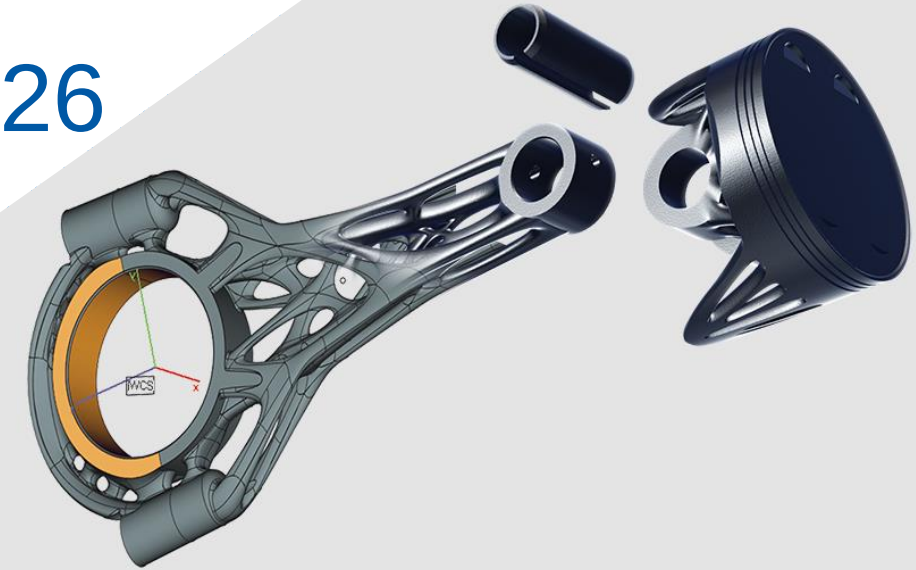
Materialise Magics 26

What's new



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Materialise Magics 26 feature highlights

Magics is recognized as the ideal software for additive manufacturing part preparation and mesh-based operations. Magics 26 will enable users to seamlessly transition from design optimization in CAD to mesh-based file preparation.

Productivity

- Magics now offers *BREP editing tools* that provide *compatibility* with your current design flow. With these tools you can enhance your parts for printing in *a higher resolution*.
- We have boosted the functionality of tree supports, *increasing performance*, *unifying cone and tree* supports, and introducing *braces*.

Usability

- Optimize your workflow via the new and improved *Part and Platform Scenes*.
- We *restructured the support generation pages* in a more logical way and introduced a parameter *search function*.

