

spScan 2022.1

Upgrade News

New Features

[Edit]-[spScan Settings]-[Save Settings]

Various spScan settings can be saved as a .spScanSettings file.

Abolished the [Edit]-[Migrate Settings] menu.

Created a new menu, [Edit]-[spScan Settings], and added [Save Settings] feature.

[Edit]-[spScan Settings]-[Load Settings]

Various spScan settings can be imported from a .spScanSettings file.

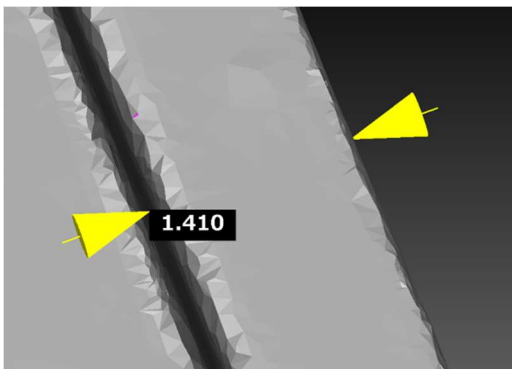
Abolished the [Edit]-[Migrate Settings] menu.

Created a new menu, [Edit]-[spScan Settings], and added [Save Settings] feature.

[Analyze]-[Distance]-[Distance(Polygon Mesh and Polygon Mesh)]

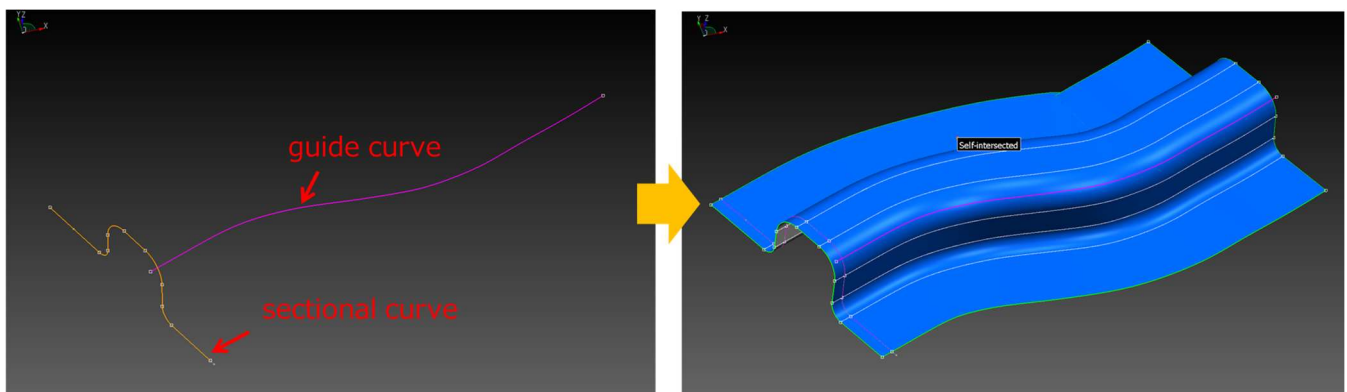
The distance between polygon meshes can be measured.

The distance dimensions of the rib thickness of a solid and the panel-thickness of a pressed panel can be verified.



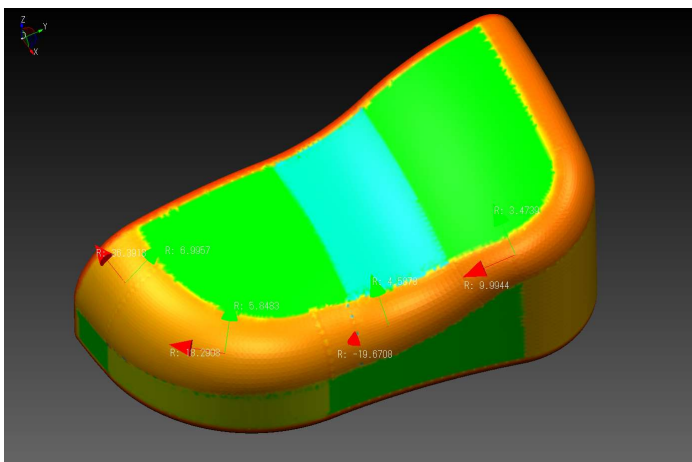
[Demo]-[Create Surface]-[Create Sweep Surface]

A sweep surface can now be created.



