Weekly Challenge

Solve the challenge, share your solution and summit the ranks of our Community!

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IDEAS WANTED

We're actively looking for ideas on how to improve Weekly Challenges and would love to hear what you think!

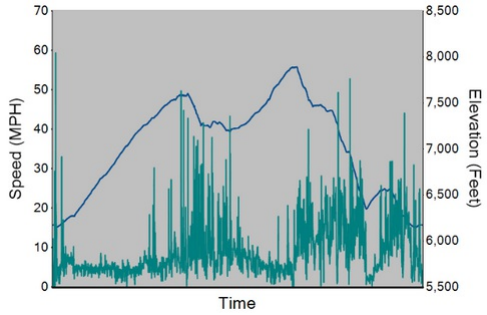
SUBMIT FEEDBACK

Weekly Challenge

Challenge #76: Strava Export Parse and Report

JoeM
Alteryx Alumni (Retired)

Strava is a popular app that serves a social network for all athletes. In particular, the app is popular with runner and cyclists. However, sometimes we want to see the data differently from what is served to us. Below is a GPX file containing a mountain bike ride I completed a few weeks ago. The challenge is to parse it and create report snippets like these:



A speed and elevation dual-axis chart

A map of the route

Feel free to try anything else on top of these! I will not be providing a starting workflow since the results are pictured above, and connecting to the .gpx file is part of the challenge!

450 KB

Data Analysis | Data Preparation | Intermediate | Parse | Reporting | Spatial | Spatial Analysis

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NicoleJohnson
15 - Aurora

My solution!

Spoiler

1 LIKE

nick_ceneviva
11 - Bolide

Solution below

▷ Spoiler

challenge_76_solution_Ceneviva.yxmd

Share 0 LIKES Reply

gnans19
11 - Bolide

My Solution

▷ Spoiler

challenge_76_solution_Gnans.yxmd

Share 2 LIKES Reply

JSaumya
6 - Meteoroid

My solution. Lengthy but gives the output!

Challenge_76_solution.yxmd

Share 0 LIKES Reply

pvara
8 - Asteroid

Hi @JoeM how did you convert the gpx file to text? I am a avid strava user and wanted to convert all of my gpx files.

Thank you

Share 0 LIKES Reply

JoeM
Alteryx Alumni (Retired)

@pvara - when I downloaded it, it simply saved it with a .txt extension since .gpx is not an accepted Community file type. You can keep it as .gpx for Alteryx and process it as if it was a text file.

Share 0 LIKES Reply

EmanueleE
8 - Asteroid

It's my first attempt to the weeekly challenge. Hope to do it in the right way.

Challenge76-v1.yxmd

Share 0 LIKES Reply

Garrett
11 - Bolide

The distance between lat/long observations divided by the time elapsed results in some pretty phenomenal speeds!

Or perhaps Joe can really climb Belcher Hill at 60mph? What's your secret Joe? Newfangled e-bike? Secret high speed chair lift?

strava_glodewyck.yxmd

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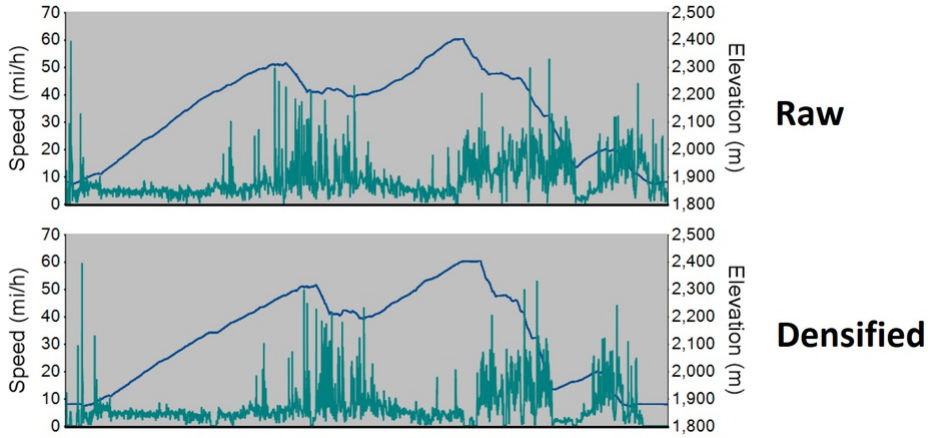
Joe_Mako
12 - Quasar

My first draft is attached (named minimal), and upon looking at the data, I learned that in the Charting tool, the Chart Type of Line does not allow us to set an X-Axis, so what it uses is the record sequence. This means if we want to use Time as the X-Axis, each record should represent the same interval if we want an accurate representation of the data. In the data provided one record only represents one second for about half the records, the visualization in the thread question does not take these factors into account. Without taking them into account, the resulting chart is distorted.

Here is an example of the difference between Raw and Densified (note that with the Densified version we can see the moments when there was no movement, speed stays at 0 for a bit of time, and elevation is flat):



Attached is my complex route with a way to densify the data with respect to each second of time, and then interpolate the coordinates and elevation. An additional chart with distance as the X-Axis was also created.

Side note, instead of using a Multi-Row Formula tool twice, one option is we can use a Join Multiple on record position keeping only records that join from all inputs, with one data stream skipping the first record. I am not sure if it is more efficient than multiple Multi-Row Formula tools.

▷ Spoiler

c76 complex Joe_Mako.yxmd

c76 minimal Joe_Mako.yxmd

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