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UI/UX

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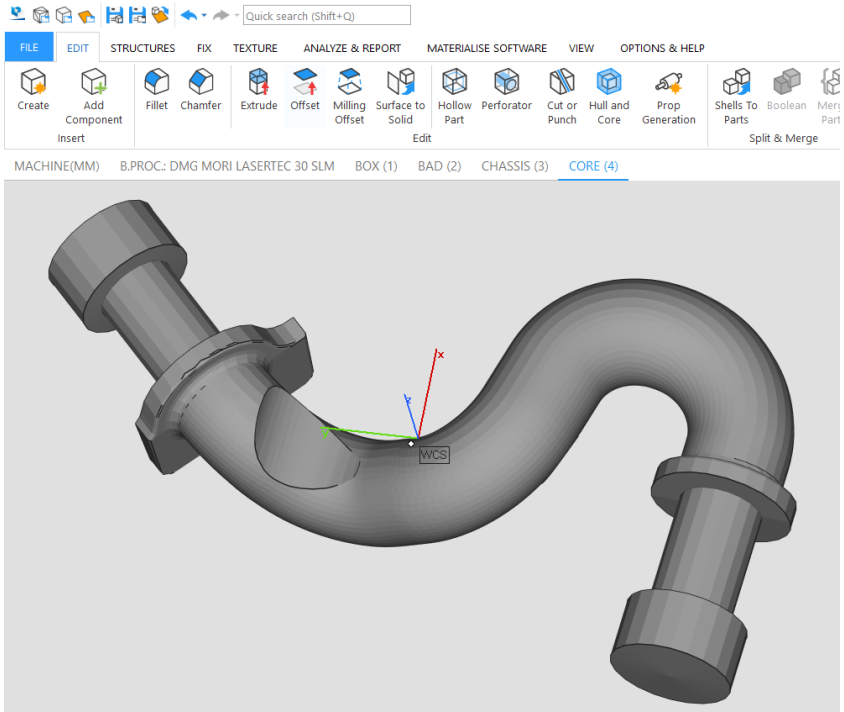
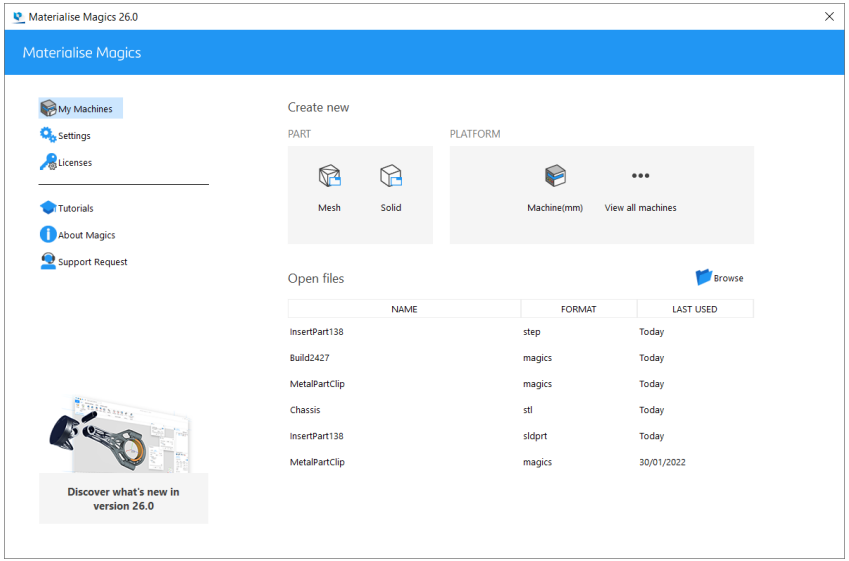
New Scene Structure

- To optimize your workflow, Part and Platform Scenes will more explicitly split up part and platform preparation.
- This separation enables you to better focus on each workspace by showing you only the tools you need at each point of your workflow.
- As a result of this, it will **not be possible to import UI Settings** from earlier versions of Magics.
  Adapt your UI according to your needs per scene via the Customize UI function.



