# Introduction to FME for GIS Users

Course Length: 2 days
App: FME Flow 2026

## Overview

Every GIS team has data-preparation tasks they repeat every week, month or delivery. FME lets you build the process once and run it the next time new data arrives.

This two-day course teaches GIS professionals to use FME Form to connect, transform and deliver spatial and nonspatial data without writing code. You will start with the three building blocks of every FME workflow: readers, transformers and writers. Then you will use them on the kind of data GIS teams receive all the time: Excel inventories, CSV exports, shapefiles, geodatabases, ArcGIS feature services, KML, web tables, and files on FTP and cloud storage sites. Through hands-on exercises, you will turn coordinate tables into points, lines and polygons, convert degrees-minutes-seconds values to decimal degrees, and reproject data. You will also filter and summarize records, standardize attributes, join spreadsheets to spatial features and send SQL statements straight to a database. Throughout the course, you will check your results in Data Inspector, because a workspace that runs without errors can still produce the wrong output. You will also learn where FME fits alongside ArcGIS Pro, including how standalone FME Form differs from the ArcGIS Data Interoperability extension. By the end of the course, you will be able to build repeatable FME workspaces that turn mismatched source data into clean, GIS-ready output.

## Audience

This course is designed for GIS technicians, GIS analysts and spatial data managers who regularly receive data from vendors, other departments or outside agencies and need to clean, combine or convert it before it can be used in ArcGIS. It's well suited to people who are comfortable in ArcGIS Pro but spend too much time on manual, repetitive data preparation. No programming experience is needed.

## Choose your Track:

- Petroleum
- Non-Petroleum

## Topics Covered

- Why Use FME for GIS? – Recognize which recurring data-preparation tasks are worth automating, understand how an FME workflow moves data from source to result, and know how FME Form and the ArcGIS Data Interoperability extension fit into your ArcGIS Pro environment. (Why GIS Users Use FME; How an FME Workflow Works; Where FME Fits with ArcGIS Pro)

- Building Your First FME Workspace – Build, run and check a complete translation workspace, such as converting a shapefile into a file geodatabase feature class. Use the log and Data Inspector to confirm the output is actually correct, and use Quick Translator for simple one-step conversions. (Starting a Workspace; Connecting Inputs and Outputs; Running and Checking the Workspace; Quick Translator: Another Route for Simple Conversion)
- Adding Transformers to Your Workspace – Go beyond format changes by adding spatial transformers such as Bufferer, Clipper, Intersector and Snapper to change your data. Keep workspaces easy to follow with bookmarks, annotation and good layout habits. (Adding and Configuring Transformers; Adding Transformers; Organizing Your Workspace)
- Common Readers, Writers, and Transformers for GIS Data – Configure readers and writers correctly for Excel, CSV, geodatabases and ArcGIS feature services. Pull data from web tables, FTP sites and cloud storage, and reproject datasets so everything lines up in the right coordinate system. (Reading and Writing Common GIS Data Sources; Transformers for Familiar Tools; Working with Online Data; Coordinate Systems)
- Filtering, Summarizing, and Managing Attributes – Route features down different processing paths based on business rules, calculate statistics for whole datasets or by group, and trim your output to just the attributes the deliverable needs. (Filtering Data; Calculating Statistics; Preparing Output Attributes)
- Attribute Edits and Calculating Values – Standardize field names across many attributes at once, classify features by numeric range, remap inconsistent values with lookup tables, and calculate new values such as average daily production or barrels of oil equivalent. (Attribute Edits; Calculating Values)
- Transforming Between Tabular Data and Spatial Data –Turn spreadsheets and text files of coordinates into point, line and polygon features, including parsing and converting DMS coordinates. Go the other direction too, pulling geometry out into tables for reporting. (Transforming Tabular Data to Points, Lines, and Polygons; Transformers for Converting Spatial Data to Tabular Data)
- Merging and Joining Data – Attach the information your features are missing by joining spreadsheets, shapefiles and database tables on shared keys or by location. For example, you can link water supply sources to owner agreements or well locations to operator records. (Joining Tables; Transformers that Join Tables; Spatial Joins)
- SQL Statements and Lists – Have the database do the work by sending SQL queries that filter, join or summarize records before FME reads them. Use lists to handle one-to-many relationships, such as a single well producing from several formations. (Executing SQL Statements; Working with Lists)

## Format

In-person or virtual instruction with hands-on practice, and course materials you can keep.

## Prerequisites and Recommendations

Attendees should be familiar with the basic use of ArcGIS including the topics covered in the **ArcGIS Pro Essentials Series: Part I** course.