

spScan 2017.1

Upgrade News

2017/03

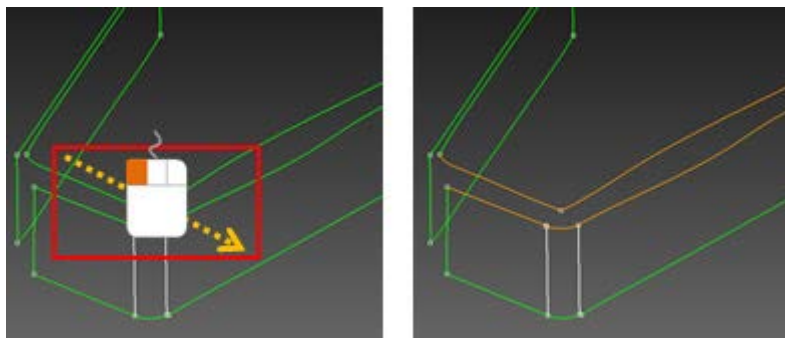
[spScan 2017.1.0]

Main Topics

Improved [Create Fillet Surface] and [Create Fillet Surface with Radius] functions. This enhancement allows reduction of the man-hour for creating fillets to less than 50% of what it took in the past.

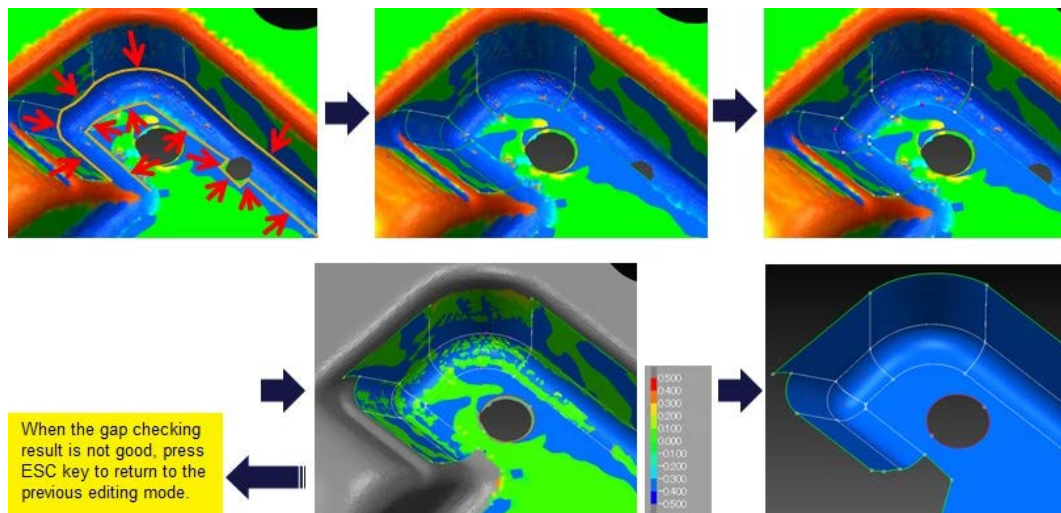
Standardization and Improvement in R-Stop-Curve Selection Method

- Standardized curve selection method in [Surface]-[Create Fillet Surface], [Create Fillet Surface with Radius] and [Edging] and created a curve selection toolbar.
- Added "Smart Filter" to make the selection of hidden curves and unnecessary curves more difficult.
- "Select Continuous Curves Automatically" is now available in [Create Fillet Surface with Radius] and [Edging].



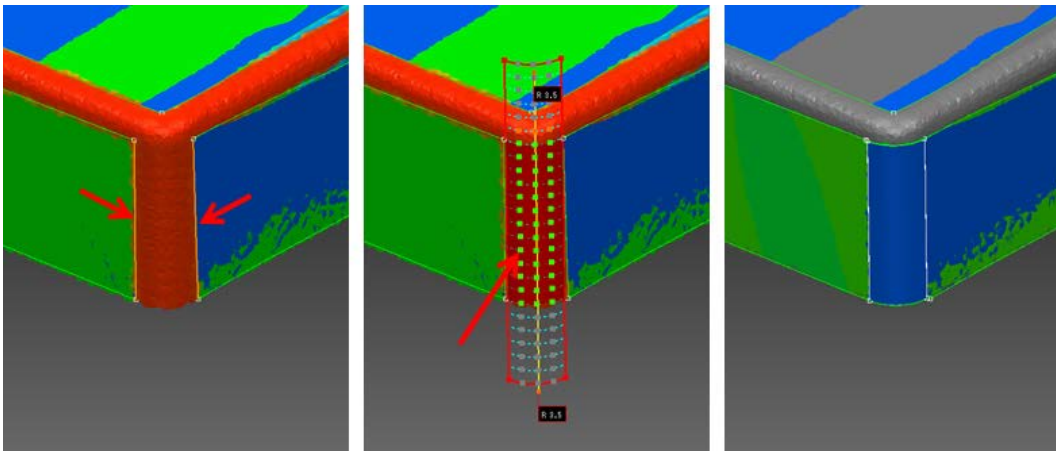
[Surface]-[Create Fillet Surface]