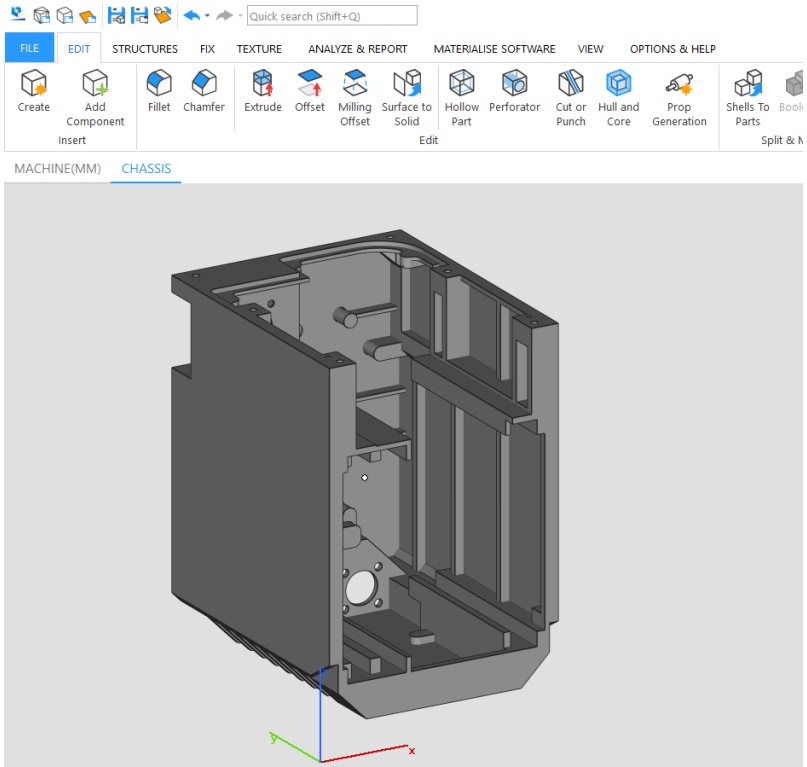
Home Screen



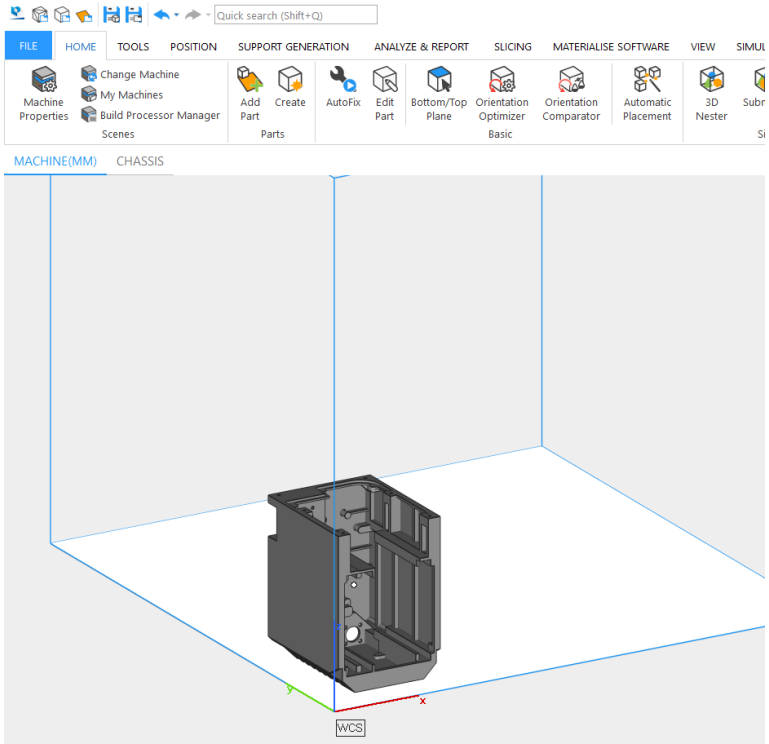
- To guide you to the right scene, the Home Screen has been introduced.
- With this starting screen you can
  - Open an empty mesh or BREP Part Scene
  - Open an empty Platform Scene by selecting a machine
  - Open a file by selecting one of your recent files, browsing for another file or dragging and dropping a file on the home screen.

Part Scenes

- We have changed our Modeler Scene into individual Part Scenes, where you can focus on editing, fixing, and analyzing your parts.
- To optimize your workspace different parts will be placed in different Part Scenes.
- For Boolean operations or when creating assemblies, additional parts can be loaded to a specific Part Scene with the Add Component function.



Platform Scenes



- Similarly to the Part Scenes, the new Platform Scenes provide you with a focused view for the preparation of your platform. Available functions are aligned with that purpose.
- To easily make changes to parts, you can use the Edit Part function on the Home Ribbon to open the Part Scenes of selected parts.
- In both Part and Platform Scenes context menus now work based on whether you are hovering over a part or not.

