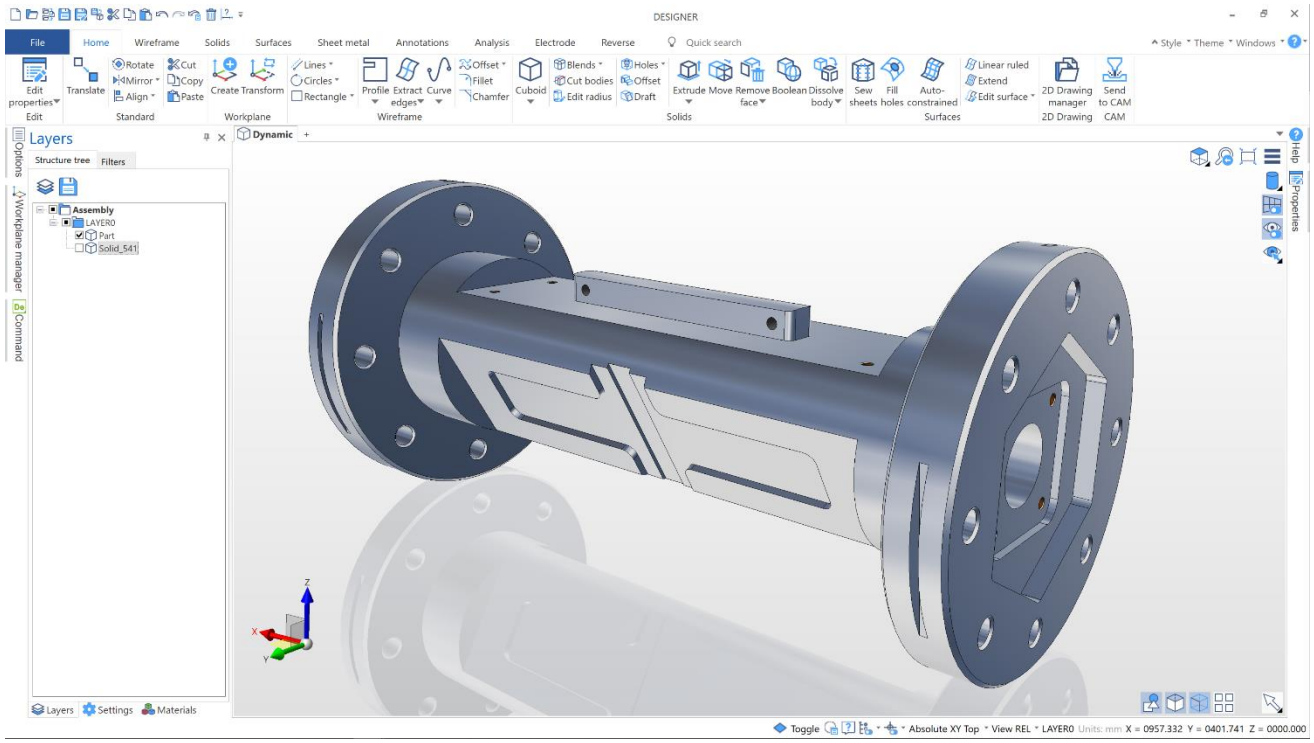
HEXAGON

WHAT'S NEW IN DESIGNER 2025.4



This document highlights new product features and enhancements in DESIGNER 2025.4.

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Highlights

DESIGNER is now an official product from Hexagon Manufacturing Intelligence with one core system licence and optional modules. See Feature Chart for details.

General

Improvements have been made to the user interface to improve interactions with every command. In addition, it is now possible to save any number of preset values inside commands which makes it quick and easy to switch between pre-saved values.

Macros have been improved so that they are more user-friendly. The automatic execution of a macro can be interrupted to display dialogs to ask questions and ask for user inputs. The responses can be used downstream in the macro for generating elements.

Surfaces

A suite of powerful part preparation tools has been added to the new optional Surfaces module. This suite of commands enables you to prepare parts for manufacturing. For example, you can modify large complex bends, create large offsets of complex parts, split parts into core and cavity and create parting and split plane run-off surfaces.