- Reviewed the algorithm and enabled the creation of R-stop-curve that will be difficult to get wrinkled. Also, creating multiple consecutive fillet surfaces at the same time is now easier.
- Wrinkles are less likely to be generated around fillet-section-curve.
- Added a preview function of surface, so that when there is a problem with a fillet surface, the R-stop-curve can be re-edited.
- Added more ways to add fillet section curve, and now even long fillets can be created reasonably as a clean fillet surface.



[Surface]-[Create Fillet Surface with Radius]

- Added a gap's preview display function.
- Added an optimization function for a specified radius.
- Improved an R value estimated at the beginning.



General

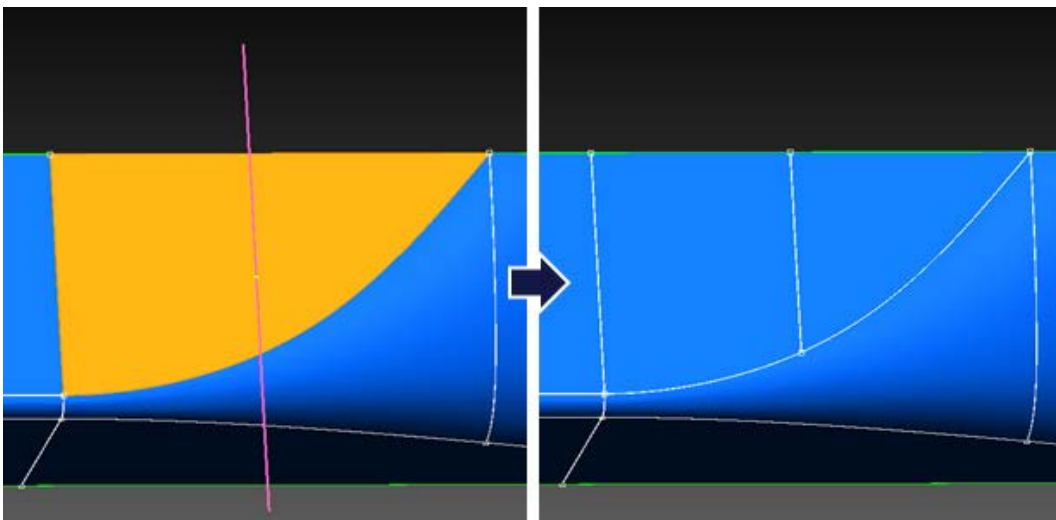
- A notification will be given 7 days prior to the license expiration.
- Modified the closing confirmation dialog.



New Features

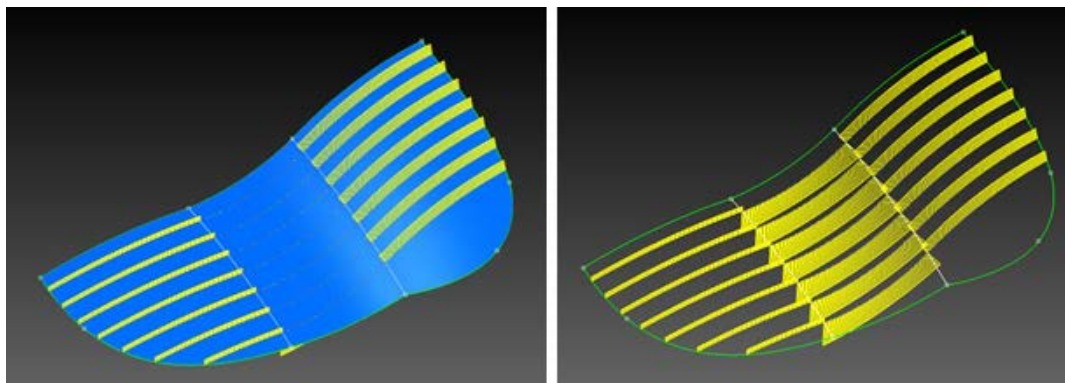
[Surface]-[Divide Surface]

Added a function to divide a surface. When this function is used to divide a surface, the divided part becomes a boundary surface.



