

# Data Integration Solutions for AEC

## The #1 Geospatial Data Integration Platform

Discover how FME can help AEC companies integrate data across systems throughout the project lifecycle, and improve stakeholder engagement by making data sharing easy and accessible.

- Reduce silos and integrate disparate data from 450+ sources including Revit, IFC, and more.
- Build and schedule repeatable workflows for QA and validation using a drag-and-drop interface.
- Bring design data into immersive environments to enrich collaboration with stakeholders.



Learn more: [fme.ly/aec](https://fme.ly/aec)  
Get your free trial: [safe.com/trial](https://safe.com/trial)

On-Demand Webinar:

### Your Data in Unreal: How to Bring Your Data Into Real-time Environments

Modern gaming engines and data integration workflows make it possible to experience your 3D datasets in fully immersive environments. This means you can explore and assess virtual buildings, landscapes, and more without having to leave your desk. In this webinar, you'll learn how to integrate your existing data, like BIM, GIS, and CAD, and bring it into Unreal Engine so anyone can experience it in a real-time environment.

Watch now: [fme.ly/webinar-unreal](https://fme.ly/webinar-unreal)

How Our Customers Use FME:



*"We wouldn't have been able to do this without FME."*

– Greg Schleusner, HOK

## HOK

HOK was faced with the complex task to build a virtual representation of a real world 130 square mile city.

Rather than hand modeling the 2 million buildings, HOK used FME Desktop to automatically generate the 3D buildings from existing data without writing any code. Using FME, they transformed and integrated BIM, GIS, CAD, and raster data, extracted subsets of data, added attribute information, and carried out calculations along the way.

FME's library of tools allowed them to execute data manipulations that weren't possible using BIM and GIS applications. The resulting workflows saved immense time and effort, while retaining intelligence from existing information.

HOK is a global design, architecture and planning firm with 1600 employees and a total of 24 offices located in North America, Europe and Asia. Its mission as an organization is to deliver exceptional design ideas and solutions for clients through the creative blending of human need, environmental stewardship, value creation, science and art.

**10,000 Customers Trust the FME Platform by Safe Software**

## ARUP

*"FME really helped to reduce the manual workloads significantly, allowing engineers to focus on other elements of design."*

– Richard Bartholomew, Arup

## Arup, Australia

In preparation for the Sydney Light Rail System expansion, a team of 8 engineers at Arup were tasked with manual 3D clash detection of underground utilities affecting the route.

Using FME Desktop, they created a workflow that integrated existing data from GIS and CAD sources, and used pre-built FME tools to build custom formats for the integration of survey and design data from 12d solutions (12da and 4d). The automated data transformation process outputs clash detection to both a 3D solids model and a web interface.

Using FME not only saved time, but utilities asset owners were so pleased with the high quality output that they requested the enhanced data to improve their own internal systems.

Arup is an independent global practice, offering services for all aspects of the built environment.



*"We deal with a whole bunch of different types of data, and that's where FME becomes a real key. I don't touch the engineer's data; I read it from FME and then convert it."*

– Tim Albert, WSP

## WSP

WSP views FME as "THE" problem solving tool. They are using it to address a wide range of production and workflow issues that were too difficult to solve with CAD or GIS software.

Using FME Desktop to build workflows and FME Server for automation and sharing, they have conceptualized 3D site plans; performed coordinate system reprojections on LiDAR data; moved data between CAD & GIS systems while performing QC; and made archival data from all projects available in a single KML file where Trimble Job Book data, Georeferenced photos, Garmin GPX data, and more can be tracked and visualized by map navigation in Google Earth or via hot links in their Excel project management spreadsheet.

FME has made these projects possible and efficient to accomplish with automated workflows.

WSP is ranked among the top 10 professional services firms in the world.



*"Our FME usage is very large. It's such a fun tool to use."*

– Tue Nilsson Poulsen,  
Silkeborg Municipality

## Silkeborg Municipality, Denmark

Silkeborg Municipality, Denmark has used FME in many areas over the last 7 years, from automated daily processes that download and transform GIS data, to complex one-off data integration and manipulation projects.

Using FME Desktop's graphical user interface, they design workflows for many purposes without writing code, such as creating a 3D city model for presenting future construction projects. They cleaned terrain data from CAD files, converted it to both triangulated irregular network (TIN) and digital elevation model (DEM), and saved the output to GeoTIFF.

They can now perform individual data manipulations as needed; re-use workflows, enabling them to routinely accept data from suppliers and partners without worrying if the data is sent in the correct file format or coordinate system; and schedule critical daily chores, saving a great deal of manual effort.

Silkeborg Municipality covers 850 km<sup>2</sup> and is inhabited by 90,000 citizens.

On-Demand Webinar:

### **BIM Workflows: How to Build from CAD & GIS for Infrastructure**

BIM workflows give facilities managers, architects, and engineers key information for better-informed infrastructure planning and management. But how do you migrate to a BIM system when your current data is stored in CAD? Through a real-world airport example, find out how CAD and engineering data can be centralized in a Document Management System (Autodesk Vault) and GIS database (SQL Server Spatial) using FME, and learn how to create BIM workflows from CAD data.

Watch now: [fme.ly/webinar-bim](https://fme.ly/webinar-bim)