REcreate

The improvements to the optional reverse engineering module, REcreate, improve the power and usability of many of the commonly used functions. The addition of two new commands, enables quick automatic surfacing of meshes and a fast solution for fixing problematic mesh models.

Electrode

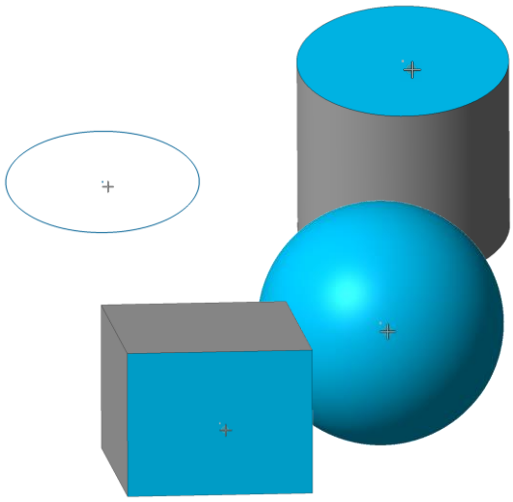
Enhancements to the optional electrode module make the functionality more powerful and intuitive. You can easily define custom process directions while defining an electrode.

Sheet Metal

Improvements have been made to material management which improve interoperability with third-party CAD files. In addition, the ability to connect the Hexagon cloud storage platform, SFx, provides access to a comprehensive material and bending database. Other improvements focus on usability to improve the overall user experience and to enhance and speed up existing processes.

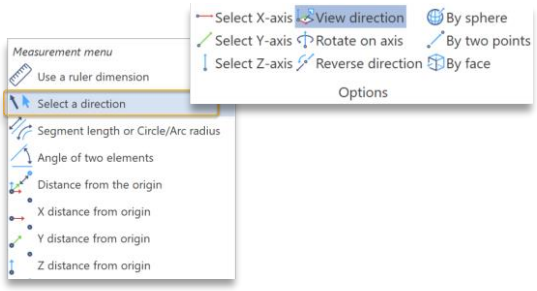
General Enhancements

Enhanced Pick Point



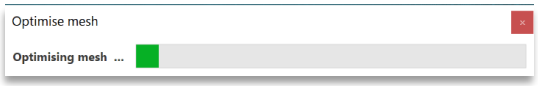
- New selection points available at the centre of faces and elements.
- This makes modelling and the selection of key points much faster and more intuitive.

Measurement menu



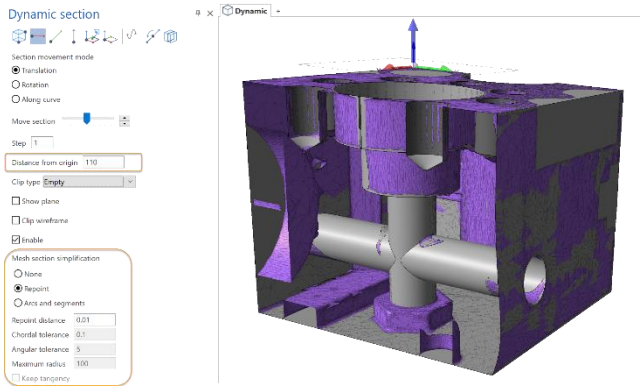
- It is now possible to select a direction from the measurement menu available on focus from every command modifier.
- This function gives you more control when creating elements.

Progress bar for longer operations



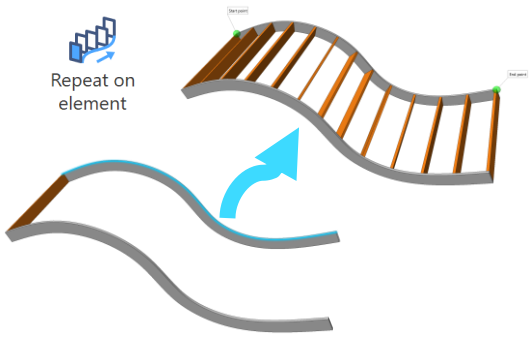
- Feedback to the user about the status of longer operations.
- This enhancement makes it clear that the software is calculating and shows the status of the operation.