[Analyze]-[Curvature (Section Curve)]

Added a function to display a surface's curvature.

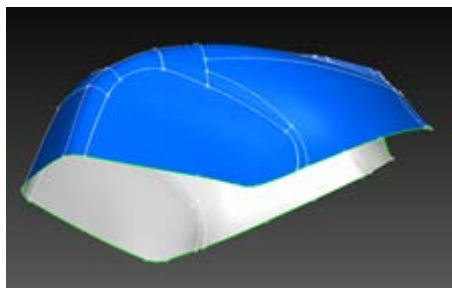


[Analyze]-[Detect Trimmed or Bounded Surface]

Added a function to study the state of a surface's boundaries.

[Analyze]-[Calculate Volume]

Added a function to calculate a volume.



Message
Volume : 10938435.94

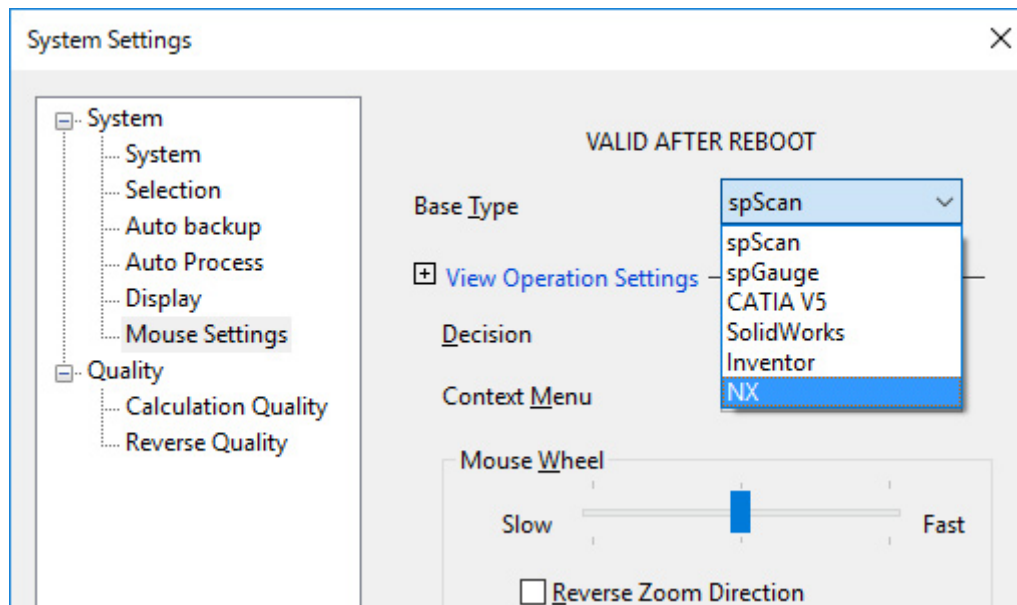
Improved Features

[File]-[Import]-[CAD]-[IGES]/[STEP]

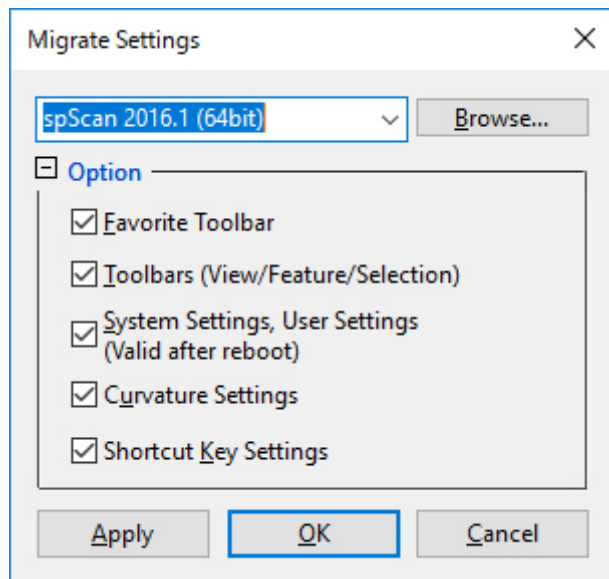
Added a function to automatically divide a closed surface.

