



Model 3D as-built pipes, structural elements, ducts, walls, tees, and conduit from point cloud data faster and more accurately than ever before.

“EdgeWise is a huge step forward in terms of capability and time savings—it’s now an essential part of our modeling workflow.” – Kevin Grover ALS, P.Eng., Practice Lead, Stantec Geomatics Ltd.

EdgeWise™ software from ClearEdge3D offers a host of modeling features and tools that help users quickly take point clouds and convert them to usable as-built, 3D plant and building models. In fact, it is the most technologically advanced as-built modeling platform in the architecture, engineering, and construction (AEC) industry. Utilizing automated feature extraction, pattern recognition technology, object recognition algorithms, and other state-of-the-art technologies, EdgeWise can reduce modeling time by up to 75%.

MEP Modeling Capabilities

For the first time, industry professionals that use EdgeWise can bring extracted ducting, conduit, and other mechanical, electrical, and plumbing (MEP) elements directly into

Autodesk® Revit® as fully functional pipe, conduit, or duct Revit families. Even rectangular ducting, complex transitions, tee joins, and mitered elbows can now be easily modeled from point clouds.

EdgeWise’s MEP tools leverage its powerful feature extraction technology to extract cylindrical and rectangular solids from laser scan point clouds. The software dramatically speeds the process of modeling accurate MEP as-builts, offering users time-savings of up to 75%.

Plant Modeling Capabilities

EdgeWise offers a host of plant modeling features and tools to bring you from field-to finish faster than ever before. Accurate automated pipe extraction, spec-driven fitting placement, billion-point visualization, and exacting quality assurance tools all combine to make EdgeWise a true end-to-end plant modeling solution.

The software is fully interoperable with AutoCAD, Plant3D, CADWorx, PDMS and others, allowing

you to bring the EdgeWise intelligent models—including structures—into these platforms with no loss of attribute data.

Spec-driven Valve, Flange Placement

Easily insert dimensionally accurate valves, flanges, reducers, or other components

into a pipe run, set to an industry specification table or a custom user-defined spec table. The latest version of EdgeWise even offers an enhanced workflow and a time-saving feature to model valves and flanges natively in Revit or Plant3D.

Steel & Concrete Modeling Capabilities

Modeling structure from scan data can be a painful process. Traditional software is slow, cumbersome and often inaccurate, leading to missed deadlines and cost overruns. EdgeWise changes all that by applying our advanced extraction algorithms and automated modeling

“EdgeWise reduced our modeling time from 15 weeks to 4 weeks on a recent project. We can’t imagine modeling the old way ever again.”

– Mark Hanna, CEO & Founder, PrecisionPoint, Inc.

“EdgeWise saved us over 240 man hours on a recent modeling project, with the automated results being spot on. There’s no way, we could have provided a competitive quote without using this software.”

- James Earl, Managing Director, OR3D, Ltd.

technologies to easily extract accurate and correctly specified steel, concrete, and wood elements.

EdgeWise's catalog library has thousands of structural components from numerous industry standards—with more to come. Once you choose a particular catalog, EdgeWise analyzes the point cloud, determines the properly specified structural member, correctly inserts the member in its proper orientation based on the point cloud, and logs it in our SmartSheet™ parts list. Even if the structural members in your project have been fireproofed, EdgeWise is able to quickly and accurately model the bare member. Structural members can also be exported directly to PDMS with no data or attribute loss.

Architectural Modeling Capabilities

Modeling buildings from scan data in Autodesk® Revit® is costly and time-consuming, to be sure. EdgeWise incorporates groundbreaking algorithms that can identify and extract some of the most common building features from point clouds and automatically create as-built Revit family objects. The model will export seamlessly to Revit as an intelligent model, saving you countless hours.

The EdgeWise algorithms have been fine-tuned to extract the maximum amount of planar features from point clouds. The latest release of EdgeWise will give you a major competitive advantage in your as-built BIM modeling workflow by automatically extracting and exporting wall and surface family objects.



Billion-Point Visualization

The new ClearView point cloud visualization engine has the ability to show billions of points in a single scene. This photo-realistic view of your project allows you to precisely verify the accuracy of your model and make adjustments with our suite of editing tools.

QA Tools Ensure Total Accuracy of Your Model

EdgeWise's quality assurance tools allow you to check the accuracy and fit of every extracted element to ensure your model is true to the point cloud. Any poorly fitted objects can be easily and quickly resized and adjusted to the points to give you precise control over the accuracy of your model.

Full Compatibility With All Scanner File Formats

The ClearEdge3D team has worked closely with all of the scanner manufacturers to ensure complete file compatibility. Registered scans can be loaded as .fls; .ptg; .ptx; .zfs; .zfrj; .e57; .tzt; .dp with more to come.

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The object recognition technology, feature extraction algorithms, and automated modeling routines in EdgeWise represent the most advanced technology development initiative in the AEC industry. Funded by two generous grants from the National Science Foundation, the EdgeWise algorithms virtually eliminate false positive extractions and model clean-up.



To request a demonstration, please contact:

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