MeshyAndI Desktop

Datasheet | 2.7 | Rev 1.0

01 Product overview

MeshyAndI Desktop processes scans and RGB-D packages on Windows. It combines point-cloud analysis, CAD, local photogrammetry and AI proposals in a saved project. Original and processed data remain distinguishable.

PLY or ZIP → **Review and process** → **CAD and measurements** → **Project and export**

Feature	Specification
Platform	Windows x64; the package includes its runtime. A separate Python installation is not required.
Inputs	PLY; scan ZIP/folder with RGB-D and trajectory; DXF; photographs; control points.
Analysis	Distance, polygon, profile, crop, 2.5D surface and reference-based volume.
CAD	Layers, polylines/polygons, XYZ editing, labels, slices, contours and 3D breaklines.
Photogrammetry	Bundled local ODM 3.6.2; WebODM connection; model registration and camera checks.
AI	Local CPU UperNet/Swin-tiny; categories, masks and geometric proposals for review.
Project	.meshy file and assets; raw data, derivative, CAD, photographs and reports as available.
Licence	Device-bound online activation; offline use while the licence remains valid.

Documentation covers public package 2.7. Button labels match that interface; documents are available in Albanian and English.

02 Formats and requirements

Output	Use
PLY / PTS	Point cloud. PTS supports import/indexing in Autodesk ReCap; RCP/RCS are not generated directly.
DXF / PDF	Visible CAD in metres; scaled A3 vector plan/section PDF. It is not a point-cloud screenshot.
OBJ / CSV / JSON	Surfaces, measurements and reports according to the function.
.meshy and assets	Reopenable project. Keep the file and assets folder together with any referenced external sources.

Extract the complete ZIP, not just the EXE. Keep engines/ODM and engines/AI beside the app. Local photo processing does not require WebODM login. The bundled WebODM source/launcher requires Docker Desktop with Linux containers and initial image downloads; Docker is not included.

The PLY reader is limited to 10 million points and 800 MB per file. Full display can be slow; lightweight viewing and data reduction are separate operations. RAM, runtime and processing storage depend on image count, quality and model size. Allow space for raw data, outputs and backups.

Model limits

AI produces proposals, not survey validation. Surfaces/volumes are 2.5D and do not fill gaps. 3D breaklines are stored in CAD but are not enforced in Desktop 2.7 surface triangulation. PLY alone cannot recover photographs, depth or calibration that were never recorded.

DXF is converted to supported geometry; curves may be approximated by segments. Full original CAD semantics are not preserved. Check scale, axes, CRS and registration for every transfer.