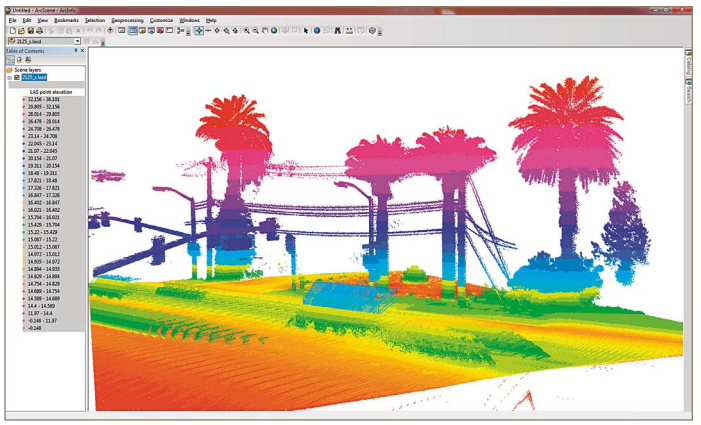
FME Solutions for Point Clouds

Access Point Clouds Within Your Spatial Data Systems

Take full advantage of the rich information stored in LiDAR and other point clouds. Use FME® to efficiently transform these complex and massive datasets into the proper format, structure and file size for use in your preferred spatial system.



A LiDAR dataset being viewed in Esri® ArcScene™ after transformation

Transform LiDAR Data to Meet Your Requirements

Quickly translate LiDAR and other point cloud data for use in practically any spatial application with FME's unparalleled format support. Convert data between over 300 spatial and non-spatial formats across point cloud, GIS, CAD, raster, database, 3D, BIM, XML, cloud and many other data types. Supported point cloud formats include:

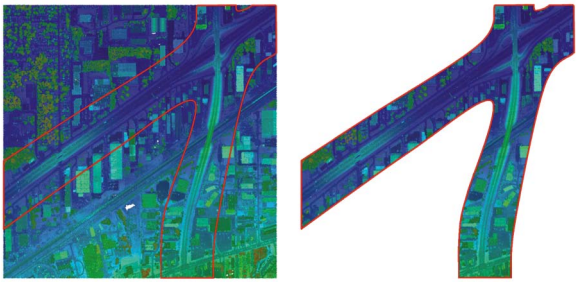
- LAS
- XYZ
- ASTM E57
- Riegl
- Bentley® Pointools POD
- Oracle® Spatial Point Cloud
- and more

Additionally use FME's library of transformation tools to manipulate the structure of LiDAR data to fit your system's precise data model and coordinate system requirements.

Extract LiDAR Data Subsets to Reduce File Sizes

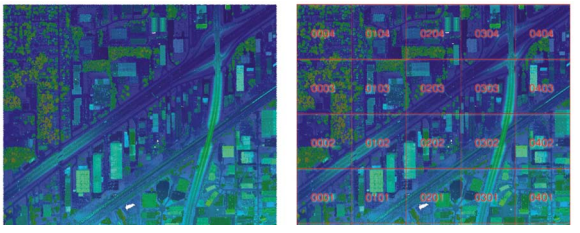
The massive volume of LiDAR datasets makes them difficult to use in most applications. Use FME's unique set of tools to clip, tile, thin, split, or filter point clouds and extract only the information you require and reduce their file size.

