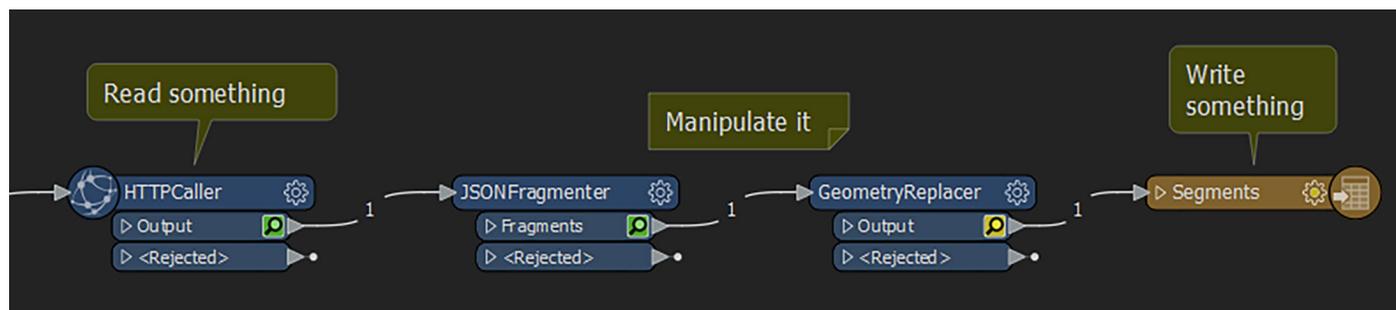


FME Tool Tips



For this month's Tips & Tricks, I am turning the column over to a guest writer, Mr. James Parker, with Dewberry Geospatial and Technology Services group. James joined Dewberry several months ago and was anxious to share some software tips he had developed with a previous firm. As I am always looking for alternative ways to perform GIS tasks, this seems like a perfect opportunity. (I also encourage others to contribute to this column with your personal favorites.)

FME (standing for Feature Manipulation Engine) is my favorite spatial data ETL (Extract, Transform & Load) and automation tool. It's developed by Safe Software – no they're not an antivirus company – who'll tell you it does far more than convert GIS data from one format to another. And if you're a seasoned user you'll know that to be true.

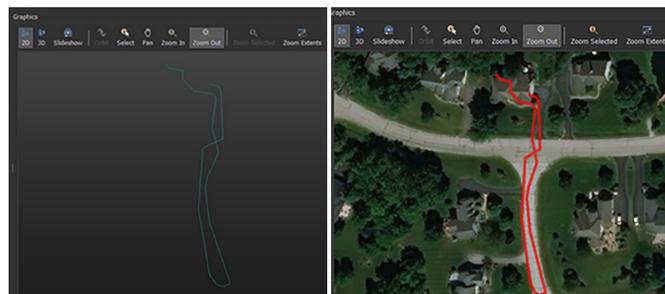
I only started using FME about three years ago whilst working for a very large energy firm. Before I took the job, I exaggerated my experience with FME, which was pretty much limited to using Esri's Interoperability extension and making a 'Hello World' workbench. But I soon learned my new employer used FME to automate pretty much everything, and I was going to be spending a lot of time with my head in a workbench. Did I get away with it? I think so. Luckily workbench is very intuitive. It's essentially a drag and drop model builder. The basic workflow follows the format: (1) You usually read some data, (2) manipulate that data, and then (3) write it somewhere else. When you've debugged and tested it, you can set it up to run on a schedule and reach for the hammock. This image below is me reading data about a jog I did from Strava.com, turning JSON into a polyline, and writing to a feature service on ArcGIS Online. Easy!

So... here are my Top 5 tips for using FME (not necessarily in order):

1. **Keep your workbench clean!** Write every workbench as if you'll hand it over to someone who knows nothing about the data or problem set. Use Annotation liberally. Use bookmarks to group transformers. Collapse those

groups if it makes the workbench easier to view. Instead of having crazy long connector lines, tunnel them straight to where they're headed (right click > Create Tunnel). Or at least add some vertices so lines don't cut across everything else. Use junctions to bring connection lines back together before they go into transformers. You'll be glad you did all this when you open a workbench you haven't seen in a while.

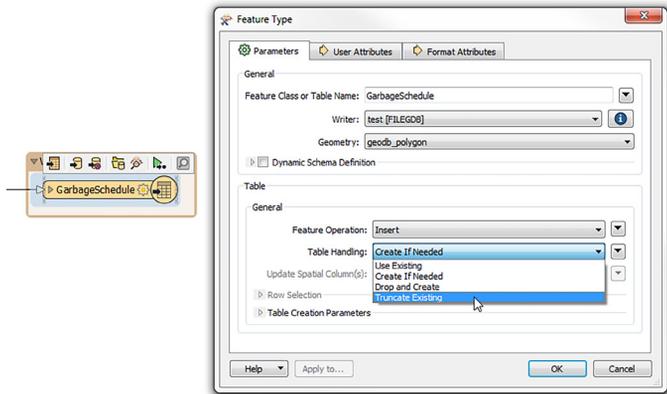
2. **Apply your style.** Change the theme, label colors, connector line shapes and more. Go into Tools > FME Options > Appearance and setup things how you like them. You'll see from my screenshots I like the dark theme.
3. **Setup some background maps to the Graphics view.** You can preview your data on a map at any stage of your model. But by default, there is no base map. Spend a moment setting up your favorites from some of the most common in-built sources. Right click Graphics View > Background Map. The squiggly feature on the left could be anything, anywhere. By adding a basemap I can see it's a short neighborhood walk, projected correctly.



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5. **Mind that table handling.** When writing records to database tables FME gives you a few options - choose wisely. You can drop and recreate tables, append to tables or truncate records in existing tables. I often use database tables as the source for web services. A common problem is accidentally breaking your web service by dropping a table with FME, instead of appending or truncating.



6. **Ctrl + E.** Highlight and disable whole strands of your models with this keyboard shortcut. You'll do this all day long.

BONUS TIP: I picked up lots of tips and tricks along my short journey with FME. I learned through trial and error, by asking colleagues, and by using the Safe FME community. The latter is loaded with forum postings, FAQs, sample workbenches and lots more. **Check it out** <https://knowledge.safe.com/>.

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