materialise

innovators you can count on

SLM Build Processor 3.0
What´s new?

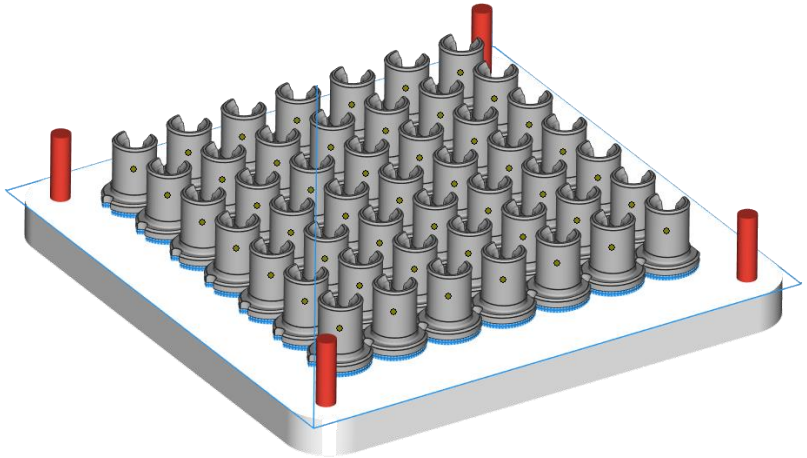
April 2017

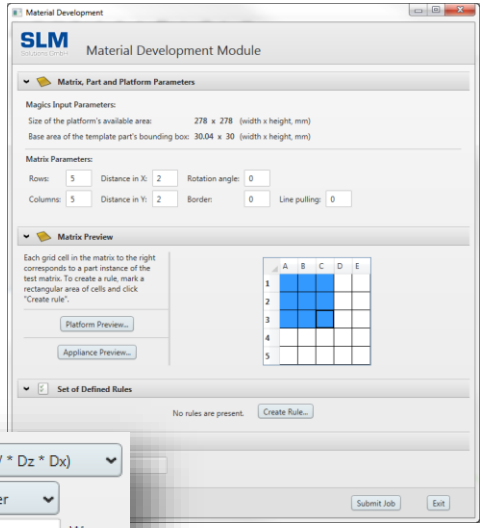
Apply formula at material development module

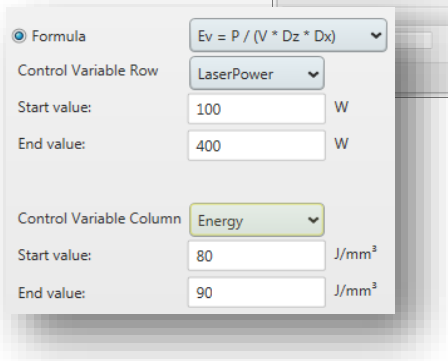
Two predefined formula can be applied to a matrix:

Volume energy density & track energy per layer

The field variable is calculated automatically based on the linear interpolation in row and column of the control variables.







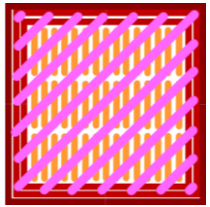
Additional recoating for Up Skins

materialise
innovators you can count on

Add additional material to up skins to achieve better surface quality

Up Skin Remelting will be applied directly on top of a *Volume* area without new powder:

1. Volume area scanned

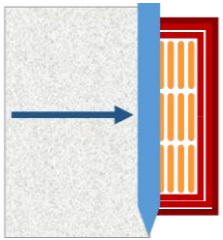


2. Up Skin area scanned on top

new in 3.0

Up Skin Recoating will be applied on a new layer of material powder on top of a *Volume* area without platform movement:

1. Volume area scanned

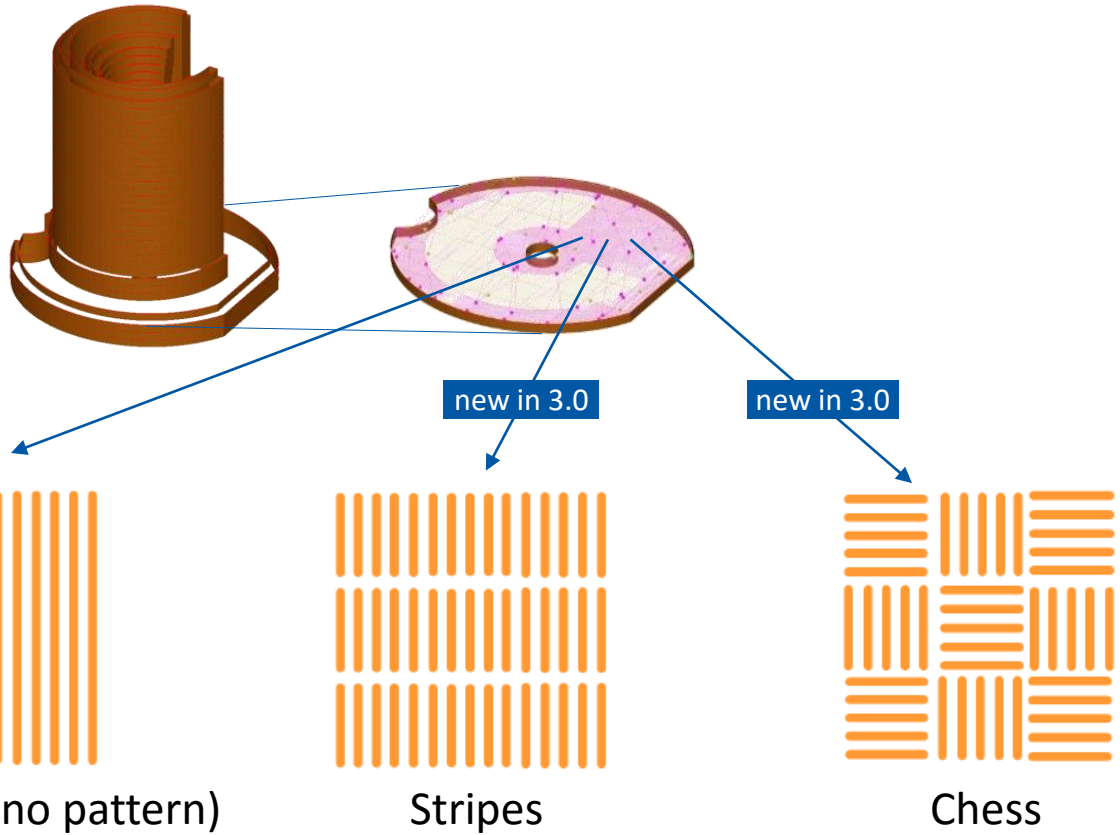


2. Layer coated with new material (no platform movement!)

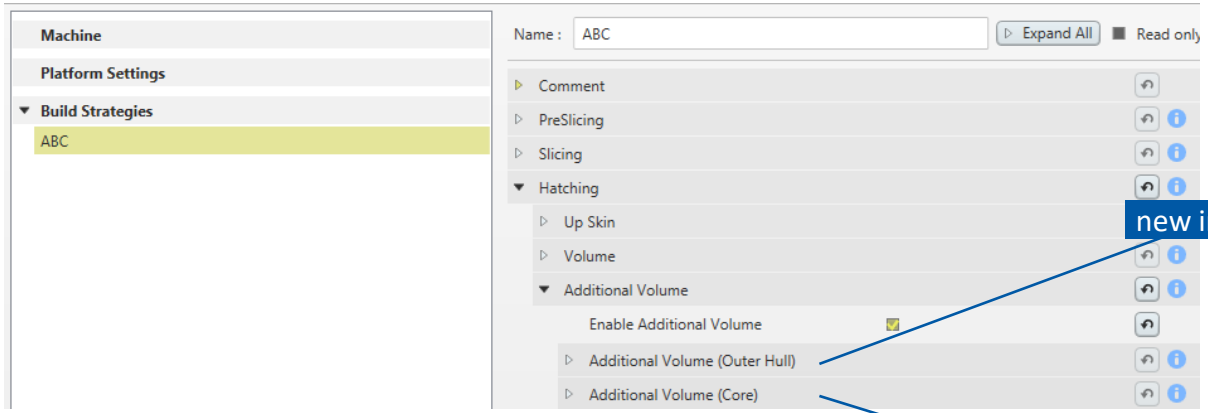
3. Up Skin area scanned on new material

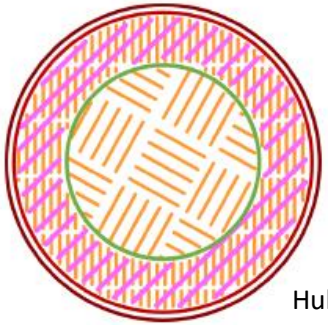
Up Skin with all hatch pattern available