Dynamic section



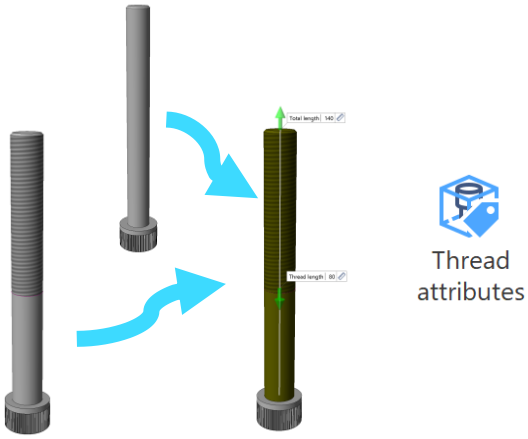
- It is now possible to view and input the distance from origin, and to repoint curves created from meshes.
- This function increases speed and control when working with the dynamic section.
- The new mesh options reduce the number of extra operations required to achieve the desired results.

New transformation command: Repeat on element



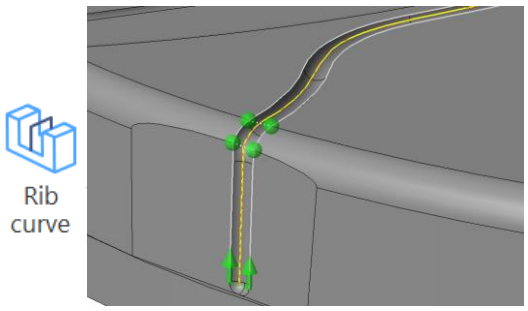
- This new function provides the ability to cleverly place elements along an edge or curve.
- This enhancement makes it quick and easy to create designs with repetitive 3D features.

Male thread management



- It is now possible to manage male threads in the same manner as tapped holes for consistency.
- It’s also possible to apply thread data to existing geometry.
- This enhancement enables full control when working with male threads.

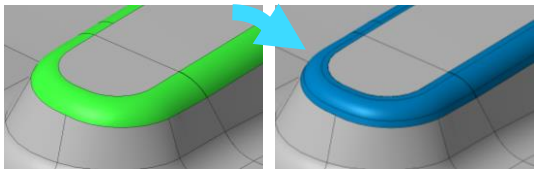
New command: Rib curve



- It is now possible to create the middle, or rib curve, between two chains of edges or curves.
- This function reduces the steps required to create a centre line. The centre line is commonly used in CAD modelling and toolpath generation.

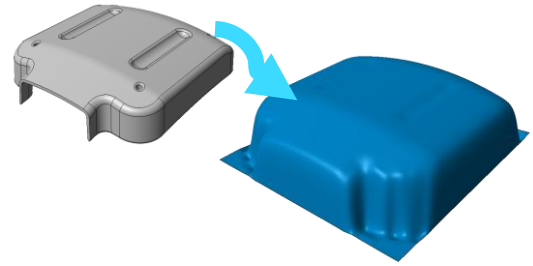
Surface Enhancements

New surfaces command: Bend relief



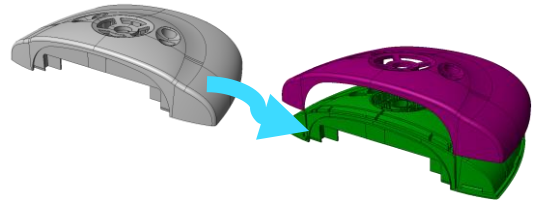
- It is now possible to reduce, remove and modify large, complex bends.
- This new function enables the modification of complex bend features quickly and easily in one operation to ensure optimal manufacturability.