BREP Functionality

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BREP Introduction

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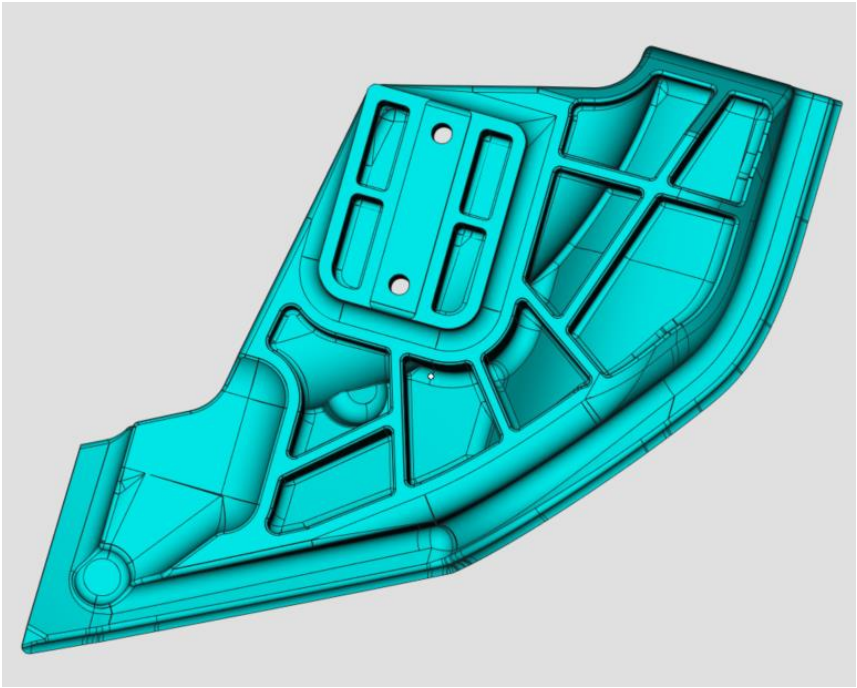
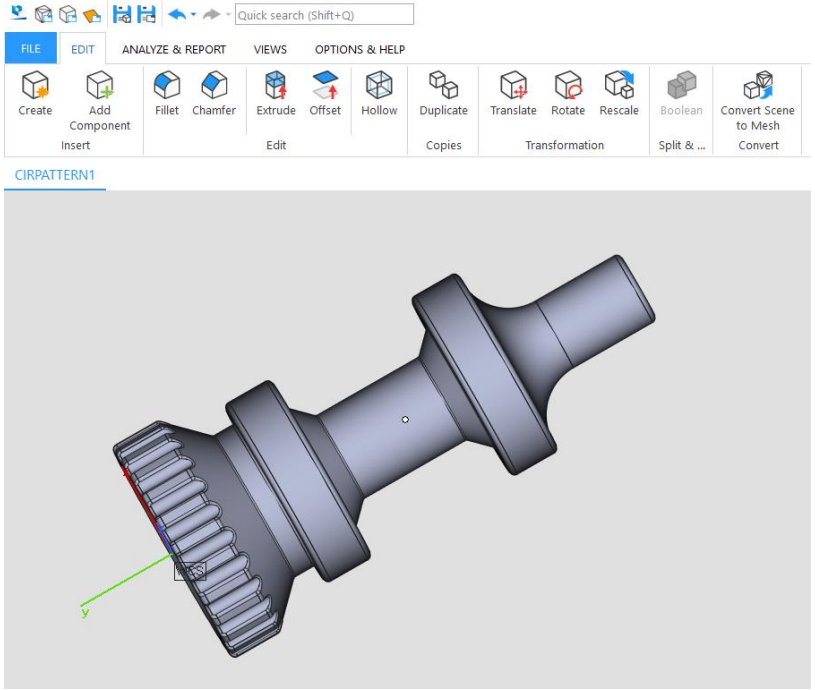
- Magics 26 is the first product in the Materialise portfolio to provide BREP functionality, with more to come in the future.
- BREP, or Boundary Representation, is a way of representing 3D parts. It is used in CAD software, which is the reason why BREP files are often called CAD files. Examples of BREP files are STEP files and the specific file formats of the various CAD packages.
- Where a mesh will represent the part with triangles, a BREP will use faces. Editing BREPs provides a higher level of control and accuracy compared to mesh-based editing.



BREP Data Preparation (1)



- With the introduction of BREP operations in Magics, you will improve accuracy as well as performance, and be able to do more with your parts.
- In Magics 26, the focus of our BREP functionality is data preparation. Therefore, BREP functionality is only enabled in Part Scenes.
- BREP Part Scenes will provide you all the BREP tools available. To go to a mesh Part Scene, you can convert your BREP to mesh.

BREP Data Preparation (2)