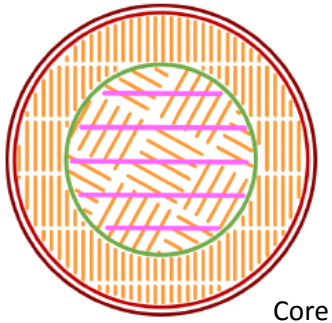
materialise
innovators you can count on



Additional volume area



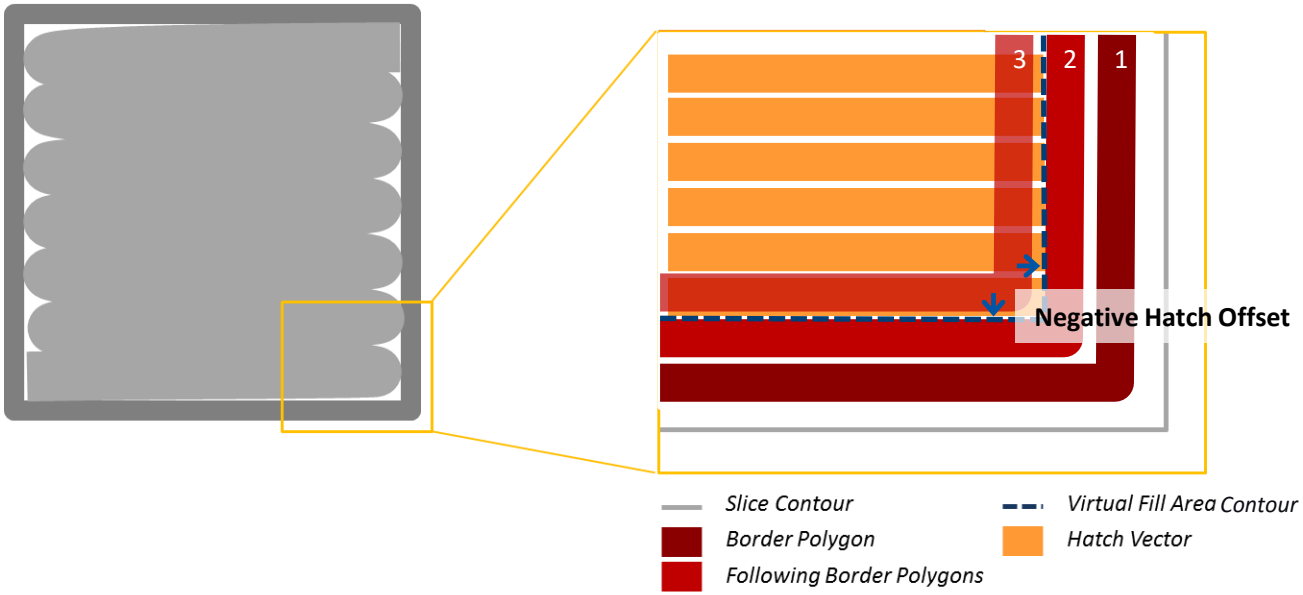




Expose a layer a second time with different hatching and scanning parameters to achieve higher material density.
Existed for Core area before, now also available for the entire volume

Negative Hatch Offset

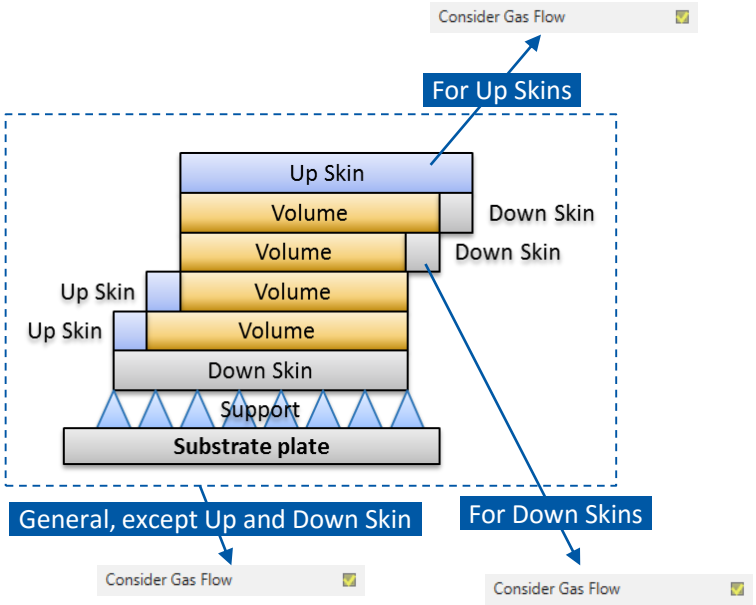
materialise
innovators you can count on



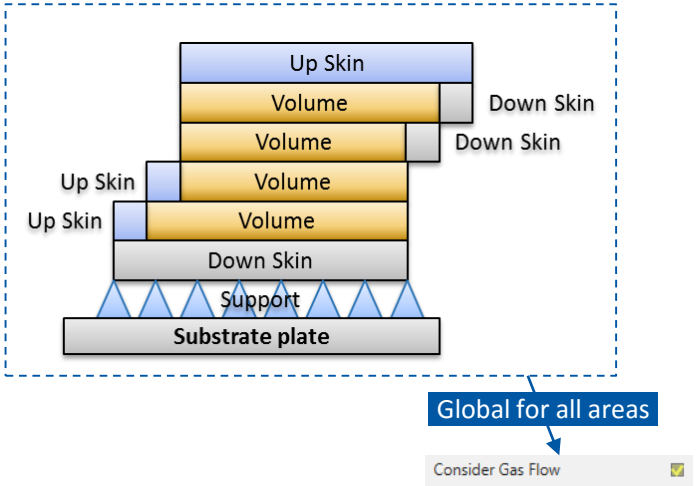
Consider gas flow as global setting

materialise
innovators you can count on

Before:

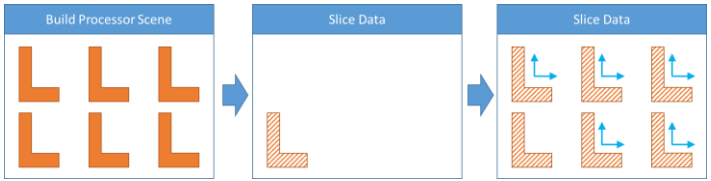


New in 3.0:



Instead of **Consider Gas Flow** as build order mode now as a global setting to improve user friendliness.

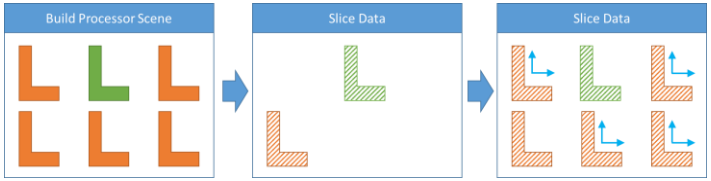
Performance: Virtual Copies



All parts have same Build Strategy

Build Processor will slice + hatch one part.

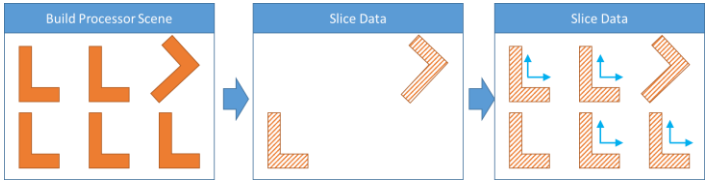
Slice + hatch data will be copied and moved in X,Y direction



Different Build Strategies available

Build Processor will slice + hatch one part for every build strategy.

Slice + hatch data will be copied and moved in X,Y direction



Part(s) are rotated in z-direction

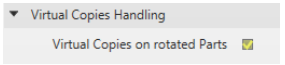
When checkbox “Virtual Copies on rotated Parts” is *unchecked*,
Build Processor will slice + hatch for every part with different z-rotation.

Slice + hatch data will be copied and moved in X,Y direction

Part(s) are rotated in z-direction

When checkbox “Virtual Copies on rotated Parts” is *checked*,
Build Processor will slice + hatch one part.

Slice + hatch data will be copied, moved in X,Y direction and rotated in z-direction. Hatched will also be rotated.
Note: Build order will not change due to rotation.



File Format Changes

materialise
innovators you can count on

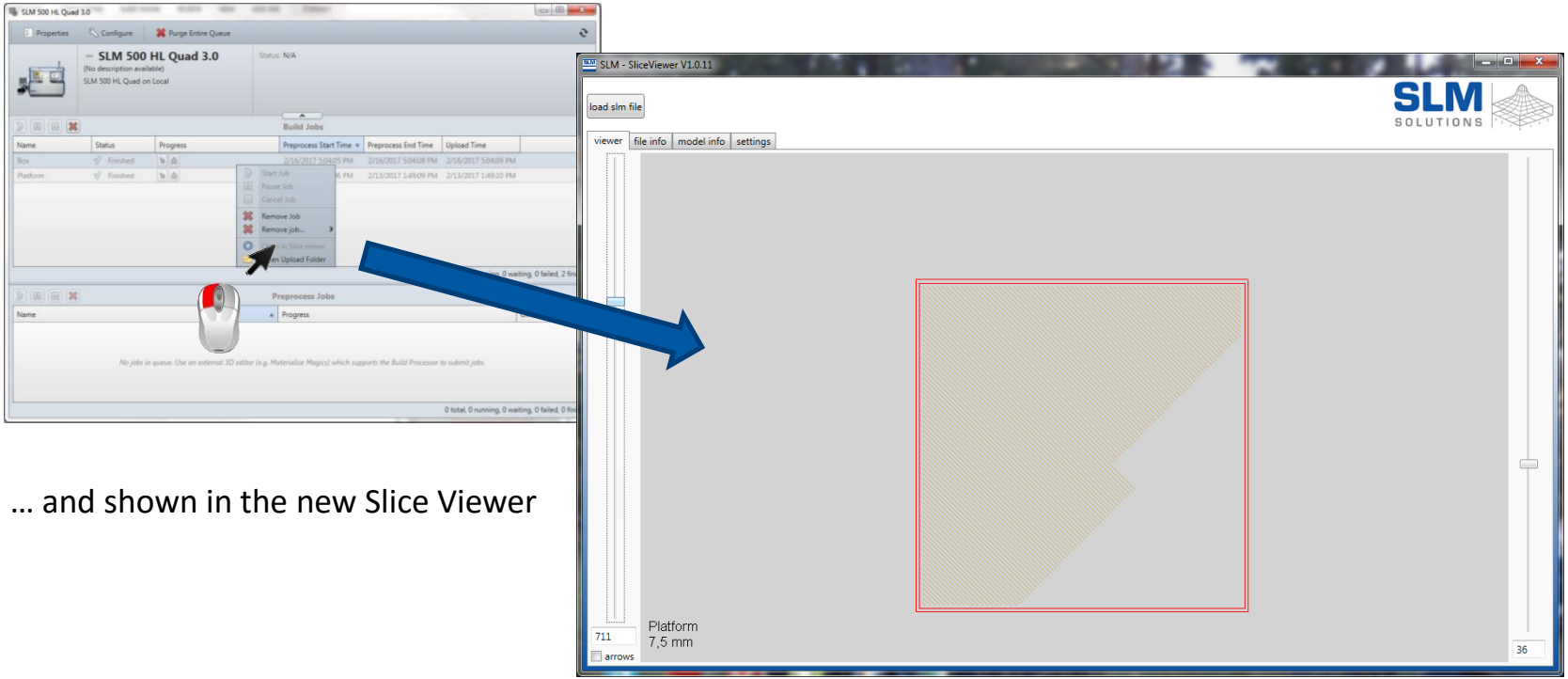
Additional Information can be stored in .SLM file:

