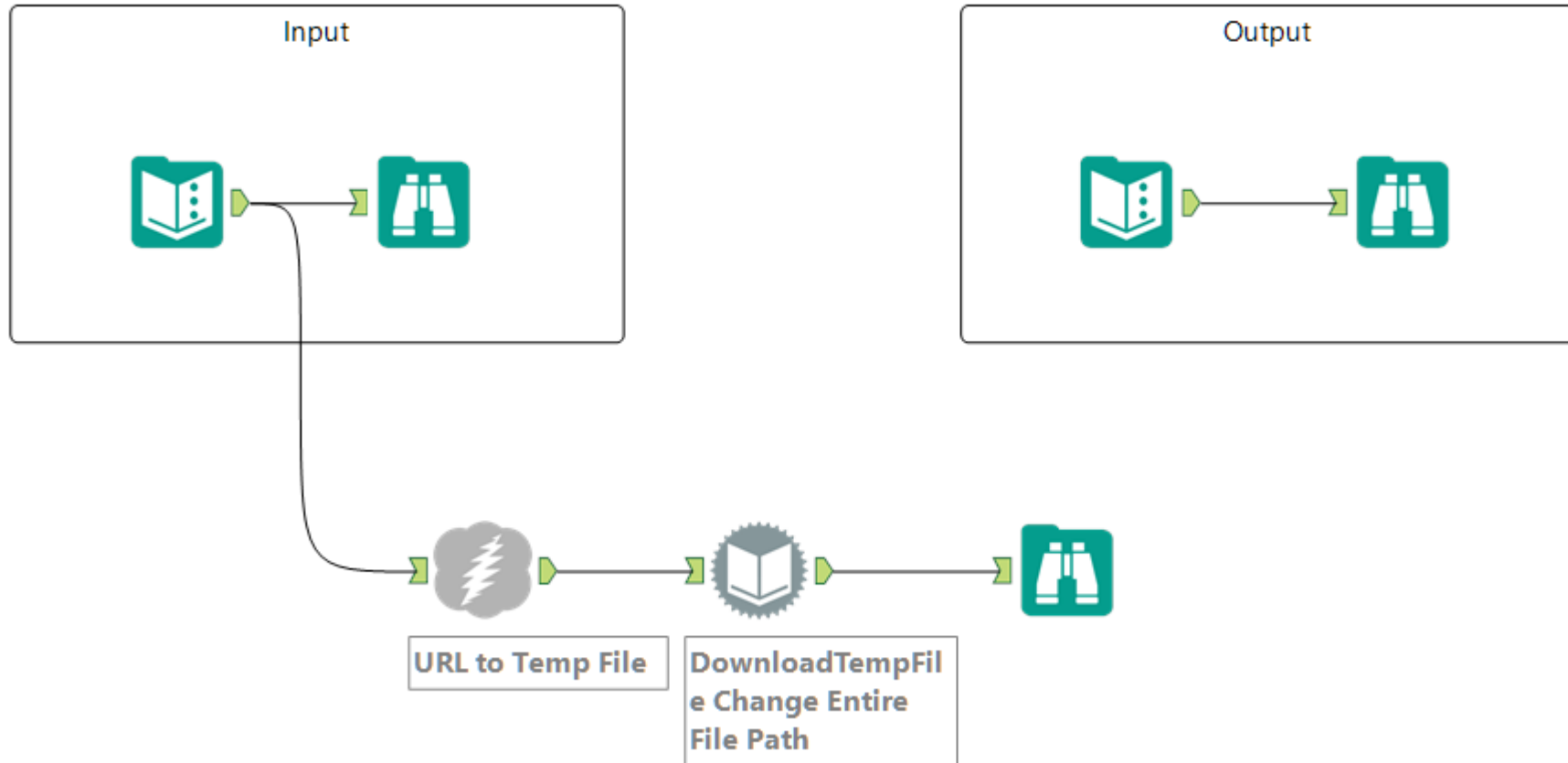
Rename Mode:

- DownloadData1
- DownloadData2
- DownloadData3
- DownloadData4
- DownloadData5
- DownloadData6
- DownloadData7
- Dynamic or Unknown Fields

Properties

if missing fields

BONUS – SLIMMING THE WORFLOW



BONUS! WEATHER DATA

We'll use the Weather Underground API Service


Find your city's weather station(s)

▪ http://bit.ly/wug_liststation (case sensitive)

Pick your state

Browse Our PWS Network

250,000+ personal weather stations across the globe already send data to Weather Underground! Browse the PWS contributing to our network:

Select a state  [View](#)

Find the Weather Station Code (example: Tempe, AZ:[KAZPHOEN521](#))

RESOURCES – API

API Concepts and Examples – <https://youtu.be/7YcW25PHnAA>

API – Web’s News and Info Resource on APIs | <http://www.programmableweb.com>

Tool Mastery

Tool Mastery – Index | <http://bit.ly/alteryxtoolmastery-index>

Tool Mastery – Text Input | <http://bit.ly/alteryxtoolmastery-textinput>

Tool Mastery – Download Tool | <http://bit.ly/alteryxtoolmastery-download>

Quandl - Source for financial, economic, and alternative datasets | <https://www.quandl.com>

Parsehub – Web Scraping Application (Free/Paid) | <https://www.parsehub.com>

Fiddler – Web Debugging, HTTP Traffic Logs and more | <https://www.telerik.com/fiddler>

RESOURCES — ALTERYX LEARNING

Alteryx Academy – Interactive Learning | <http://bit.ly/alteryxacademy>

Alteryx Training – Free Training | <http://bit.ly/alteryxtraining>

Alteryx Certification Program | <http://bit.ly/alteryxcertification>

Alteryx Weekly Challenge Index | <http://bit.ly/alteryxweeklychallenge-index>

Alteryx Lunch and Learn Series | <http://bit.ly/alteryxlunchandlearn>

Periodic Tableau of Alteryx Tools | <http://bit.ly/alteryxperiodictable>

Alteryx Community | <http://community.alteryx.com>

Phoenix Alteryx User Group | <http://community.alteryxphx.com>