New surfaces command: Large offset



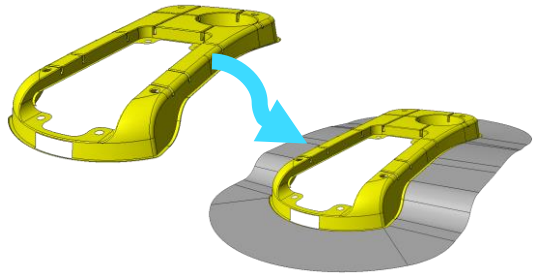
- It is now possible to create single approximated surface offsets from solid or surface models.
- This function creates offset surfaces of complex models in one simple operation.

New surfaces command: Split line



- It is now possible to split parts into their cavity and core halves to prepare a part for machining.
- This function enables parts to be efficiently converted into cavity and core surface models in a single operation.

New surfaces command: Parting plane



- It is now possible to create tangent parting and horizontal split surfaces from a surface model.
- This function enables the creation of complex run-off surfaces in a single operation.

Extend surfaces normal to the edges



- This enhancement allows many surfaces to be extended using the surface normal and the selected edges.
- This function enables the creation of normal surface extensions in a single operation.

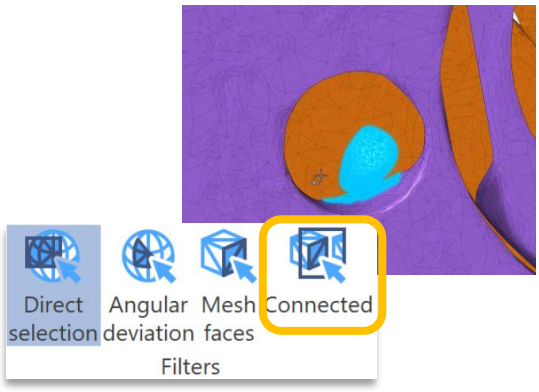
Reverse Engineering Enhancements

Improved triangle selection by angular deviation



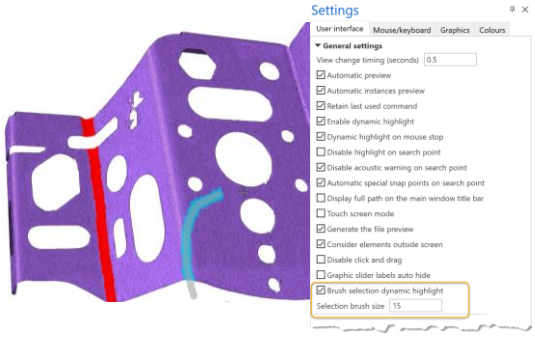
- When the angular deviation value is updated, new triangles that match the condition will automatically be added to the current selection.
- This new solution removes many unnecessary mouse movements and offers more dynamic feedback on the current selection.
- This vastly improves efficiency when working with triangles.

New triangle selection filter – connected triangles



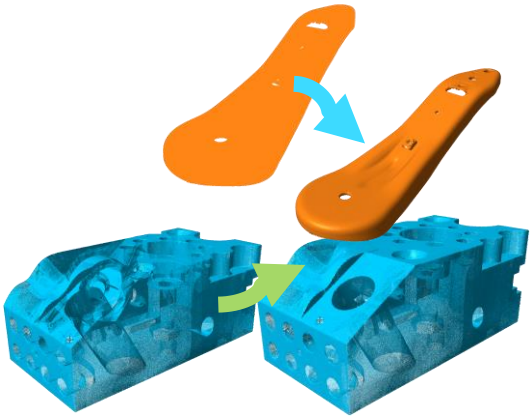
- This new method allows you to select only the triangles that are all connected and in the foreground of the selection region.
- This function is a more intelligent way of selecting triangles. Therefore, it is more efficient and reduces issues of wrong selection.