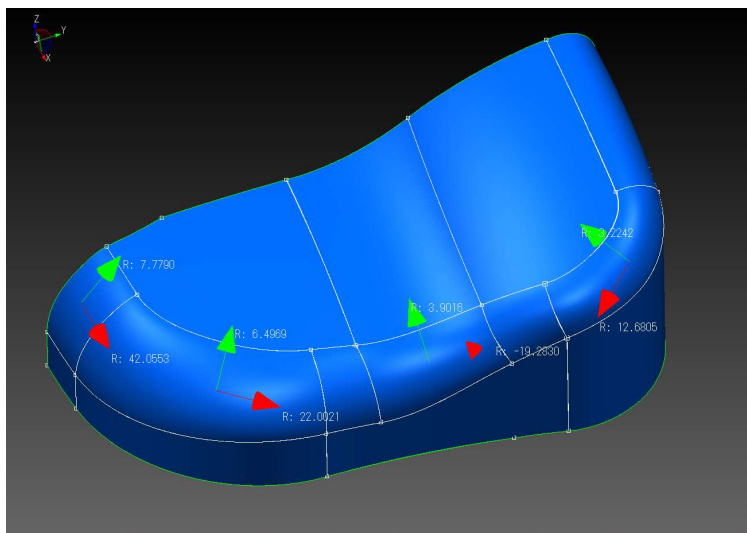
[Demo]-[Analyze]-[Principal Curvature Direction (Mesh)]

Display the curvature as well as the maximum and minimum principal curvature directions of polygon mesh using arrows.



[Demo]-[Analyze]-[Principal Curvature Direction (Surface)]

Display the curvature as well as the maximum and minimum principal curvature directions of a surface using arrows.



Enhanced Features

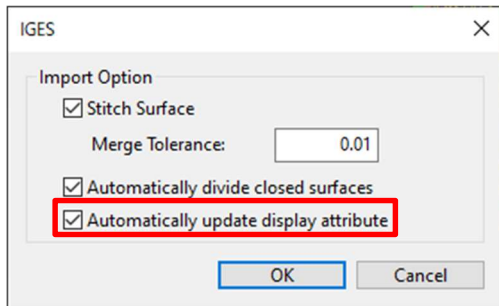
[File]-[Open]

Accelerated the processing time.

An example of the response time improvement: 280 sec → 60 sec. Almost 4.7 times!

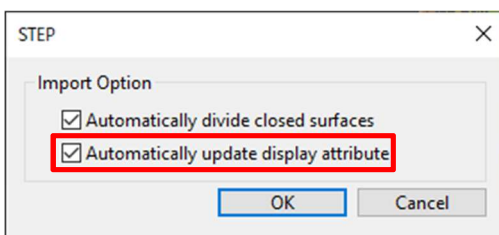
[File]-[Import]-[CAD]-[IGES]

The display attribute can be updated upon import.



[File]-[Import]-[CAD]-[STEP]

The display attribute can be updated upon import.



[File]-[Export]-[CAD]-[IGES]

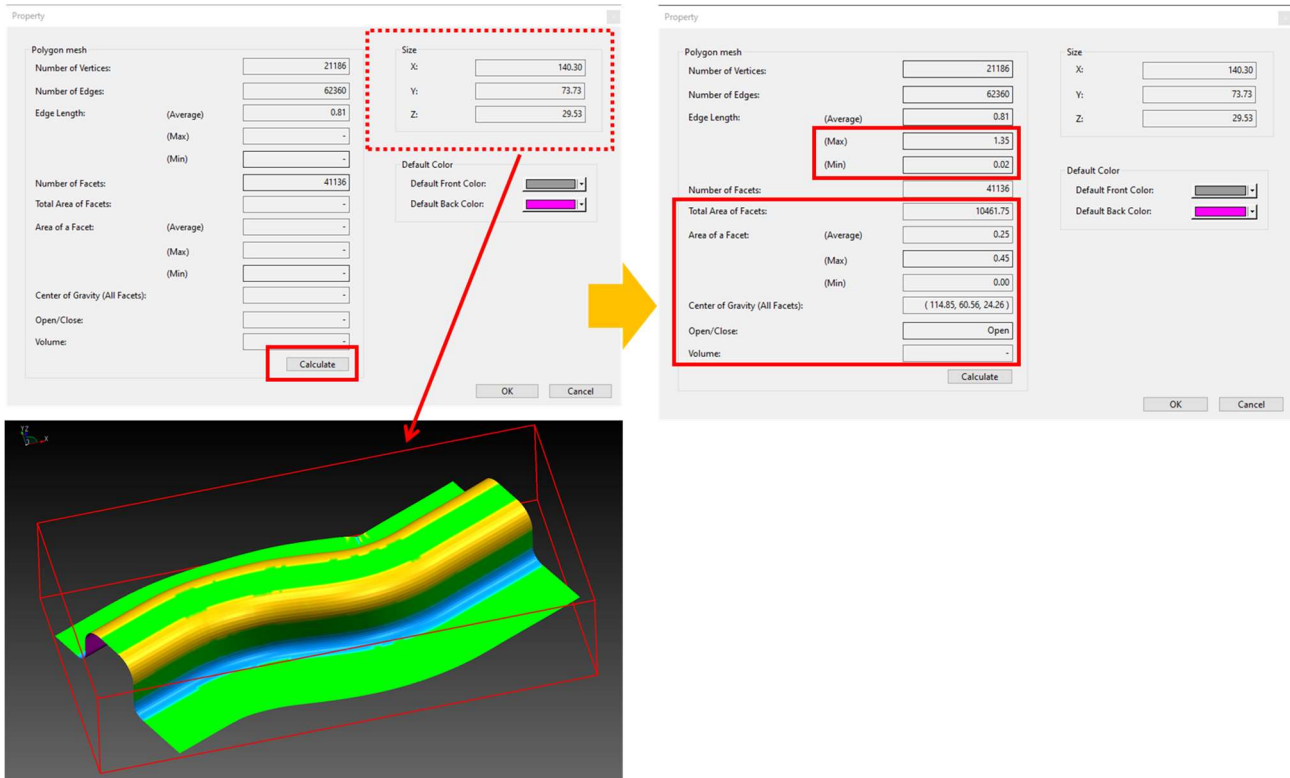
- Approximate to primitive shapes upon export.
- The surface size can be modified.
- Accelerated the processing time.
 - An example of the response time improvement: 60 min → 2 min. Almost 30 times!

