

*“EdgeWise Structure saved us 50% out of the box.”*

- Keith McKinney, CEO, Piping Layout Consultants, Inc.

# EdgeWise Structure

*The Speed and Accuracy of EdgeWise—Now for Structural Steel & Concrete.*

Modeling steel from scan data can be a pain. Current software is slow and often inaccurate, leading to missed deadlines and cost overruns. EdgeWise Structure™, the latest software from ClearEdge3D, changes all that by applying our advanced extraction algorithms and automated modeling technologies to accurately extract steel, concrete and wood structure faster than ever before.

## **Extract Structural Members to Correct Specifications Without Point Cloud Clipping or Cleaning**

Whether you're modeling beams or angle iron, channels or round tubes, EdgeWise Structure algorithms have been fine-tuned to extract the correctly specified structural member in just a few clicks. The software's extensive library of steel members and our proprietary pattern matching algorithms mean a precise mathematical best-fit to the point cloud without having to tediously clean, clip or manipulate points.

## **Accurate Structural Extraction Even from Fireproofed Steel**

Even if the structural members in your project have been fireproofed, EdgeWise is able to quickly and accurately model the bare member.

Our advanced modeling methodology allows you to efficiently extract and precisely position a member even with heavy fireproofing.

## **Full Integration with Revit and CAD Dramatically Speeds Your Field-to-Finish Workflow**

The ClearEdge scientists worked closely with the Autodesk team to ensure full integration with Revit® software so that structural members extracted in EdgeWise are imported directly into Revit as structural family objects. This direct connection means that key intelligence, such as family type, spec, neutral axis and length, is transferred when the EdgeWise Structure model is brought into Revit. EdgeWise also exports to AutoCAD®, Microstation® and most other CAD software applications.

## **Extensive Catalog of Structural Components Creates an Accurate Intelligent Model**

EdgeWise Structure's catalog library has thousands of structural components from several different popular standards with more to come. Once you choose a particular catalog, EdgeWise analyzes the point cloud, inserts the correctly specified structural member and logs it in our SmartSheet™ parts list.



## EdgeWise Structure

### Robust Editing and QC Tools Allow for Fast and Accurate Finishing

Every extracted structural member is listed on our SmartSheet table for easy editing and QC. Extracted structural members can be extruded, moved, resized and refit using our set of easy-to-learn editing tools.

### Groundbreaking New Technology Funded by the National Science Foundation

The feature extraction algorithms and automated modeling routines in EdgeWise Structure represent a major advancement in the BIM and plant design industries.

Funded by two generous grants from the

National Science Foundation, the new algorithms at the core of EdgeWise Structure push the envelop of modeling speed and accuracy.



### New Features in EdgeWise Structure Include:

- Extract precise, correctly specified structural steel, concrete and wood members in just a few clicks – without clipping or cleaning your point cloud beforehand
- Full Revit integration imports the EdgeWise structural models directly into Revit as intelligent structural family objects
  - Quickly extract bare structural members covered with fireproofing or other coatings
  - Key structural intelligence is automatically calculated and logged in our SmartSheet table of structural members
  - Extracting QC tools to verify the accuracy of the structural model
- Easy-to-learn editing tools allow you to adjust, resize and refit extracted structural members
- Batch process up to 1,000 scans and an unlimited number of points
- Billion point visualization engine gives you a high-definition view of your project
- AutoCAD, Microstation and other CAD platforms supported in addition to Revit
- Additional structural catalogues can be easily added