New triangle selection mode - triangles ‘by brushing’



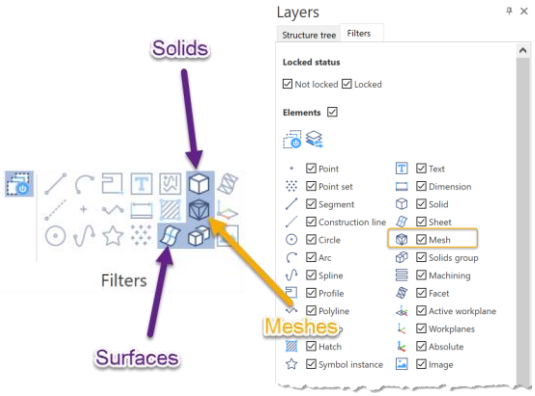
- A new paint brush selection method has been added for more dynamic triangle selection.
- This new method allows fast and dynamic triangle selection.

Improve display of point clouds



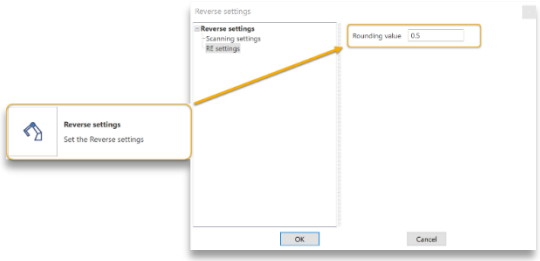
- Imported point files are now displayed with shading.
- Highlighted point clouds have improved shading.
- These enhancements improve the overall visuals of point clouds which makes the reverse engineering process more pleasant and easier to use.

New mesh filter to give mesh elements a unique identity



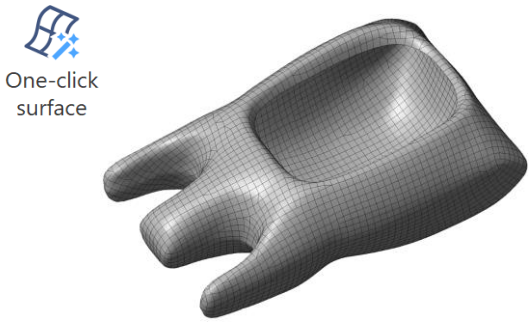
- Mesh entities are now unique entities for filtering and selection.
- This separates the mesh from the solids and surfaces and creates a more intuitive user experience when working with mesh elements.

Automatic rounding of elements from mesh/cloud



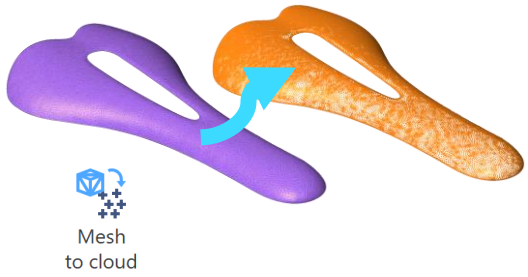
- Cylindrical and spherical values can be rounded to provide better values automatically.
- This improves the speed at which elements are created by producing a correctly rounded value which requires no further manual input.

Automatic surfacing: One-click surface



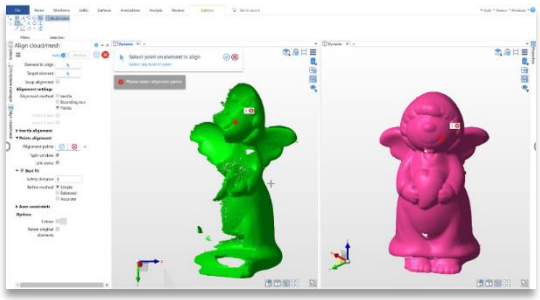
- New automatic surfacing command for generating freeform surfaces from a mesh.
- This function automatically creates freeform solid or surface models from meshes.

Convert point cloud to mesh



- New command which converts a mesh model into a randomised point cloud.
- This function proves invaluable when provided with poor quality mesh data. Rather than start the laborious process of fixing all of the problems, regenerating a cloud and creating a new mesh in DESIGNER, this will alleviate any issues and remove the need for any manual fixing.