- Unique File ID
- Date of file creation
- Software Name and Version Number
- Used material per build job
- Name of used vector types
- Comments on material and build strategies

Slice Viewer by SLM Solutions

materialise
innovators you can count on

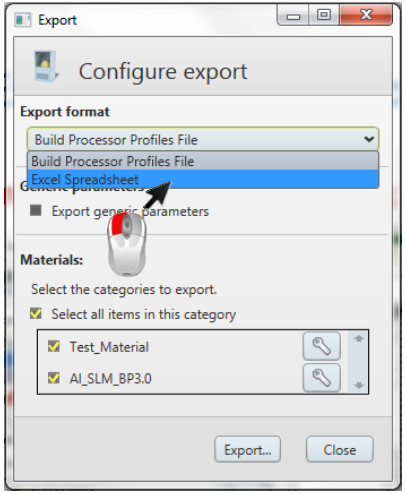
Additional information can be stored in .SLM file …

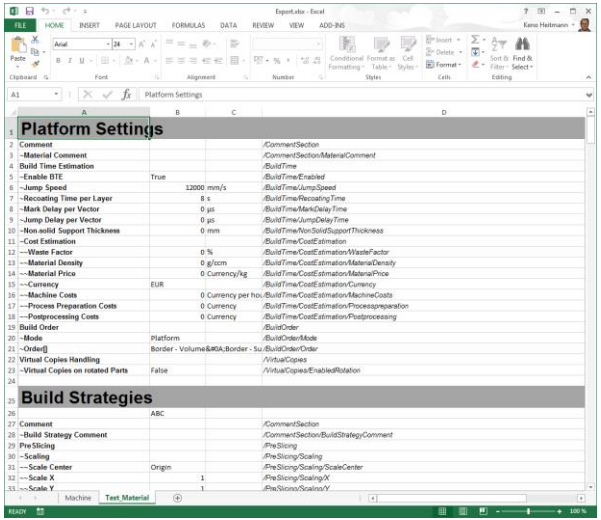


… and shown in the new Slice Viewer

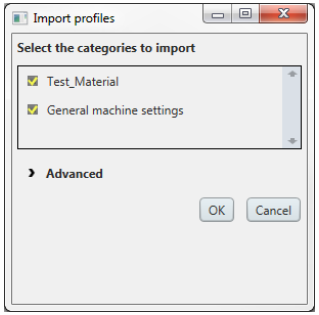
Profile import/export using Microsoft Excel

