



Point cloud processing with Reality3D: Easy, fast, efficient.

Easy to use. Fast to learn. Efficient to work with.

rmDATA Reality3D

From point cloud to model: rmDATA 3DWorx enables you to process large point cloud data, create floor plans and views as well as BIM, 3D and terrain models in just a few, intuitive steps.

Building cross sections and intelligent automatism

- Easy derivation of sections and views from the point cloud through automatic vectorisation including line intersection and automatic detection of door/window openings
- Export the resulting elements to DWG or DXF format with just one click – including orthophotos and point cloud sections in Autodesk ReCap format

Measuring and dimensioning

- Simple, point-based measurements and automatic plane search: Measure reliable normal distances to automatically determined planes and edges as well as angles between planes without the risk of picking "through the wall"
- Set length and angle dimensions, which will end up as CAD dimension objects in the export file

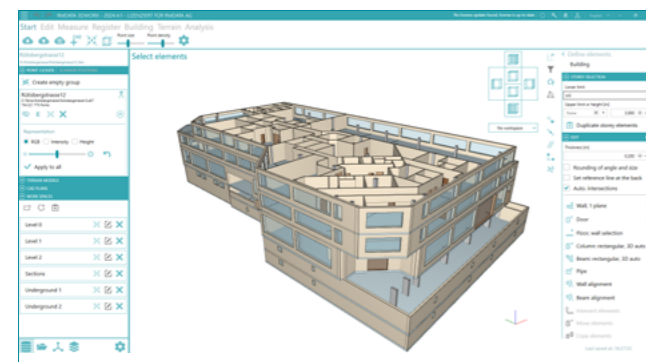
Idealization for plans and models

- Automatic directional rounding for automated calculations, along with directional snaps to help align new elements perpendicular or parallel to existing elements during the design process for creating an idealized plan or model
- Interactive stretching/trimming tool enables rapid cleanup of line segments

Designing generic 3D elements

- Automatically extracts geometry directly from the point cloud
- Creation of 3D elements such as cylinders, boxes, surfaces, as well as 3D wireframe models
- Seamless Export to downstream CAD systems in DWG/DXF/STL formats

Creating BIM models



Easily create Open BIM IFC models from a point cloud

- Streamlines the creation of IFC standard elements including walls, slabs, doors, windows, beams, pipe segments, steel beams and more
- Export of the created elements in the open standard IFC format or as a DWG/DXF file for further editing in any CAD or BIM system

Pixel-precise editing using panoramic images

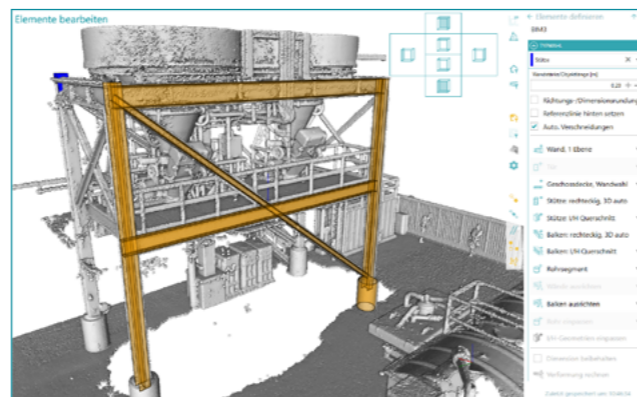
- Integrates panoramic images generated by sensors directly into the 3D view alongside the point cloud

Automatic pipe detection

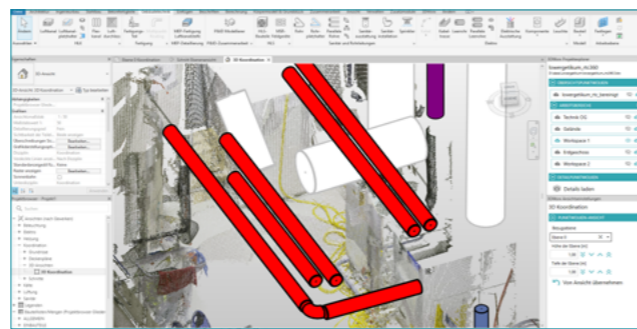
- Automatic detection of pipe segments directly in the point cloud
- Generation of optimised pipe runs including connecting elements