Improved alignment by points



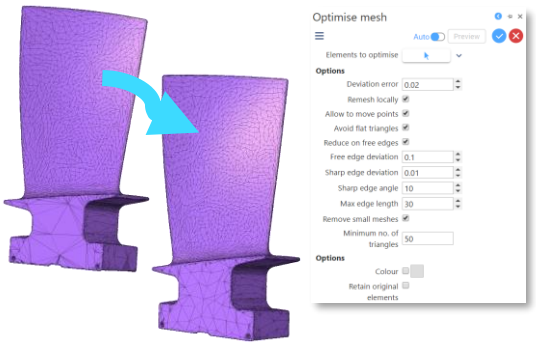
- The addition of linking and unlinking views, improved selection and removal of pairs of points.
- This function makes it easier than ever to align challenging datasets.

Bridge gaps



- Enhancements to the fill mesh holes command enable tangential bridging of large or open holes.
- This function makes it quick and easy to accurately fill large holes or gaps in mesh models which is a key part of the reverse engineering process.

Integrated and improved mesh optimisation

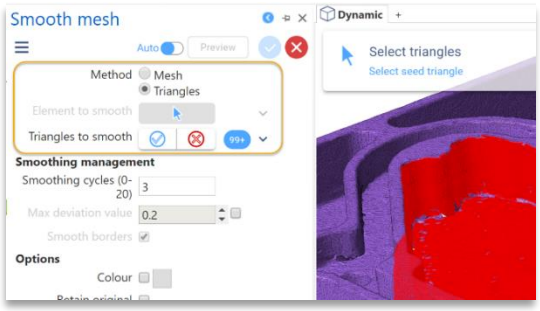


- More control has been introduced to the optimisation function, and optimisation has been added to the meshing commands.
- This enhanced function is critical for creating high-quality, lightweight datasets. The integration removes the need for an extra step. The added control creates better quality meshes, more easily.

Multi-select added to optimise and merge mesh commands

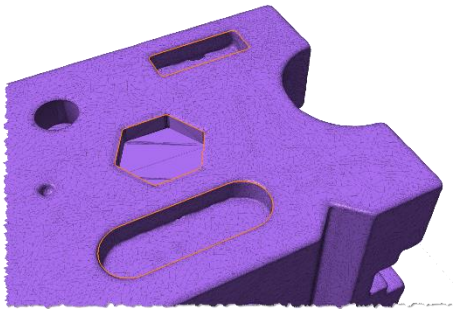
- Select multiple meshes and merge or optimise them in a single operation.
- The ability to multi-select meshes in these two commands dramatically improves the speed at which the operations can be performed. Everything can be done in a single operation, rather than one at a time, which could be time-consuming when working with large, fragmented meshes.

Refine and Smooth mesh improvements



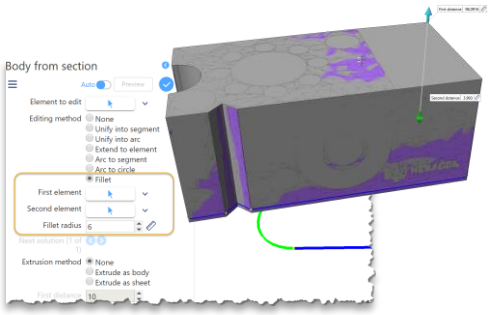
- The user interface has been refined to improve the usability of the refine and smooth mesh commands.
- This speeds up operations.

Adapt to element improvements



- Extract wireframe and adapt mesh to internal features.
- This reduces the number of operations that are required to create wireframe features from the middle of meshes.

Fillets and sliders added to Body from section



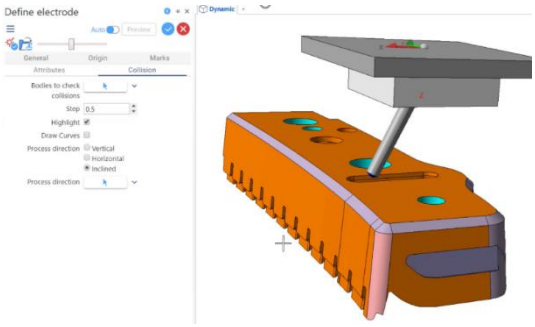
- The ability to add fillets and the addition of sliders to snap to elements has been added to the Body from section command.
- This speeds up the creation of quality solid and surface models from mesh sections.

