



**As-Built™**

**With FARO® As-Built™  
Software, CAD & BIM  
Modeling Has Never  
Been Easier**



**FARO®**

# Innovative Software Solutions for All Reality Capture Data Needs

FARO As-Built Software solutions are innovative and profitable tools for complete and efficient conversion of reality capture data into parametric CAD and BIM models. As-Built delivers powerful industry-specific functionality for easy, precise, seamless and efficient evaluation. The software includes three separate programs in its family of products, which can be purchased individually or as an all-in-one suite. Each program guarantees the most direct workflow from any captured reality data, such as a laser scanner. Unlike other multi-vendor offerings, As-Built offers an easy-to-use, seamlessly integrated and fast path to as-built CAD and BIM models by dramatically reducing the time for model extraction, minimizing the amount of construction rework, controlling project costs and increasing delivery quality.

## As-Built Modeler



The As-Built Modeler software makes 3D scan data accessible for all CAD programs, even if they do not support point clouds by streaming building information, such as coordinates, distances and other CAD and BIM geometry, directly into these design systems. 3D point cloud data, independent of their source (photogrammetry, stationary and mobile laser scanner, drones) and size, can be modeled into closed and proven CAD models to be exported in many CAD formats.



### Opens up Workflows for Reality Capture Data Import

- Imports data captured from terrestrial scanners, hand-held scanners, drones, mobile mapping systems and photogrammetry devices to textured meshes and views them in 2D, 3D and virtual reality (VR) with the highest detail
- Supports data from multiple vendors and guarantees best workflow experience with FARO reality capture data

### Visualizes Projects for Stakeholders

- Creates video renderings and fly-through videos from imported and modeled data

### Streams Point Clouds Directly into Any CAD System Easily

- Takes measurements and sends directly into Word, Excel or supported CAD programs
- Sends coordinates, distances and customizable macros into CAD from photo-realistic views of the 3D data

### Evaluates 3D As-Built Data for Any CAD System

- Extracts surface models from the point cloud and intersects them to proofed and closed CAD models, which can be automatically exported into any CAD system supporting common file format conversion

### Uses Simple and Intuitive Evaluation Tools

- Creates sections and slices from the point cloud and automatically extracts line models and ortho-images to create floor, elevation and facade plans
- Exports results into a preferred CAD system via .dxf file format

### Decreases Costs and Increases Efficiency

- Maximizes productivity; saves time and effort by avoiding multiple visits to the construction site
- Be confident with the final design model by overlaying the CAD/BIM model with the point cloud data

## As-Built for AutoCAD® Software

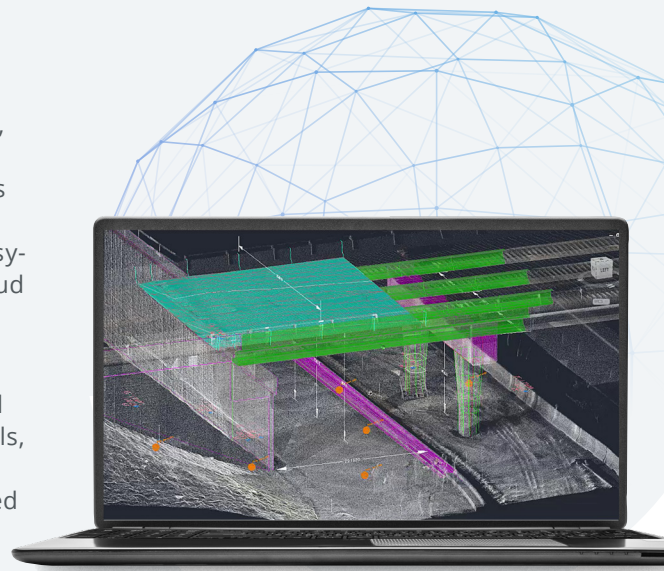


Whether modeling infrastructure design, 2D building plans, industrial and MEP facilities, excavations or calculating orthophotos from point cloud data, this software combines FARO As-Built Modeler with the additional plugin for AutoCAD to perform the job. Equipped with a comprehensive set of easy-to-handle features, the software extends the native AutoCAD point cloud functionality with versatile and useful tools for point cloud processing.

