



Make the most of additive manufacturing

Model Import, Export & Mesh Repair	Netfabb Standard	Netfabb Premium	Netfabb Ultimate
Import common file formats <i>Import mesh files, universal formats like STEP or IGES, or native files from commonly used CAD applications.</i>	✓	✓	✓
Batch import and repair <i>Add multiple files to your project simultaneously and perform automatic repair during import.</i>	✓	✓	✓
Solid model workflow <i>Load solid models of CAD files and retessellate as needed to the appropriate level of detail for the task at-hand.</i>	✓	✓	✓
Automatic mesh repair <i>Run pre-defined or custom repair scripts that correct the most common mesh errors.</i>	✓	✓	✓
Semi-automatic mesh repair <i>Perform specific repair operations to the entire part or to a selection of triangles, surfaces, shells, or edges.</i>	✓	✓	✓
Manual mesh repair <i>Use a variety of mesh repair tools to manually add, remove, or adjust mesh triangles, nodes, and edges.</i>	✓	✓	✓
Cloud project collaboration <i>Share Netfabb projects with stakeholders anywhere using A360 cloud-based project storage.</i>	✓	✓	✓
Mesh to CAD (B-rep) export <i>Convert organic, free-form mesh files to boundary representation models</i>	✓	✓	✓

Analysis Tools	Netfabb Standard	Netfabb Premium	Netfabb Ultimate
Part and platform statistics <i>Easily access mesh statistics, part sizes and volumes, and platform capacity and utilization.</i>	✓	✓	✓
Part level analysis <i>Calculate and view upskins/downskins, center of gravity, wall thicknesses, shadow areas, and support volumes.</i>	✓	✓	✓
Measurement <i>Create measurements of lengths, thicknesses, and angles on and between parts that update with model changes.</i>	✓	✓	✓
Mesh compare <i>Compare distances between meshes to check models after remeshing, scaling, or corrective deformation.</i>	✓	✓	✓
Live collision detection <i>Check if two or more parts in the project touch each other and quickly identify where collisions are occurring.</i>	✓	✓	✓
Interlock detection <i>Identify where parts may be interlocked after manual and automatic packing steps.</i>	✓	✓	✓
Z-removability check <i>Ensure easy platform unloading by identifying where parts may obstruct each other vertically.</i>	✓	✓	✓
Report generation <i>Aggregate part and platform analysis information in customizable templates for use in estimates, quoting, or production planning</i>	✓	✓	✓

	Netfabb Standard	Netfabb Premium	Netfabb Ultimate
Model Editing			
Cutting tools <i>Cut parts using standard or custom planes or freeform polygon shapes with custom edge profiles.</i>	✓	✓	✓
Pins and holes <i>Add pins and holes or hooks while cutting to aid reassembly of split parts.</i>	✓	✓	✓
Mirror and scale <i>Create mirrored copies of parts or scale components using scale factor, scale percentage, or target sizing.</i>	✓	✓	✓
Split or extract shells <i>For parts that contain multiple shells, split them all into multiple parts or extract selected shells manually.</i>	✓	✓	✓
Mesh manipulation <i>Manipulate meshes directly with smoothing, extrusion, distortion, boolean or shearing operations.</i>	✓	✓	✓
Texture and colors <i>Mark parts for specific machines, to simulate painting, or to send parts to a printer that can produce the colors.</i>	✓	✓	✓
Labelling <i>Add text, shield, or image labels manually or automatically create multiple parts with labels at once.</i>	✓	✓	✓
Part hollowing <i>Create hollow parts using a variety of options to define the offset shell surface.</i>	✓	✓	✓

	Netfabb Standard	Netfabb Premium	Netfabb Ultimate
Orientation and Packing			
Orientation analysis <i>Calculate the best orientation and preview supports with user-defined parameters and custom rankings.</i>	✓	✓	✓
Move, rotate, and align <i>Manually arrange the parts on the platform with simple move, rotate, and alignment tools.</i>	✓	✓	✓
Planar packing <i>Pack parts on the 2D platform, automatically grouped according to their shapes to avoid collisions.</i>	✓	✓	✓
Model packaging <i>Create packages of small parts to avoid losing them in the build space.</i>	✓	✓	✓
Automatic 3D packing <i>Densely pack parts within the entire build volume with the option to setup custom no-build zones.</i>	-	✓	✓

	Netfabb Standard	Netfabb Premium	Netfabb Ultimate
Latticing and Optimization			
Lattice Assistant <i>Hollow parts and add non-structural lattices in a single step to save material and processing time.</i>	-	✓	✓
Perforations <i>Add holes for material drainage with matching plugs during latticing or as a separate operation.</i>	-	✓	✓
Lattice Commander <i>Create complex lattices within a part or on its surface, or create designs combining multiple lattices and skins.</i>	-	✓	✓
Selective Space Structures (3S) <i>Create lattices that follow surface contours and complex lattices or lattice combinations via Lua script to achieve functional attributes such as stability, lightness, flexibility, and thermal conductivity.</i>	-	-	✓
Lattice Optimization (Netfabb Optimization Utility) <i>Using built-in optimization, generate non-uniform lattices that can withstand required loading conditions.</i>	-	-	✓

