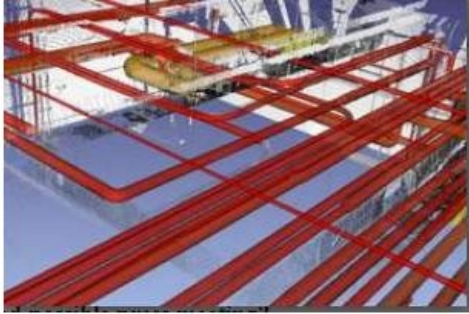


Auto Accurate Feature Geometry



ClearEdge3D (USA) has released Edgewise Plant, a software tool that automates the extraction of complex CAD geometry from 3D point-cloud data, reducing the time needed to create accurate as-built 3D plant models. The solution uses smart algorithms to identify essential surfaces in a point-cloud, discarding irrelevant data and extracting solid, accurate feature-geometry.

It eliminates the need to manually trace pipes, walls, joins, and other features, and can automatically process and extract hundreds of pipes (including centrelines), walls, structures, and other complex plant geometry in minutes. The extracted geometry can be exported via DXF into any CAD package for final modelling. Edgewise Plant works seamlessly with multiple scans, which improves the model accuracy as long as the scans are properly registered to each other. It also has very quick and easy follow-on editing tools for connecting pipe runs and full COE compatibility for Leica Cyclone users. A 2-minute video demonstration can be viewed in the online movie.

Initial beta testers report that they have cut pipe modelling times by fifty to ninety percent using Edgewise Plant.

ClearEdge 3D chief scientist Kevin Williams says they have been working at this set of algorithms for five years and discovered a breakthrough this summer. "It all starts with identifying the pipe centreline from millions of points-a particularly challenging math problem. With centreline data almost the entire facility can be identified and automatically extracted."

<https://www.gim-international.com/content/news/auto-accurate-feature-geometry>