This solution also enables flexible and efficient modeling and documentation of building elements and inventory, piping systems and steel construction, terrain, and civil engineering projects such as tunnels, bridges or highways. Next to its pure point cloud functionality, the software offers photogrammetric functionality. High-definition, oriented photos (originally taken from digital cameras) support the processing of laser scanner data and allow the fast construction of 3D wireframe models and surfaces.

### Powerful Added Tools for Fast and Easy Extraction of 2D Plans and 3D Models for BIM

- Creates native AutoCAD models that are 100% usable for further design purposes
- Pairs best-fit line extraction with optional angular restrictions, which can be automatically fitted to point cloud slices; commands for drawing and dimensioning of building elements ensure quick and easy analysis
- Intelligent piping and steel models for use in plant software and BIM provides automated, intuitive workflows for modeling piping systems and steel construction; high-accuracy models of pipe runs and stacked steel satisfy design constraints of plant design software
- Provides analyzing tools for tolerance checkup, clash detections and volume computation; deviations of as-built CAD models with point clouds are visualized in configurable heatmaps, elevation plans or lists and used to verify the accuracy of modeling



## As-Built for Autodesk® Revit®



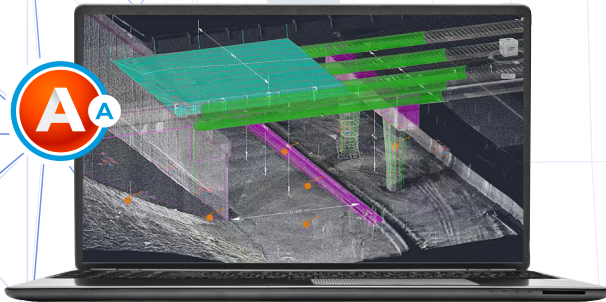
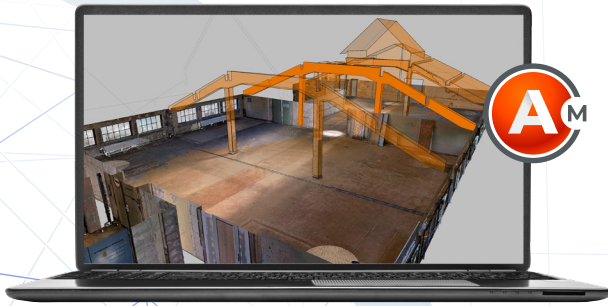
Wherever users need to evaluate 3D data to BIM models, the FARO As-Built Modeler with its additional Revit plugin is the right choice. This software package is designed for architects, engineers and general contractors who need to analyze 3D laser scan data quickly and precisely directly inside Autodesk Revit.

With customized functions for BIM model extraction from laser scanning data, alignment, editing and analysis, users are able to comply with the complete workflow around the building lifecycle. Users can efficiently model ground surfaces, walls, doors and windows, columns, beams and pillars, roofs or even pipe runs.

### Saves More Time and Money with Automated Tools

- Walls, pipes and structural elements like beams and columns can be created quickly and precisely; users can globally align, correct and fix extracted wall segments throughout an entire model; creates 100% usability of the extracted models
- Additional functions include the automatic creation of deformed floor slabs based on floor irregularity and the creation of a ground (topo) surface
- Clash detection surface analysis enables the comparison between the point cloud and the Revit model; results can be exported as profile lines or to databases, and users can perform automated detection directly in Revit to more easily inspect needed redesign of planned construction
- Users can work with laser scanner data to evaluate within the Revit family editor; creating object-specific families for doors, windows, columns or pipe accessories is simple using point cloud regions, planar scan views and true orthophotos





## As-Built<sup>™</sup> Suite

### All-in-One Solution

Why purchase As-Built programs a la carte when you can save money by purchasing the entire bundle? Make the affordable investment today and enjoy this innovative all-in-one solution. As-Built Suite is a product bundle of FARO's As-Built Modeler and its plugins: FARO As-Built for AutoCAD and FARO As-Built for Autodesk Revit. The Suite provides a complete set of powerful generic and industry-specific point cloud processing tools under one license. AEC professionals can utilize the Suite to perform intelligent feature extraction for CAD design and scan-to-BIM, creating deliverables within all CAD and BIM systems. Since all of the software tools are stored under one license, the Suite offers convenient and accessible software usage. The Suite also includes the option to license the product as a single user or your network.

As-Built adds significant value with digital design applications that use laser scanning data to increase efficiency in your workflow.

Local offices in over 25 countries around the world. Go to [www.FARO.com](http://www.FARO.com) to learn more.

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