Improved deviation feedback in Compare cloud / mesh

- Live feedback about the deviation as you roll the cursor over the part.
- This makes the process of validating a CAD model against a cloud or mesh much smoother, faster and more intuitive.

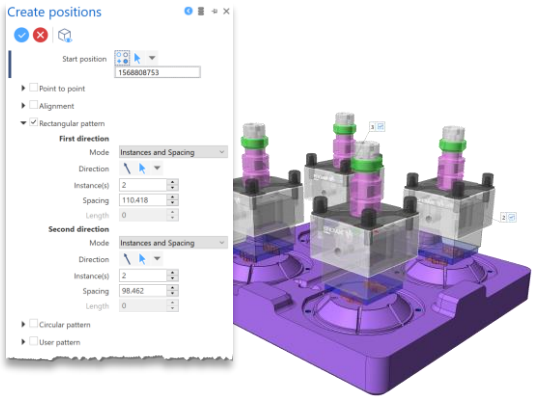
Electrode Enhancements

Create process direction during Define electrode



- The ability to add custom burn directions during the electrode definition command.
- This speeds up the electrode creation process, reducing subsequent, manual steps.
- The new method is now more intuitive as it requires fewer user inputs and is more automatic.

New command for multi-position electrodes



- Simplified process, consistent user interface and correctly managed data.
- This makes the process of creating and managing multi-positional electrodes fast and easy to use.

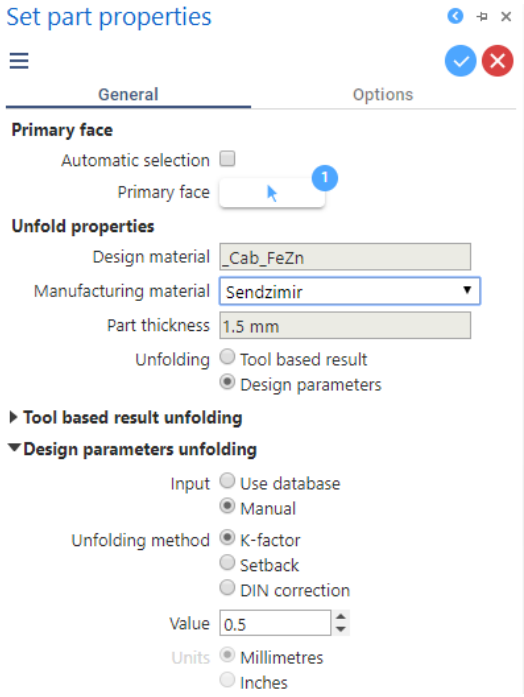
New command to export electrode project data

- The ability to export and save all required data including XML for EDM machine.
- This enables the quick extraction of all required data for manufacturing in one, simple operation.

Sheet Metal Enhancements

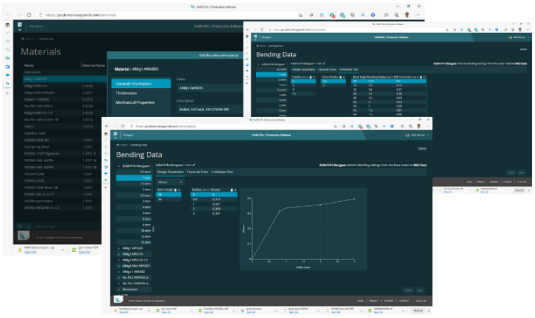
Materials

Design Material



- DESIGNER 2025.4 is capable of reading the design material from third-party CAD files. This material is displayed and can then be matched with a material from the materials database.

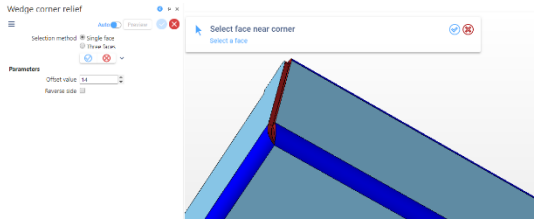
Materials Database



- DESIGNER 2025.4 uses a comprehensive material and bending database, stored in the cloud at Hexagon SFx. The connection with this database gives access to advanced material properties and bending data, such as favourite unfolding methods, v-widths and tools.