Parameter development is getting more easy





Microsoft Excel

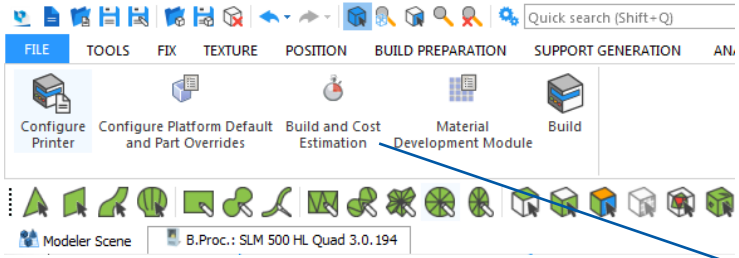


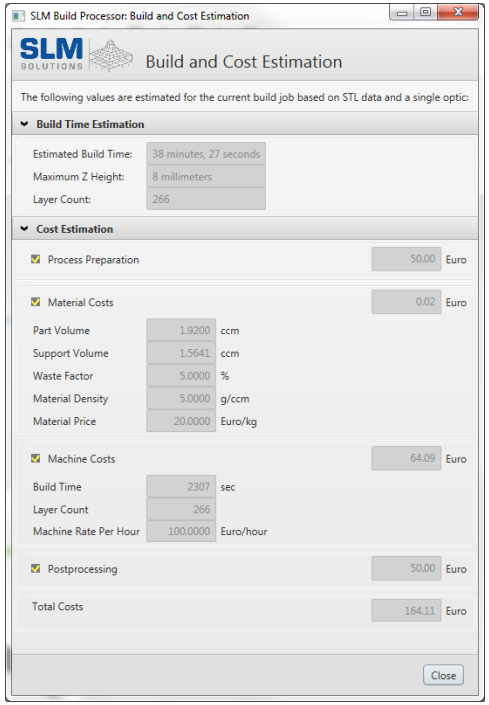
Export parameter from SLM BP

Edit parameters in Microsoft Excel

Import parameters into SLM BP

Cost estimation of build platform



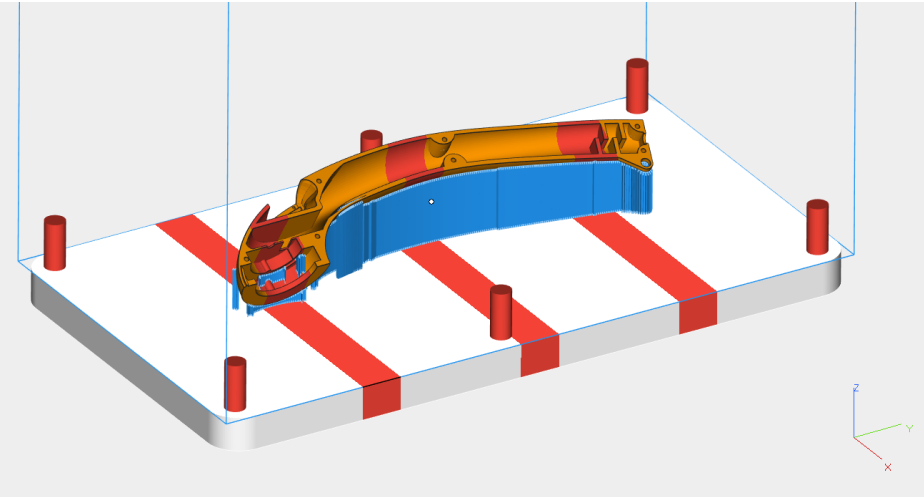


Extending the STL-based Build Time Estimation by a Cost Estimation to calculate your building costs before generating the job file.

materialise
innovators you can count on

Build Time Estimation supports multi-optics

materialise
innovators you can count on



Job Name: **Testscene**

Estimated Build Time: **0:11:25:2**

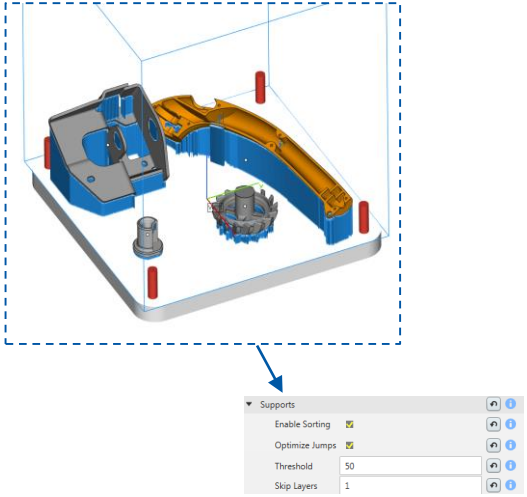
Total Platform Cost		**Euro**	1248.77
Process Preparation		Euro	50.00
Material Costs		Euro	7.05
Part Volume	815.35	ccm	
Support Volume	595.58	ccm	
Percentage Waste	5.00	%	
Material Density	5.00	g/ccm	
Material Price	20.00	Euro/kg	
Machine Costs		Euro	1141.72
Machine rate per hour	100.00	Euro	
Post Processing Cost		Euro	50.00

