

# Welcome to FME Desktop

## Connect, Transform, Automate

FME (the Feature Manipulation Engine) is a data translation and transformation tool for solving problems of data interoperability, without the need for coding.

FME is often referred to as an ETL application, reflecting its outstanding performance in the Extraction, Transformation and Loading of data. While most ETL tools process only tabular data, FME also has the processing capabilities required to handle spatial data, and is recognised as a global leader in Spatial ETL.

With the capability to handle all geometry and attribute types, FME's support extends to CAD, GIS, XML,

Database, 3D, Cloud, BIM, Point-Cloud, Raster and many more.

The FME data translation process is fully automated, seamlessly converting between data type. This data translation is achieved through over 490 configurable, combinable FME transformers.

FME software is supported on Windows 64-bit, Windows 32-bit, macOS and Linux 64-bit and is available through a number of different licensing editions and models to meet your individual or organisational needs.

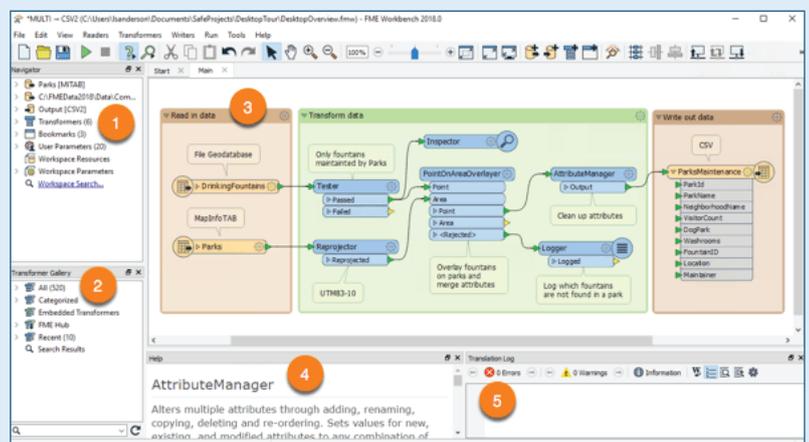
## FME Desktop. It's where you begin.

Build workspaces in a few quick clicks, support hundreds of data formats and deliver powerful integration between multiple data types. FME Desktop is made up of two key applications: FME Workbench and FME Data Inspector.

### Fme Workbench

The authoring environment where you configure and run your workspace. A workspace is the name of the workflow, includes at least one reader to pull data into the workspace, transformers to manipulate data, and at least one writer to output data. The intuitive point and click interface enables data connections to be graphically represented as a flow of data.

- 1 NAVIGATOR:** A list and definition of all workspace objects including data, feature types, transformers, and specific parameters.
- 2 TRANSFORMER GALLERY:** Contains 490+ transformers which can be added to the canvas to restructure features between source and destination.
- 3 CANVAS:** Build your workspace by adding readers, writers, and transformers.
- 4 HELP:** Displays documentation related to the selected workspace object, e.g. transformer help.
- 5 TRANSLATION LOG:** As a workspace runs, this pane updates to indicate current status and end result.

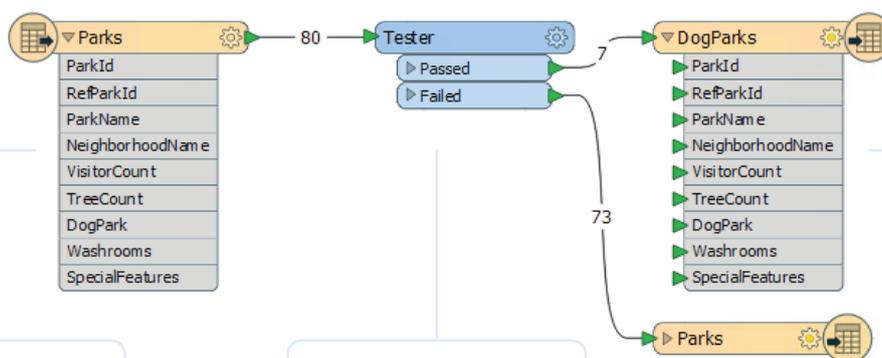


# Improve productivity, and take back control of your data.

## Readers, Writers and Transformers

A FME workspace is made up of key components, they are; readers, writers and transformers. In adding them, you must also link them together, enabling the data to travel the connected lines from left to right in accordance with the logic you have created. Each reader and writer in a workspace handles a single format of data. Multiple formats requires multiple readers and writers. Each reader and writer contains a feature type(s) and those feature type(s) contain features.

Let's take a look at that graphically:



### READER = INPUT

Bring your data into an FME workspace to get worked on.

### TRANSFORMER:

Modify the content and structure of data.

### WRITER = OUTPUT

Send the product of your workspace to its final destination/ format.

## Unparalleled support for spatial data

Get spatial data into the exact format and structure you need with FME Desktop. Using the toolsets rich data modelling capabilities, you can restructure the schema of your data as it moves from source to destination – without losing the integrity. For example, combine vector and raster imagery in a single translation, merge CAD files with an attribute database or execute SQL queries against spatial database systems.

“Prompt, professional and passionate about FME. If your organisation needs to work with data you need FME. John and the team from Locus are the local experts ready to work with you.”

