

As-Built[™] _{Suite}

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

FARO



An All-in-One Solution for 3D Reality Capture Data

FARO As-Built[™] Software Suite programs are innovative tools for efficient conversion of reality capture data into CAD and BIM models. Unlike other multivendor offerings, As-Built offers a 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 deliverable quality.

As-Built Software Suite is a 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, guaranteeing the most direct workflow for any 3D reality capture data. Since all of the software tools are stored under one subscription-based license, the suite offers convenient and accessible software usage. The suite also includes the option to license the product as a single user across your network.

> Architecture, engineering and construction professionals use the suite to perform intelligent object extraction for CAD design and scan-to-BIM, compatible with all CAD and BIM systems.



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, as-built information can be directly transfered 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 fully compatible CAD models and be exported in many CAD formats.

Workflows for Reality Capture Data Import

- Imports data from terrestrial scanners, handheld scanners, drones, mobile mapping systems and photogrammetry devices to textured meshes and views them in 2D, 3D and virtual reality (VR)
- Supports data from multiple vendors

Visualizes Projects for Stakeholders

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

Simple and Intuitive Evaluation Tools

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

Decreases Costs and Increases Efficiency

- Avoid multiple visits to the construction site
- Have confidence in the final design model: overlay the CAD/BIM model with the point cloud data

Streams Building Information Directly into Any CAD System

- 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

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 is equipped with features that extend native AutoCAD[®] point cloud functionality with tools for point cloud processing.

This solution also enables 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 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 construction of 3D wireframe models and surfaces.

Powerful Added Tools for 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
- Intelligent piping and steel models for use in plant software and BIM provides workflows for modeling piping systems and steel construction; high-accuracy models of pipe runs and stacked steel satisfy design constraints of plant design software
- Tools for tolerance checkup, clash detections and volume computation; deviations of as-built CAD models with point clouds are visualized in heatmaps, elevation plans or lists and used to verify accuracy of modeling

As-Built for Autodesk[®] Revit[®]



As-Built for Autodesk[®] Revit[®] 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, ducts, 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 and surface analysis enables the comparison between the point cloud and the Revit model enabling users to perform automated inspection of model quality or clearence and apply a redesign if needed

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Users can work with laser scanner data to evaluate within the Revit family editor; creating object-specific families for doors. windows, columns orpipe accessories is simple using point cloud regions, planar scan views and true orthophotos





Local operations around the world. Go to **FARO.com** to learn more.

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