Clip



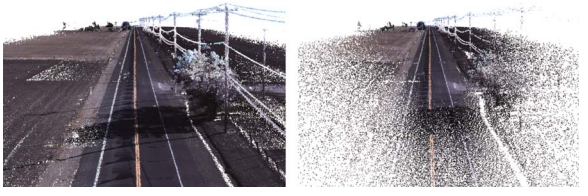
Before After

Tile



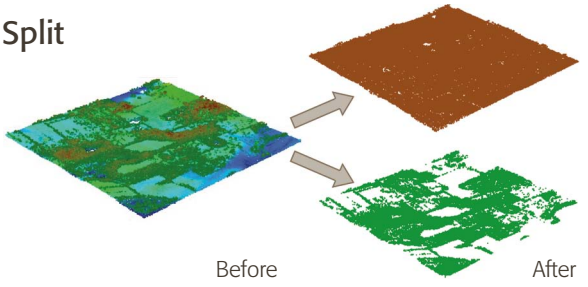
Before After

Thin



Before After

Split



Before After

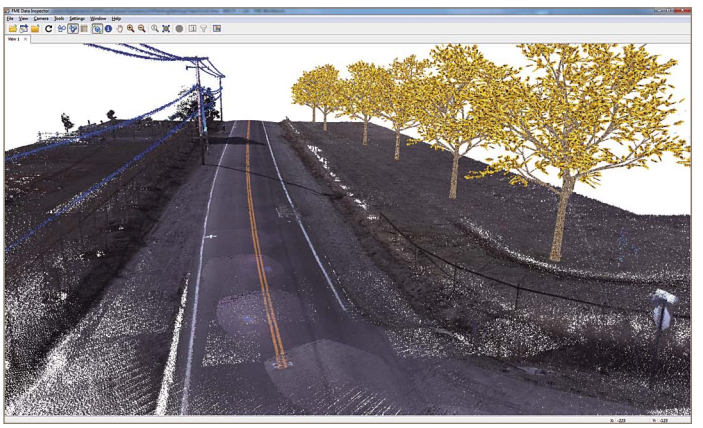
Some examples of the use of FME to reduce the file size of point cloud datasets.

Use LiDAR Datasets in More Advanced Ways

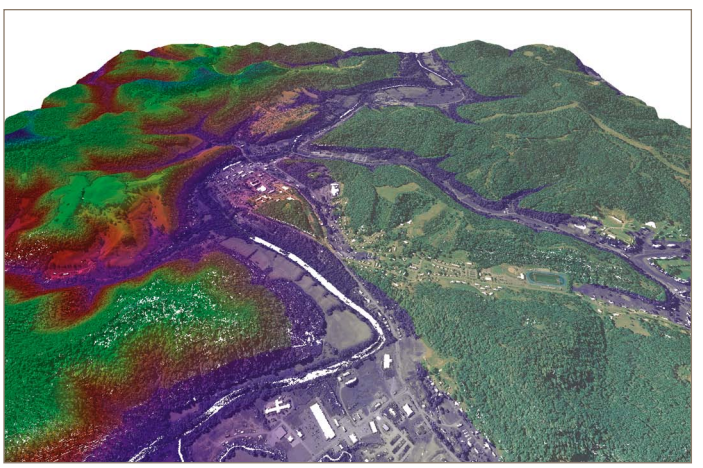
Enhance your spatial analysis processes and decision making with LiDAR by using it in more advanced ways with FME.

- Integrate LiDAR datasets with other disparate 2D and 3D data types to make value-added mashups
- Create highly accurate DEM's and DTM's overlaid with GIS, CAD and/or raster data for a more complete picture of what's real
- Evaluate and classify various components of the individual points within a dataset - including elevation, intensity and colour

Afterwards, use FME to share your value-added LiDAR creations for simple viewing by transforming them into a more public-friendly PDF or Google Maps format.



LiDAR dataset of a section of highway integrated with trees from Sketchup for visualization.

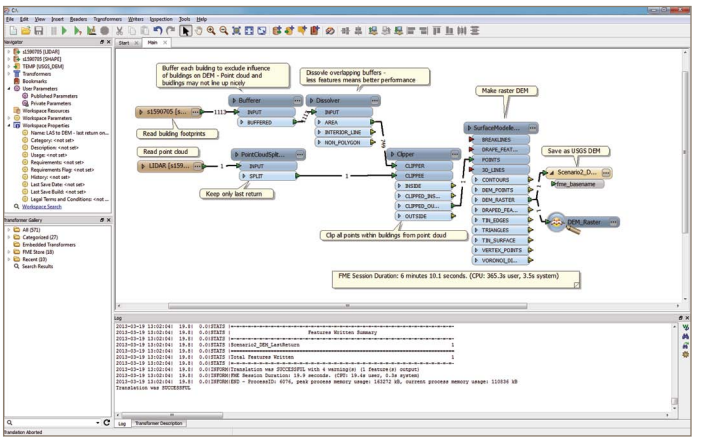


Split view of a point cloud dataset before (right) and after (left) evaluation of expected flood levels and colouring of points based on results.

Manage LiDAR Data More Productively

Instead of spending hours coding workaround solutions, use FME to quickly solve LiDAR challenges with easy-to-use tools and enhanced automation. Transformations progress in the background without manual interference, freeing your time for other projects. Additionaly, FME's high-speed performance levels - reading millions of points in seconds - ensure data is transformed in a matter of minutes, not hours.

Learn more: **www.safe.com/pointclouds**



An FME workspace that transforms LiDAR data into a DEM raster.