Group	Part Name	Cost	Group Cost
	handle	1248.77	

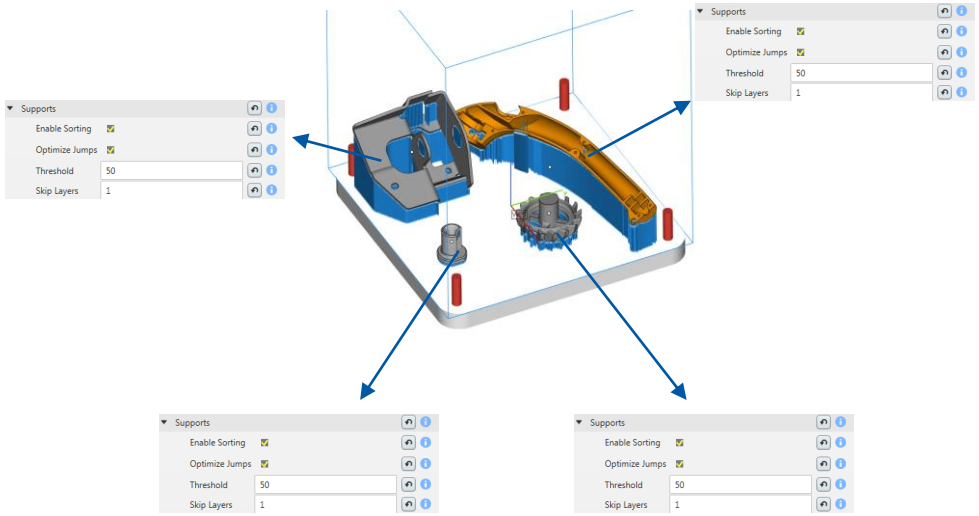
The build time estimation feature now supports multi-optics and considers delays to give a more realistic estimation.

Support parameters within build strategy

Before:



New in 3.0:



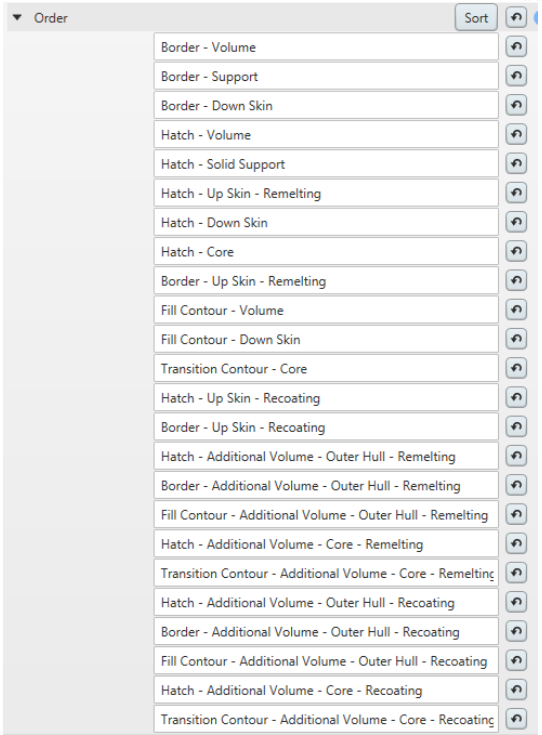
Increased flexibility for support settings:
Define support parameters individually per build strategy

Cleanup vector sorting list

materialise
innovators you can count on

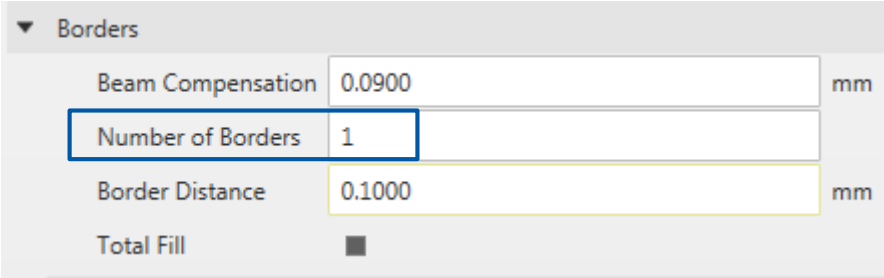
Show only existing vectors.

Use same vector names as in Profile Editor.