[File]-[Export]-[CAD]-[STEP]

- Approximate to primitive shapes upon export.
- The surface size can be modified.
- Accelerated the processing time.

Polygon Mesh

Added items shown in the property.



Selecting polygon Mesh

The selected polygon meshes are not initialized when selecting polygon mesh using [Rectangle], [Circle], [Polygon] selection filter, even when the view has been changed through [Zoom] or [Pan]. Note, however, while selecting polygon mesh, the view operations such as [Central axis fixed rotation], and [Rotation around specified center of rotation] is not allowed.

[Polygon Mesh]-[Reshape Outer Edge]

[Clip View] and [Select] commands can be executed while a menu command is running.

[Curve]-[Remove Curve]

Accelerated the processing time.

- An example of the response time improvement: 1798 sec (almost 30 min) → 90 sec (1 min 30 sec) Almost 20 times!

[Surface]-[Create Multiple Base Surfaces]

The potential surfaces can be selected or unselected in the unit of elements during the preview.

[Surface]-[Patch]-[Create Patch]

Changed the settings of [Preserver Shape] to exclusively target boundary curves and curves with surface continuity configured, instead of all curves as it was in version 2021.1.

[Surface]-[Patch]-[Create Patch Surface]

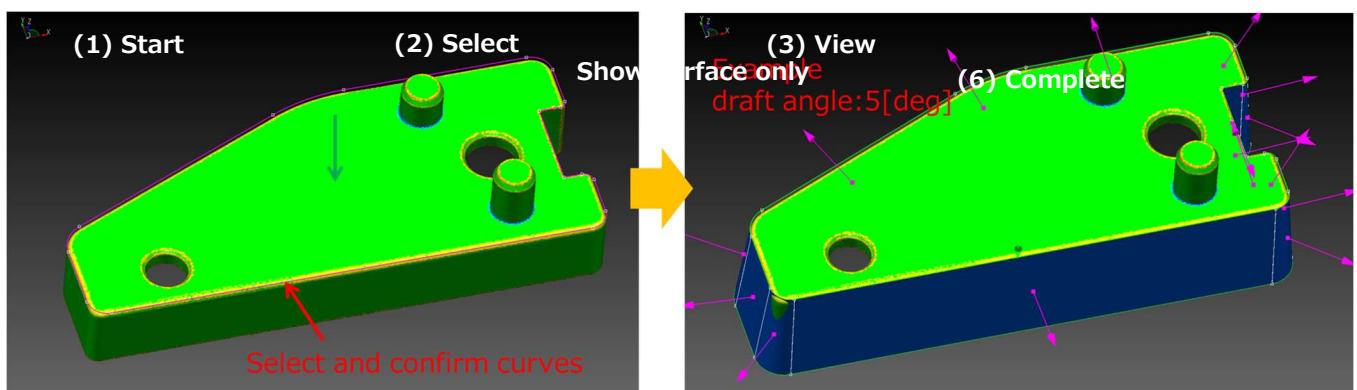
- When there is a G0 curve that is not continuous, the "CHECK!" annotation remains even after exiting the menu command.
- According to the state of the polygon mesh, improved so that the patch surfaces do not deform extremely.