– Alan Berry-Cope  
GIS Manager, WEL Networks

## Top 5 ways Locus & FME can help your company

- 1 Improve productivity by ensuring data is always up-to-date and immediately available
- 2 Overcome incompatible system issues by moving data between 400+ formats and applications (and preserve the quality!)
- 3 Save time (and money) by harnessing the power of automated workflows; your data, scheduled tasks, no manual processing
- 4 Get serious about spatial. Easily overcome the complexity of location data
- 5 No expert skills required. Anybody can learn FME and with the support of Locus, you'll be up and running in no time!

# Get serious about spatial, and overcome the complexity of location data.

## FME Data Inspector

The FME Data Inspector enables you to view, verify and debug your data at every stage of the transformation process. Typically, the process is such that you would create your workflows in FME Workbench before viewing the results in FME Data Inspector. Options allow you to inspect your data in 2D mode, 3D mode, and in a table view. Different aspects of the data can be inspected, including the following:

**FORMAT:** Is the data in the expected format.

**SCHEMA:** Is the data subdivided into the correct layers, categories or classes.

**GEOMETRY:** Are the geometry types correct and in the appropriate spatial location.

**SYMBOLOLOGY:** Is the colour, size, and style of each feature correct.

**ATTRIBUTES:** Are all the required attributes present and integrity rules being observed.

**QUANTITY:** Does the data contain the correct number of features.

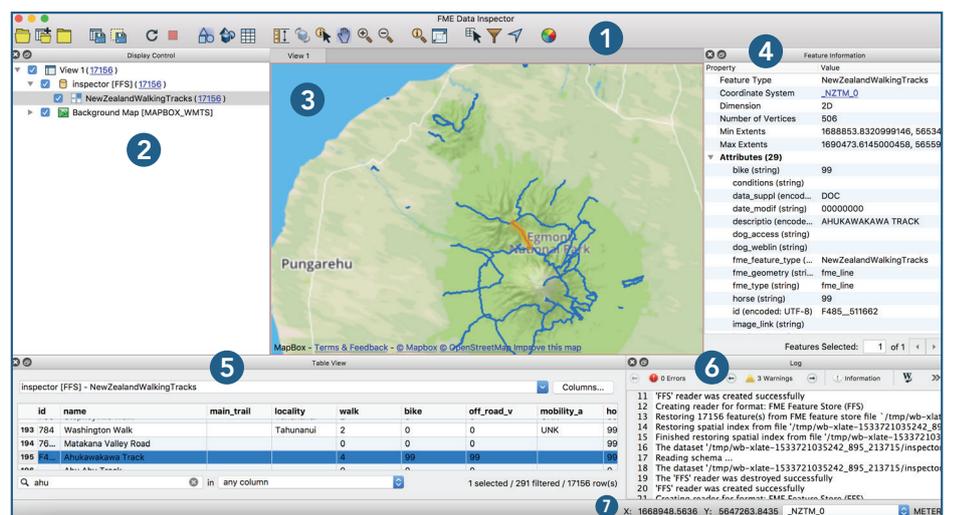
**OUTPUT:** Has the translation process restructured the data as expected.

View your data in any of the FME supported formats with **FME Data Inspector**.

Used primarily to preview data before translation or verify it after, the FME Data Inspector is closely linked to FME Workbench to send data directly to the Inspector as well as helping set-up and debug workspaces by inspecting data during the translation.

## Data Inspector Interface

- 1 Menu, Toolbar & Shortcuts
- 2 Display Control
- 3 View
- 4 Feature Information
- 5 Table View
- 6 Log
- 7 Map Co-ordinates



## FME Supported Formats

Use FME to easily move data between hundreds of apps, web services, databases and file formats. Enable the use of data in practically any application with support for over 400 formats across a range of data environments including:

- GIS
- Rasters
- Spreadsheets & tabular
- 3D & BIM
- XML
- Databases & spatial databases
- Point clouds
- CAD
- Vectors
- Cloud & web services

View all FME Supported Formats  
[www.safe.com/integrate/](http://www.safe.com/integrate/)

# Transformer Categories in FME.

CATEGORY	DESCRIPTION
3D	Create and modify three-dimensional surface and solid geometries
Calculators	Calculate a value and supply it to a new attribute on a feature
Collectors	Merge or alter data on groups of features
Database	Reproject data and handle coordinate system names/descriptions
Filters	Allow features to be routed to different destinations based on tests on feature geometry and/or attributes
Geometric Operators	Operate on the geometry of individual features or groups of features
KML	Manipulate feature geometry and/or attributes for output using the OGCKML Writer
Linear Referencing	Use linear referencing to create and apply measures to FME features
Lists	Use a list structure to handle multiple values for each attribute
Point Cloud	Create, use and output point cloud features
Rasters	Create, use or output raster data
Strings	Operate on character strings held in FME attributes
Surfaces	Operate on data which defines a 2.5D surface
Web Services	Access web services via the HTTP protocol
XML	Work with XML data

FME gives you the complete flexibility to transform your data into the data model you need. A gallery of over 490 powerful transformers let you accurately restructure the schema of your data as it moves from the source to the destination.

## Manage your data with Locus and Safe Software's FME

Locus is a team of business practitioners and FME technical experts ready to help you maximise the value of your business through better data management. As a Safe Software Partner and Value Added Reseller, we hold the unique position of being engaged solely in the sale, support and servicing of FME products; this is our competitive advantage.

## The Leadership Team



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" We're proud to be helping over 200 organisations worldwide transform the way they manage their data."

— **John Arnerich**  
Group Director, Locus

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