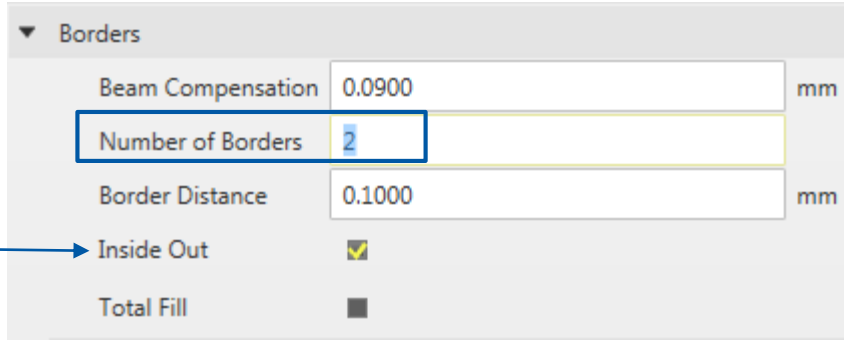


Show "Inside-out" only when needed

materialise
innovators you can count on

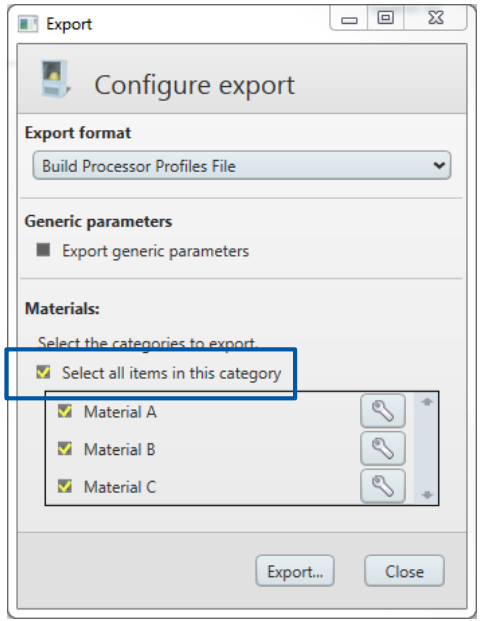


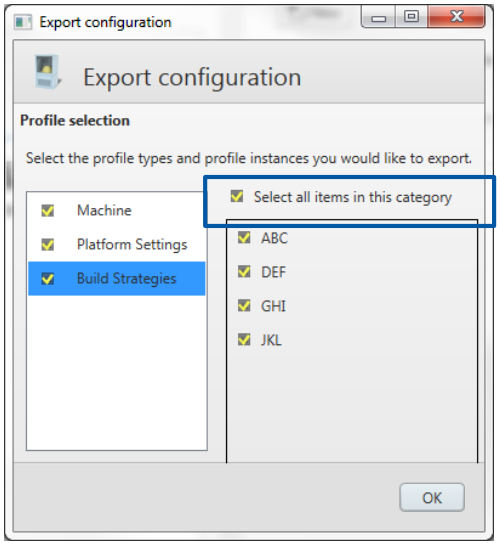
Show sorting options only when applicable to get better control about your profile configuration



Faster selecting and unselect of materials

materialise
innovators you can count on

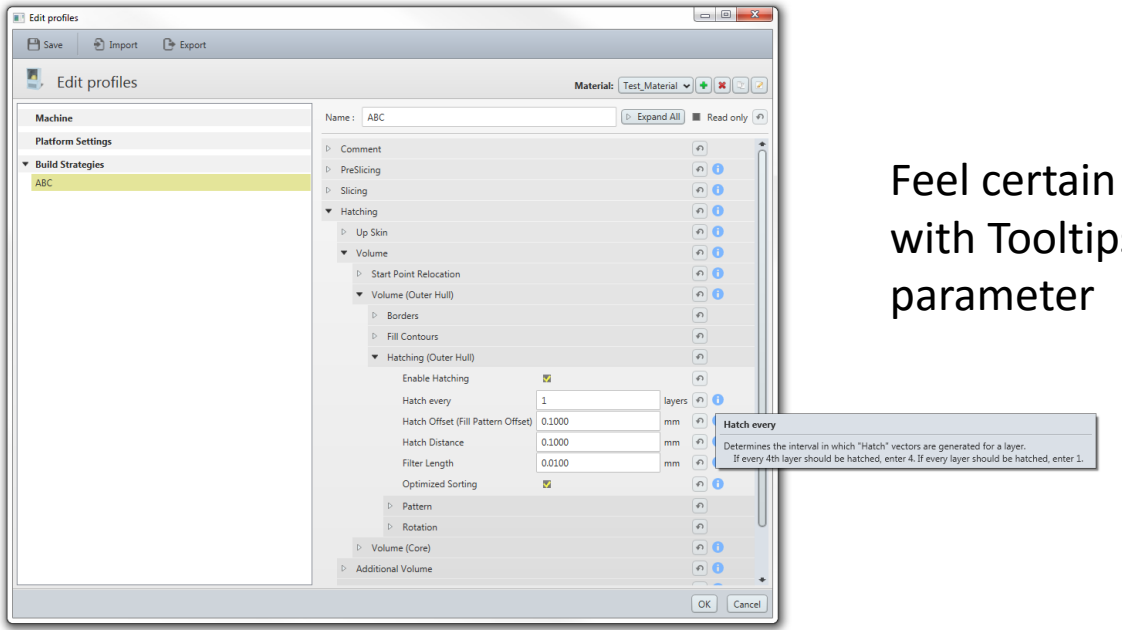




Selecting and Deselecting of Materials and Build Strategies speeds up the user workflow.

More tooltips added

materialise
innovators you can count on



Feel certain to configure your parameters with Tooltips available now for every parameter

Parameter re-structuring

materialise
innovators you can count on

General cleanup and restructuring of several parameters to make the navigation in the Profile Editor more user friendly