[Surface]-[Patch]-[Auto Create Patch]

- When there is a G0 curve that is not continuous, the "CHECK!" annotation remains even after exiting the menu command.
- According to the state of the polygon mesh, improved so that the patch surfaces do not deform extremely.

[Surface]-[Extrude Surface]

A gradient (angle) can be configured on an extruding surface.

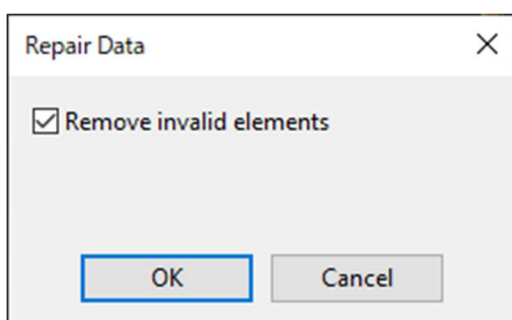


[Analyze]-[Remove Annotation]

The menu is now available in the Polygon Phase and Grouping Phase, due to the addition of [Analyze]-[Distance (Polygon Mesh and Polygon Mesh)].

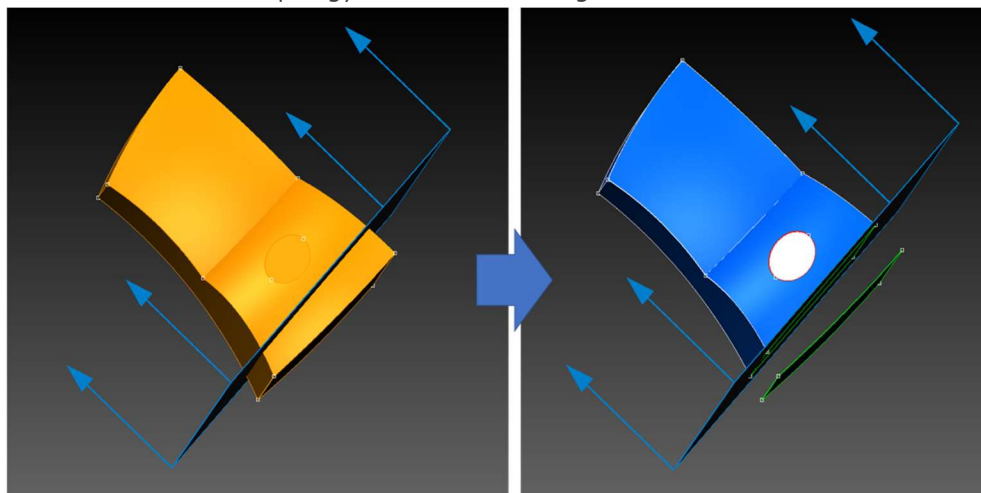
[Demo]-[Tool]-[Repair Data]

Enabled creating a new file for data correction, and automatically import polygon mesh data, and surface data after removing surfaces with a defect.



[Demo]-[Edit Surface]-[Cut with Plane]

- Modified to divide a surface which has an inner loop.
- Modified to build a topology even when dividing a surface which does not have a group.



Resolved Issues

[Curve]-[Create 2D Curves]

- Addressed an issue where the [Distance]/[Maximum distance] dialogs are not displayed.
- Addressed an issue where the initial locations of [Distance]/[Maximum distance] dialogs are not saved for relaunching.

[Surface]-[Create Surface]

Addressed an issue where Polygon Mesh Error Display mode is changed to Polygon Mesh Curvature Display mode in the middle of creating a surface.

[Surface]-[Patch]-[Create Patch Surface]

Addressed an issue where one cannot Redo while selecting a patch surface.

[Demo]- [Edit Surface]-[Cut with Plane]

Addressed an issue where a curve cannot be divided and a curve with length 0 is created.