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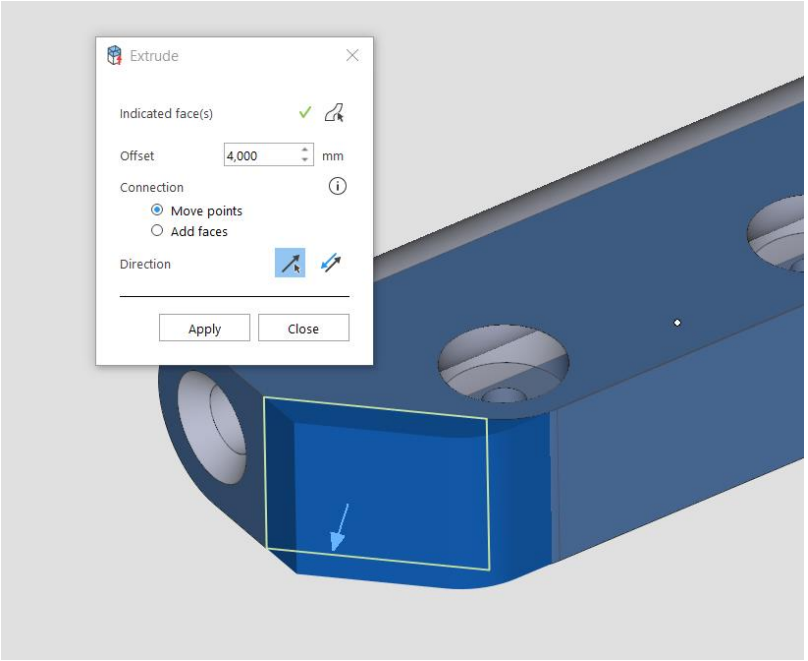
- You will enable the BREP functionality in a Part Scene by importing a BREP file, such as a STEP file.
- With the various BREP tools, you can optimally adapt your part for printing: thicken thin walls, remove sharp edges, hollow your part, etc.
- To use the BREP in other CAM or CAD software, you can export it as a STEP file from a BREP Part Scene.



Import

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BREP Import	
CATIA5	◆
CATIA6	◆
IGES	◆
JT	◆
INVENTOR	◆
NX (UNIGRAPHICS)	◆
PARASOLID	◆
PRO/ENGINEER	◆
REVIT	◆
SAT	◆
SOLID EDGE	◆
SOLIDWORKS	◆
STEP	◆

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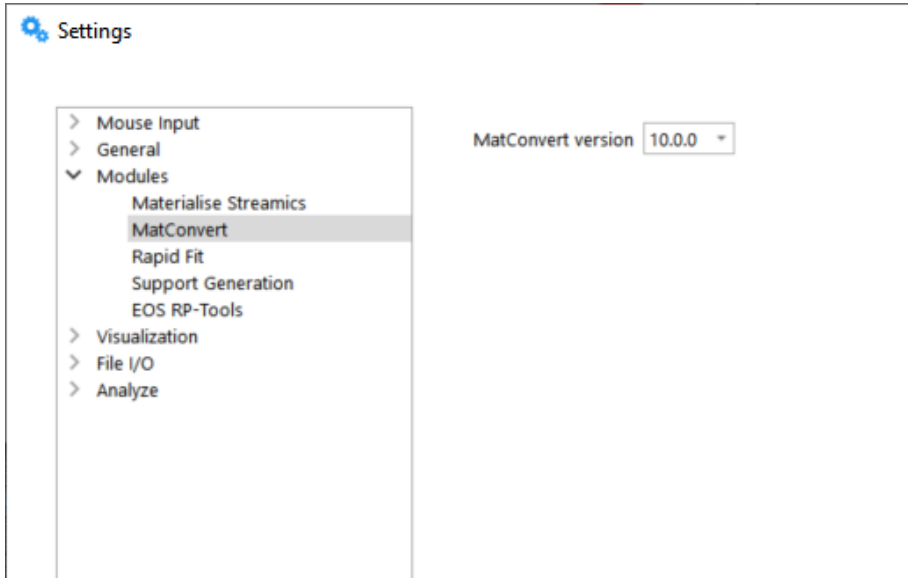
Import Changes (1)

- From now on, importing STEP files is available to all Magics users.
- We convert native CAD file formats to BREPs for all file formats in the image.
- In your settings, you can indicate whether you would like to import them as a BREP or convert them to mesh at import.

Import Changes (2)

- To give you access to a more compact and smaller mesh file format than STL, for example, we now also support the OpenCTM file format.
- Catia v4 is no longer supported*.



*With MatConvert 9.7 or older you can still import Catia v4, files, but you will not have access to newer import functionality, such as importing BREPs.