[Edit]-[System Settings]

Mouse operations like those in NX are now supported.



Short cut key settings can now be migrated.



[Polygon]-[Fill Hole] / [Fill Hole Using Surface]

The processing speed has been accelerated.

Improved the Display of the Selected Group

Improved the selection method of groups, and made it easier to know which group is being selected.

[Group]-[Expand]

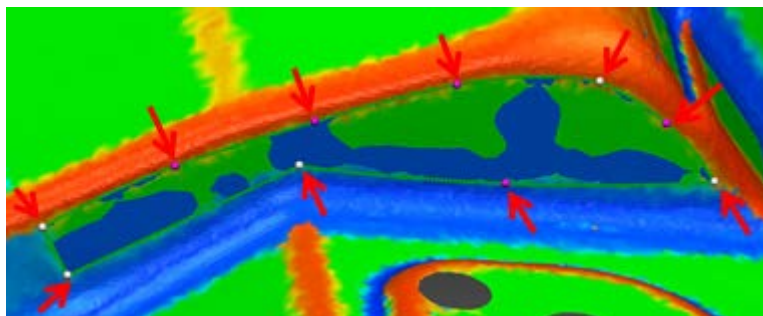
Now the size of the paint brush can be changed using Shift + mouse wheel.

[Curve]-[Edit Control Point]

- Changed the layout of the dialog.
- Added more constraint types for moving.
- The moving direction is now displayed on screen.

[Curve]-[Edit Curve]

Changed the way editing curves are displayed and hence the editing is now easier.

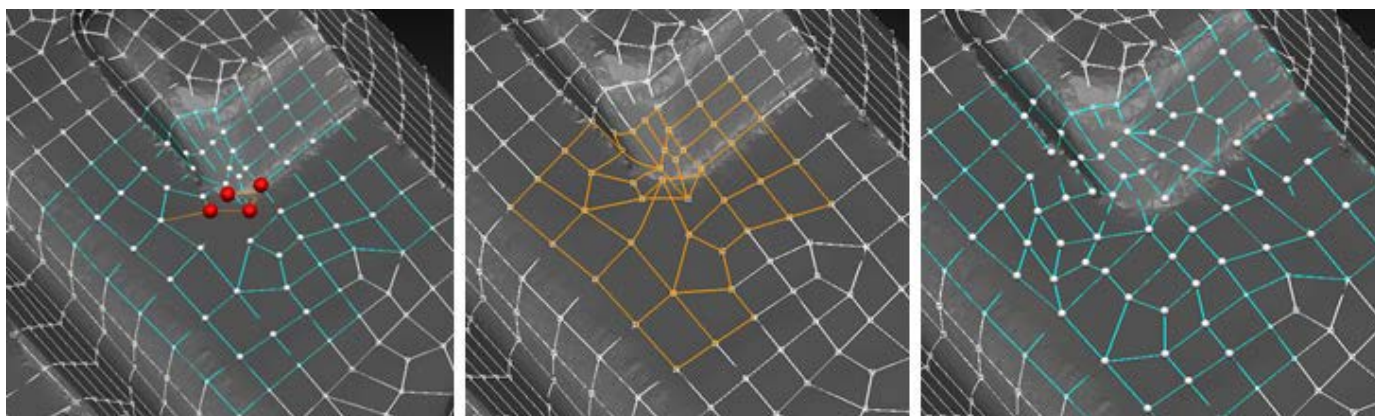


[Surface]-[Patch]-[Create Patch Surface]

Added a setting to smooth a patched surface. A more smoother patch can now be created.

[Surface]-[Patch]-[Edit Patch]

You can now execute patch recreation function while editing.



[Surface]-[Patch]-[Repatch]

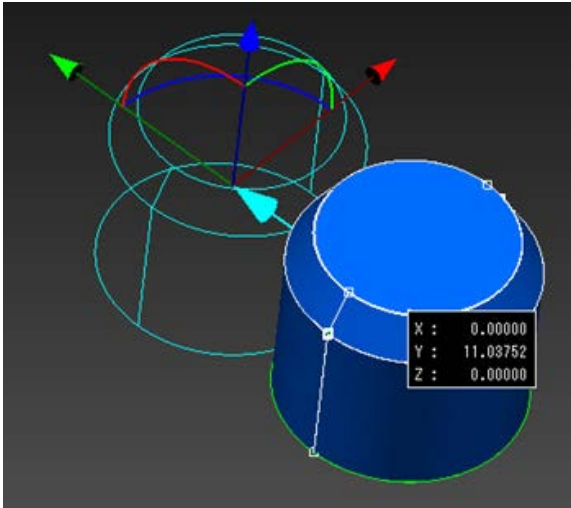
Improved the division method during recreation, and hence a more natural division result can be obtained.