Support Generation	Netfabb Standard	Netfabb Premium	Netfabb Ultimate
Fused filament fabrication supports <i>Toolpath level supports are integrated in G-Code export.</i>	✓	✓	✓
Multiple support types <i>Netfabb provides detailed control over the definition and creation of bar, polyline, and volume supports.</i>	-	✓	✓
Parametric supports <i>Automatically update supports with any changes in orientation, assembly, or geometry.</i>	-	✓	✓
Automated support scripts <i>Define and run custom scripts to automatically apply supports to one or multiple parts simultaneously.</i>	-	✓	✓
Semi-automatic support generation <i>Using clusters or face groups, add supports manually or apply a support script only to the selected area.</i>	-	✓	✓
Manual support creation <i>Add, move, or remove individual supports individually for detail work and fine-tuning of support structures.</i>	-	✓	✓
Angled volume supports <i>Project supports outside the part to the platform to avoid part-to-part supports and reduce finishing effort.</i>	-	✓	✓

Toolpathing	Netfabb Standard	Netfabb Premium	Netfabb Ultimate
Slice Commander <i>Define hatching patterns, simple laser strategies and offsets. View simulation of contour and filling directions.</i>	✓	✓	✓
Visual programming interface <i>Create custom, elaborate scan strategies by combining pre-defined elements with a visual design tool.</i>	-	✓	✓
Advanced Toolpathing Utility <i>Scripting interface for all aspects of toolpathing, geometry prep, build strategy, and export format definition plus Slice Commander integration capability.</i>	-	✓	✓

Machine Integration	Netfabb Standard	Netfabb Premium	Netfabb Ultimate
Metal machine workspaces <i>Prepare metal parts with machine-specific settings for the build platform, materials, and build strategies.</i>	-	✓	✓
Non-metal machine workspaces <i>Configure parts for specific, non-metal machines from leading additive machine manufacturers.</i>	✓	✓	✓
Fused filament fabrication workspaces <i>Customize numerous process parameters and apply FFF-specific support generation scripts.</i>	✓	✓	✓

Automation	Netfabb Standard	Netfabb Premium	Netfabb Ultimate
LUA scripting <i>Automate common preparation tasks including import, analysis, repair, packing, slicing, and toolpathing.</i>	-	-	✓

Hybrid Manufacturing	Netfabb Standard	Netfabb Premium	Netfabb Ultimate
Create near-net shapes <i>Thicken parts or remove features and holes to add material for subtractive finish machining operations.</i>	-	✓	✓
Datums <i>Add datums to the part or platform as location references for machining and inspection processes.</i>	-	✓	✓

NETFABB SIMULATION

Netfabb metal additive process simulation is available through a local solver with the Netfabb Simulation product or through cloud-based simulation with Netfabb Premium, Netfabb Ultimate and with the Netfabb Simulation product. Cloud-based simulation uses cloud credits.

Multiscale Process Simulation for Metal Powder Bed Fusion	Netfabb Standard	Netfabb Premium	Netfabb Ultimate	Netfabb Simulation
PRM generation <i>Generate PRM files based on chosen material and process parameters.</i>	-	Cloud Solve	Cloud Solve	Cloud & Local Solve
Simulation of entire build plate <i>Import multiple models and supports to capture interactions between parts and the distortion of the build plate.</i>	-	Cloud Solve	Cloud & Limited Local Solve	Cloud & Local Solve
Deformation prediction and compensated shape export <i>Predict how parts will deform and automatically compensate geometries based on simulation results.</i>	-	Cloud Solve	Cloud & Limited Local Solve	Cloud & Local Solve
Support failure prediction <i>Identify locations where support failure is likely to occur to inform the support creation process.</i>	-	Cloud Solve	Cloud & Limited Local Solve	Cloud & Local Solve
Recoater interference detection <i>Identify areas where the part may distort upwards that may cause interference with the recoater blade.</i>	-	Cloud Solve	Cloud & Limited Local Solve	Cloud & Local Solve
Heat treatment <i>View stress results before and after annealing the part.</i>	-	Cloud Solve	Cloud & Limited Local Solve	Cloud & Local Solve
Part and support parameters <i>Accurately reflect your build process by applying unique settings to supports and parts.</i>	-	Cloud Solve	Cloud & Limited Local Solve	Cloud & Local Solve
Distortion and stress after removal from build plate <i>Predict and view results for distortion and stress after wire cutting.</i>	-	Cloud Solve	Cloud & Limited Local Solve	Cloud & Local Solve
Hot spots and lack of fusion <i>Identify any areas of the part where hot spots will occur, or spots where there will be a lack of fusion.</i>	-	Cloud Solve	Cloud & Limited Local Solve	Cloud & Local Solve

Process Simulation for Directed Energy Deposition	Netfabb Standard	Netfabb Premium	Netfabb Ultimate	Netfabb Simulation
Import laser vector (*.lsv) files for simulation <i>Create laser vector (*.lsv) files using Netfabb Ultimate or Powermill Ultimate</i>	-	-	-	Local Solve
Simulation of entire build <i>Use laser vector files (*.lsv) to simulate distortion and stress for powder and wire-fed DED processes.</i>	-	-	-	Local Solve