Support Generation

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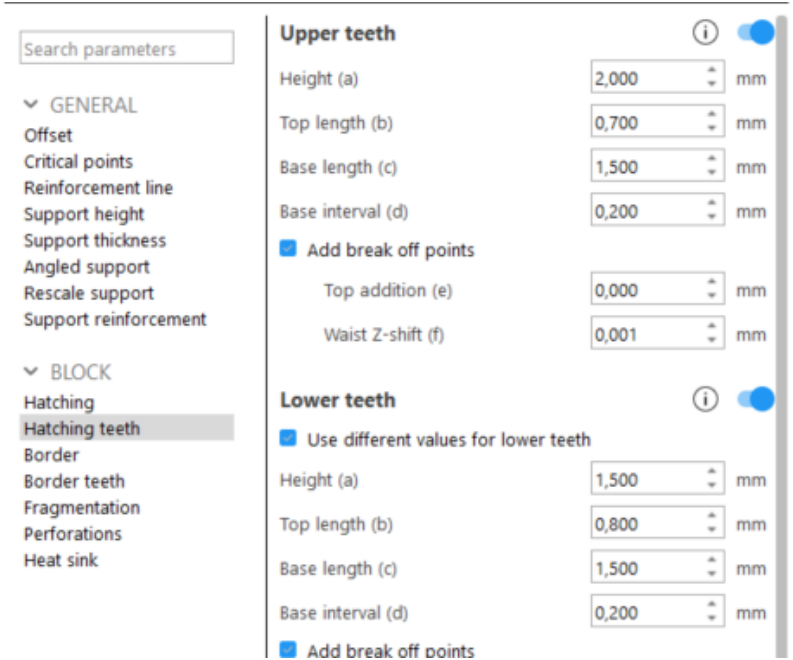
General Support Changes



- To provide you with a more logical grouping of parameters, we restructured the pages for support parameters.
- To quickly find parameters, we added a search function to the parameter pages.
- For easier selection of support surfaces, the default function in SG mode is now the former Go to Surface function.

Cone/Tree Unification

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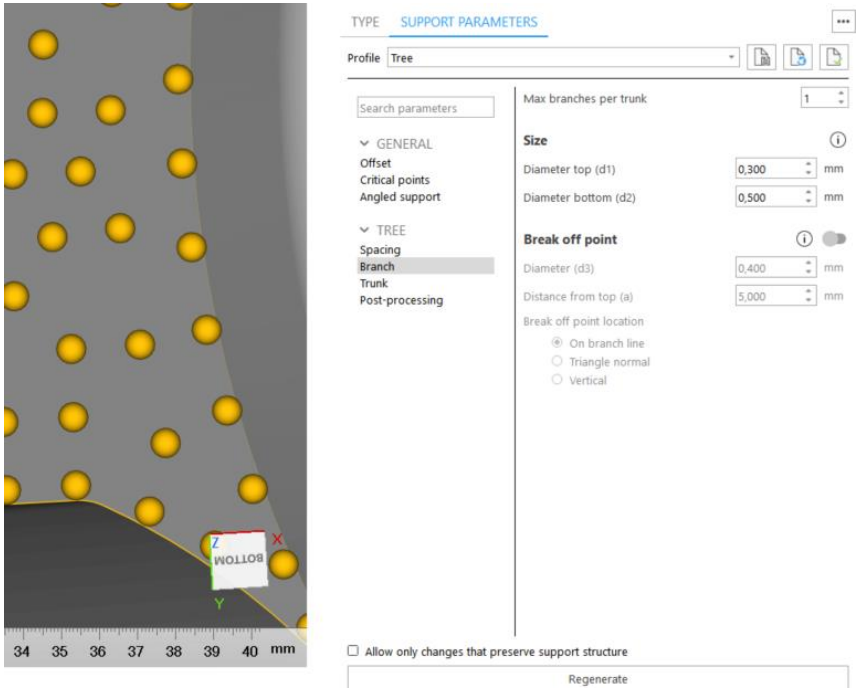
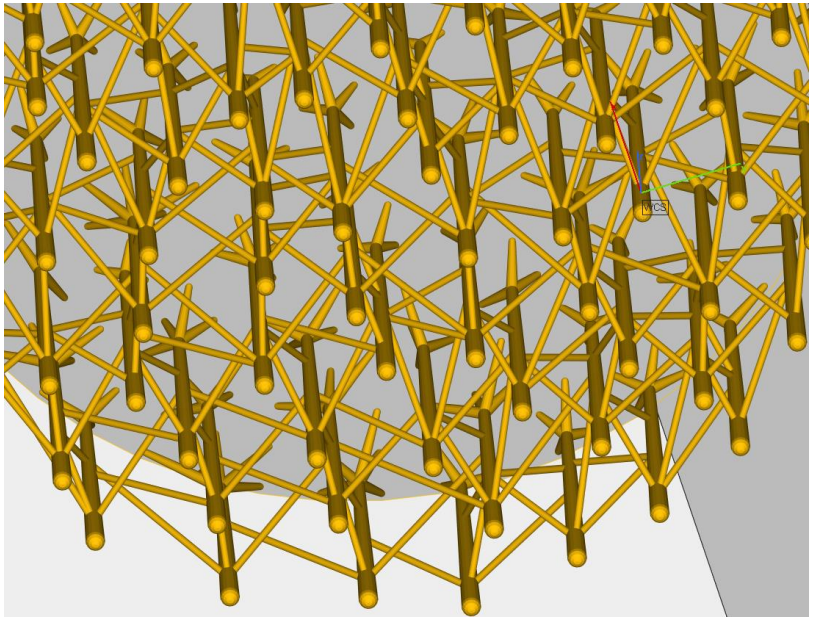
- To give you a better, faster performance and an improved user experience, cone and tree functionality have been merged to Tree Support.
- Choose how many branches are created per trunk in the Branch page. You can use the Cone profile or set the max branches per trunk value to one to generate a cone-shaped support.
- For your convenience, the various manual Tree Support functions have been added to the general Support Generation ribbon.