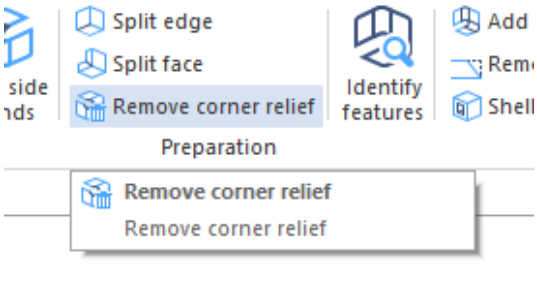
Bends and Corner Reliefs

Fast and Automatic Selection

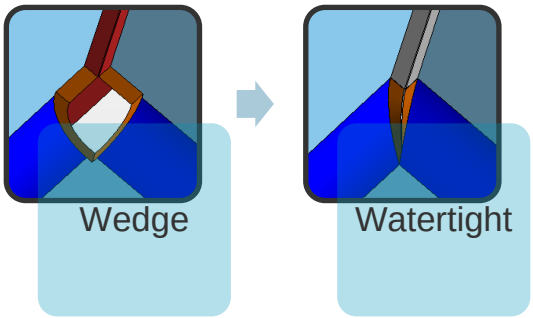


- When applying any kind of corner relief (wedge, circular or watertight), it is now possible to select the corner with a single click.

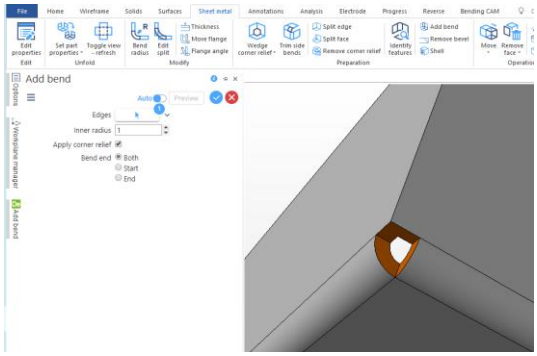
Delete Corner Relief



- A new function allows the user to remove a pre-existing corner relief which makes it really easy to change corner solutions.



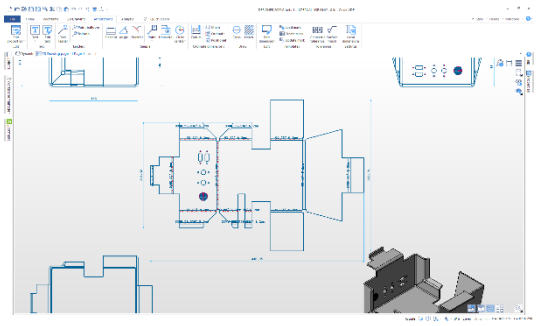
Automatic Reliefs



- Bend reliefs can now be automatically added when adding bends to the part.

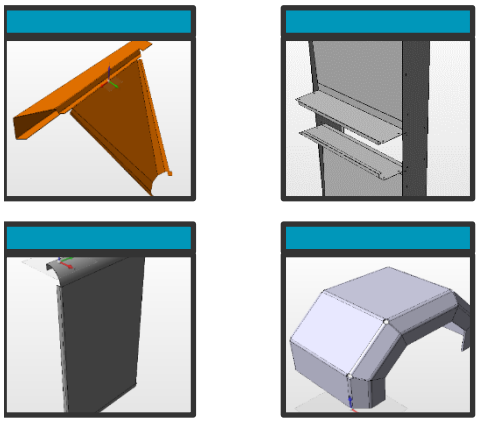
Enhanced Unfolding

Bend Lines and Data in 2D Drawing



- Both bend extents, bend lines and bend details are now shown in the 2D drawing.

Difficult Parts



- Many more difficult part shapes can now be successfully unfolded.