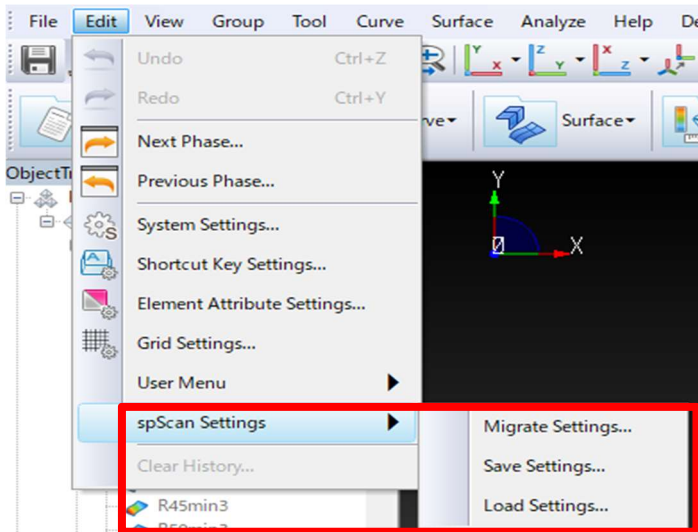
[Demo]- [Tool]-[Repair Data]

Addressed an issue where spScan slows down after executing the command.

Others

[Edit]-[spScan Settings]-[Migrate Settings]

- Changed the location of [Edit]-[Migrate Settings].
- Abolished the old [Edit]-[Migrate Settings] menu.
- Created a new menu, [Edit]-[spScan Settings], and added [Migrate Settings] feature.



[Edit]-[Context Menu Settings]

Moved the [Context Menu Settings] menu from [Demo] to [Edit] menu.

[Curve]-[Project Curve (Specified Plane)]

Moved the [Edit Curve]-[Project Curve (Specified Plane)] menu from [Demo] to [Curve] menu.

[Curve]-[Create Perimeter Line]

Moved the [Create Perimeter Line] menu from [Demo] to [Curve] menu.

[Surface]-[Change Surface Size]

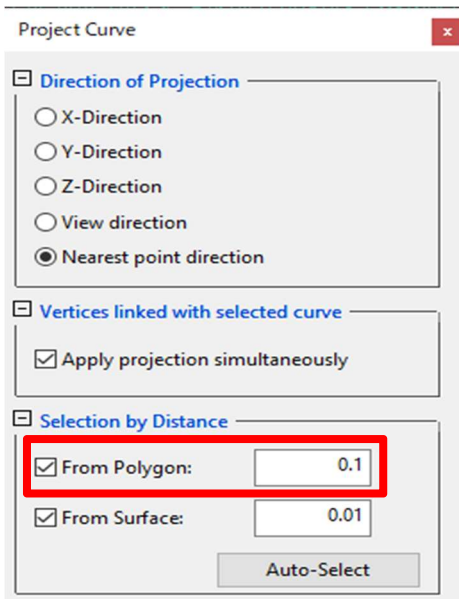
Moved the [Edit Surface]-[Change Surface Size] menu from [Demo] to [Surface] menu.

[Surface]-[Create Surface of Revolution]

Moved the [Create Surface]-[Create Surface of Revolution] menu from [Demo] to [Surface] menu.

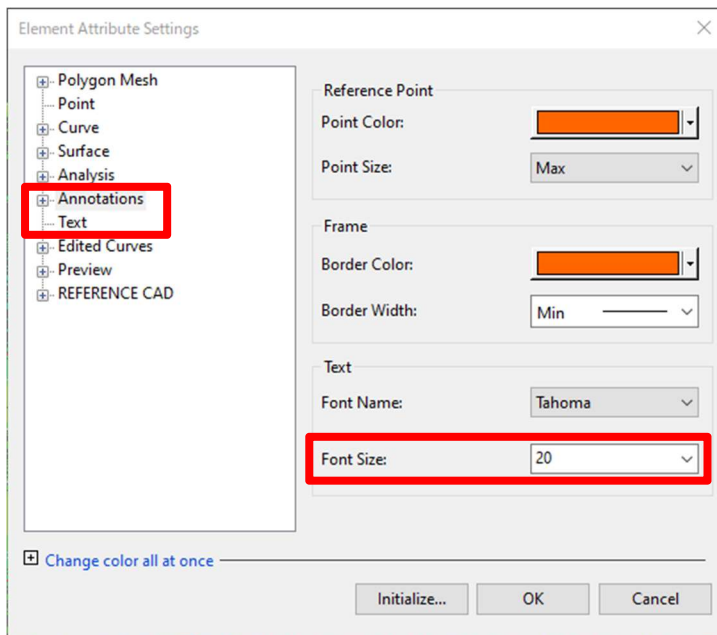
[Curve]-[Project Curve]

- Changed the initial value in the projection to the polygon mesh from 0.3 to 0.1 (mm).
- The value configured in the dialog previously will now be saved.



[Edit]-[Element Attribute Settings]

- Changed the initial Font Size in Annotations and Texts settings from 12 to 20.
- The annotation size can be modified in [Annotations] and [Text] under [Edit]-[Element Attribute Settings] menu.



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