Tree Improvements



- To strenghten your Tree Support, you can now manually or automatically add Braces to your trees.
- For ease of use, a single Regenerate button is now available for Tree Support, as well as a checkbox to enable or disable changes that don’t preserve the support structure.
- For a better user experience, the result of the Select & Delete buttons for Tree Support has been aligned with the other support types.

3D Nester

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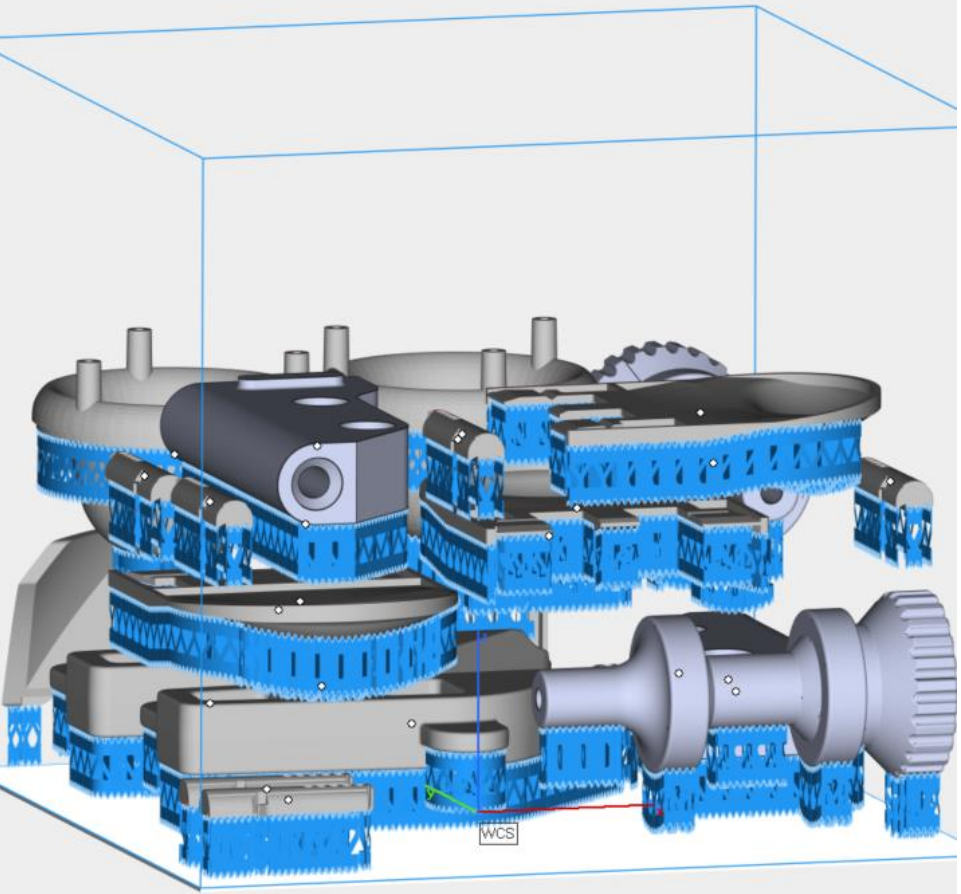