Automatic detection of steel beams

- Detects steel beams directly in the point cloud with just one click
- Manage and use standardized steel profiles
- Editing including design aids such as snapping
- Integrated accuracy and quality analysis



Modelling of a steel structure



Automatic detection of pipe elements and comparison with existing pipe types to be used and further processed in Autodesk Revit

Modular. Flexible. Fair.

rmDATA Reality3D is based on a flexible, user-based licensing and pricing model. The product platform offers comprehensive functionalities for point cloud processing. Optional production modules and a platform extension multiply the program's application possibilities. A usage fee is charged for each component, per user per month. The range of functions is always adaptable – depending on the project/order situation.

Platform

With rmDATA Reality 3D, you can process even very large point clouds quickly, efficiently and intuitively. In just a few steps, your point clouds can be turned into: floor plans, sections, views and general 3D models.

Production modules

Open BIM-Modelle (IFC)

With rmDATA Reality3D, you create IFC standard elements such as walls, slabs, doors, windows, beams, pipe segments and steel beams easily and precisely. Flexible editing tools support modelling, and the export to the open IFC format enables seamless processing in CAD and BIM systems.

BIM for Autodesk Revit

Using the rmDATA Reality3D Plugin for Revit, you can transfer point clouds directly into your Revit project, control their visibility and specify display filters for each view. Intelligent design commands enable the automatic detection of parameters and the design of wall elements, windows, doors and pipes based on existing type families for smooth modelling directly within the Revit

environment.

Digital Terrain Models

Use the DTM module to create raster-based terrain models, utilise automatic ground point detection and efficiently perform volume calculations and generate 3D profiles.

Point Cloud Analysis

This module allows you to check deviations in the point cloud from target planes and BIM models. You can also automatically compare two point clouds with each other. The results are presented in a coloured 3D graphic, enhanced with statistical data and can be exported as a CAD file.

Platform extension

WebShare

Point cloud sharing tool: use rmDATA WebShare to easily publish point clouds to the cloud and view them directly in your web browser – anytime, anywhere.



„The new automatic detection of pipe elements for OpenBIM models is a blessing for us when creating 3D models for building services engineering. (...) It's a pleasure to work with rmDATA Reality3D. It enables error-free work and high-quality results.“

Markus Müller, Technical Drafting Switzerland Ltd.

Your advantages



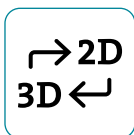
Time, cost and personnel savings

Quick creation of highly accurate as-built digital measurements and models from any point cloud



Data compression – from gigabytes to kilobytes

Reduces the amount of data by up to 80 % without loss of information



Easy navigation through the point cloud

Quick change from 2D to 3D view



Simple and smooth processing of large amounts of data

Saves storage space and increases processing speed



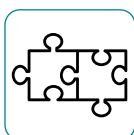
Digital twin – check, analyze, evaluate

Analyze project details in a familiar CAD environment



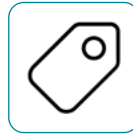
Simple and intuitive operation

No long training sessions, quick and productive start



Modular structure

Modules supplement the range of functions – you only buy what you need



Independent of scanner and software

Compatible with any device and any CAD software



2D | 2.5D | 3D measurements (buildings, terrain)

Creation of floor plans, views as well as BIM, 3D and terrain models



Continuous development

rmDATA 3DWorx is continuously evolving, with ongoing improvements and new innovations being added regularly. We place great value on feedback and the needs of our users. Insights gained

from this collaboration are used quarterly, with each product release introducing cutting-edge features. [Contact us and arrange an appointment for a presentation or get access to our free trial version.](#)



„Our limits in terms of points or project sizes are the limits of your hard disk. We can process what you can store.“

Frank Hoch, Reality3D product expert at rmDATA



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