[Surface]-[Create Primitive Surface]

Improved the user interface.

[Surface]-[Copy]-[Move]

Now you can copy a surface by specifying the moving amount from the pre-moving position.

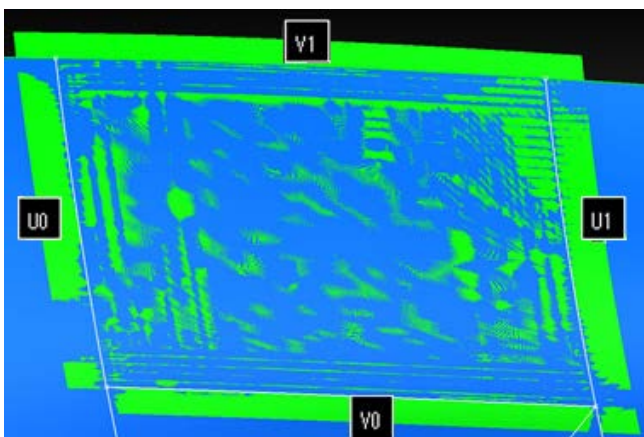


[Surface]-[Fit Surface to Polygon Mesh]

Improved the initial value of continuity.

[Surface]-[Expand Base Surface]

Improved the user interface of U and V.



[Surface]-[Remove Surface]

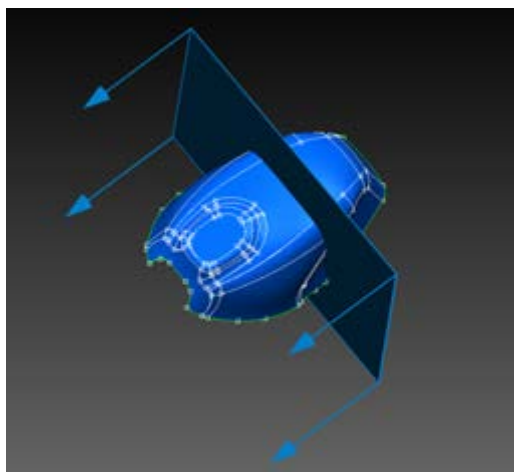
Added [Self-Intersected Surface] as a reference to the low quality surface.

[Help]-[Setup License]

The server for a floating license can now be specified with the name of a machine.

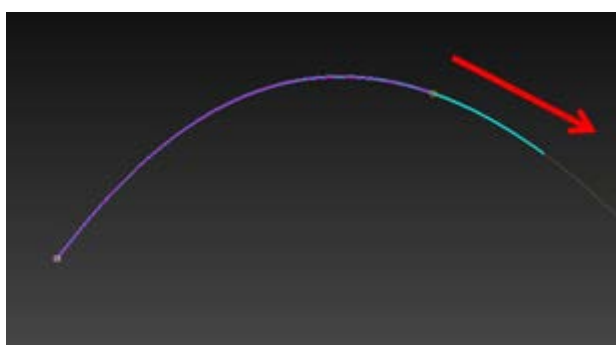
[Demo]-[Edit Surface]-[Cut with Plane]

Changed the plane display method, and hence the front and the back of a surface can be differentiated more easily.



[Demo]-[Edit Curve]-[Extend Curve]

- The amount of extension can now be managed on 3D View.
- The amount of extension can now be specified numerically.



[Demo]-[Reshape Outer Edge (Plane)]

The position of the plane can now be established, by entering a numerical value.

Resolved Issues

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

Fixed a bug where a shell shape is not exported correctly.

[Curve]-[Edit Vertex]

Fixed a bug where an end point on a free curve could not be moved.

[Surface]-[Fit Surface to Polygon Mesh]

Fixed a bug where polygon mesh crumbles when it is fitted to a surface created using [Create Primitive Surface] or [Create Fillet Surface with Radius].

[Surface]-[Create Blend Surface]

Fixed a bug where a blend surface is not created correctly.

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

Fixed a bug where distance is not calculated in certain locations.

[Demo]-[Import IGES (Free Curve)]

Fixed a bug where the dialog to configure surface stitching option is displayed multiple times.