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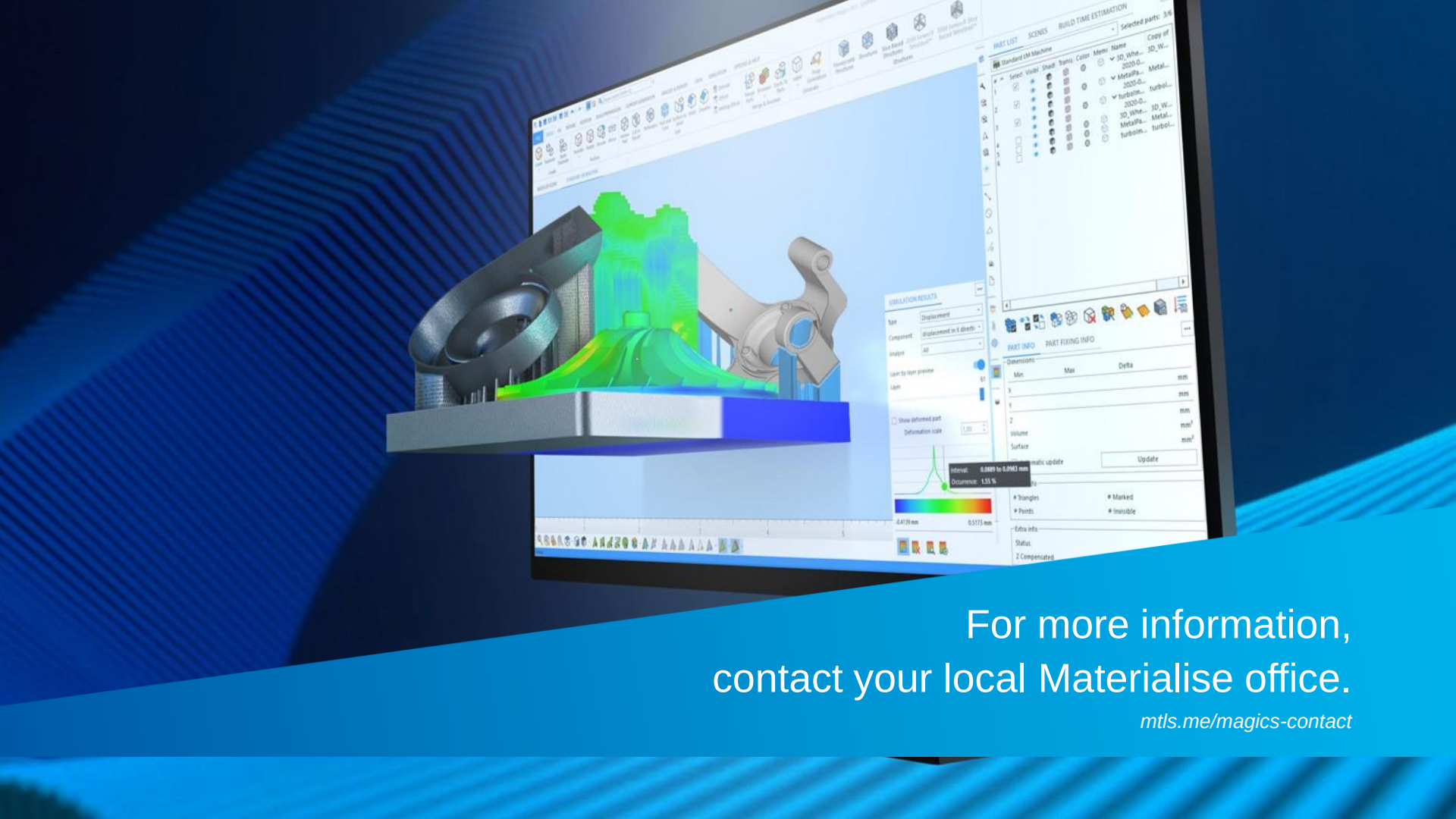
Nesting with supports

- To enable EBM and metal binder jetting users to benefit from the 3D Nester functionality, you can now use the 3D Nester with supports with a fixed height.



For more information,
contact your local Materialise office.

mtls.me/magics-contact