[Demo]-[Cross Section]

Fixed a bug where the menu command does not end.

New Demo Features

[Demo]-[Polygonize CAD]

This function polygonizes CAD data and import it.

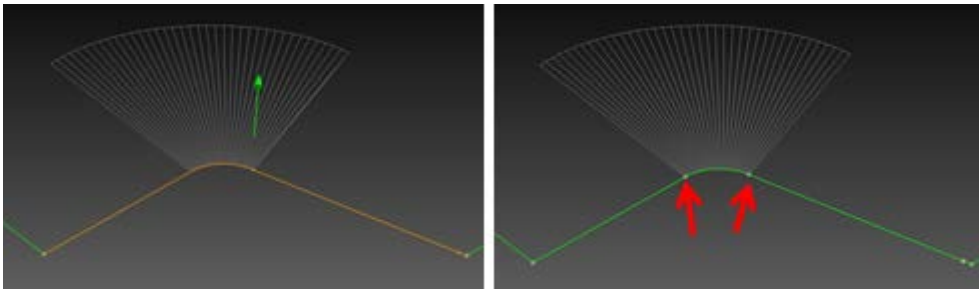
[Demo]-[Analyze]-[Check Surface Quality]

This function detect low quality surfaces. The function can detect wrinkled surfaces and self-intersected surfaces.

[Demo]-[Edit Curve]-[Divide Curve]

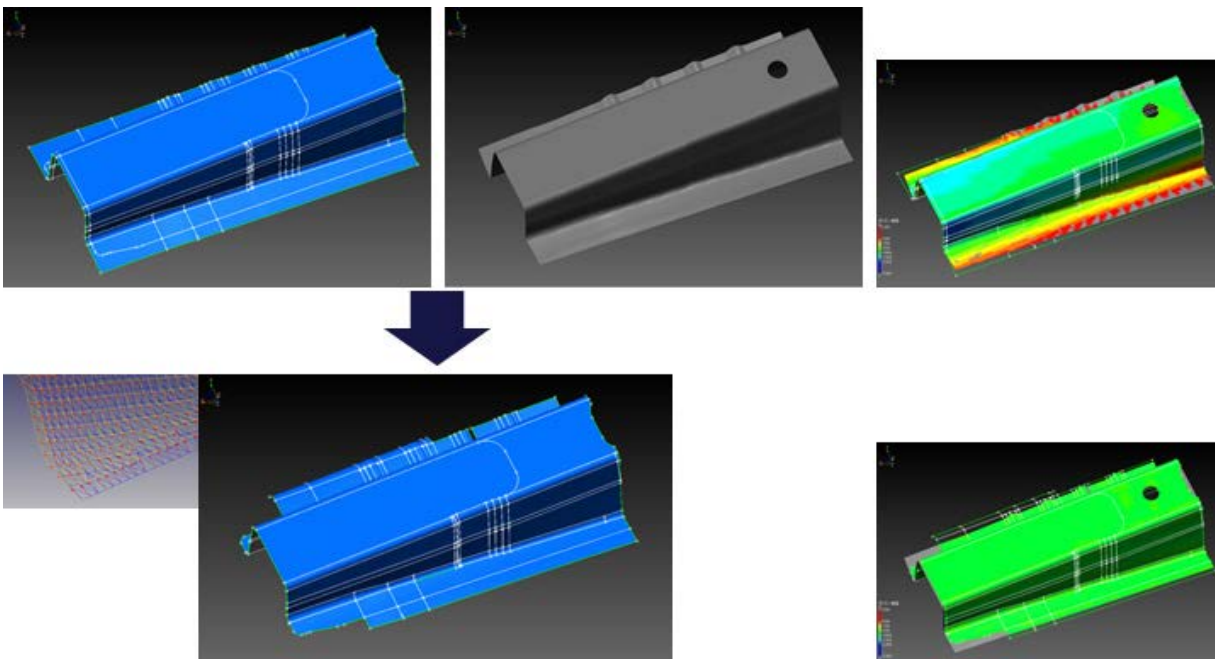
This function divides a curve. A curve can either be divided in "Equal" lengths, or divided where projected curvature inclination changes "Based on 2D Curvature."

[Demo]-[Edit Curve]-[Divide Curve Equally] menu present in spScan versions 2016.1 and before have been integrated to this menu.



[Demo]-[Fit Multiple Surfaces to Polygon Mesh]

This function selects multiple surfaces and then fit them to the polygon mesh.

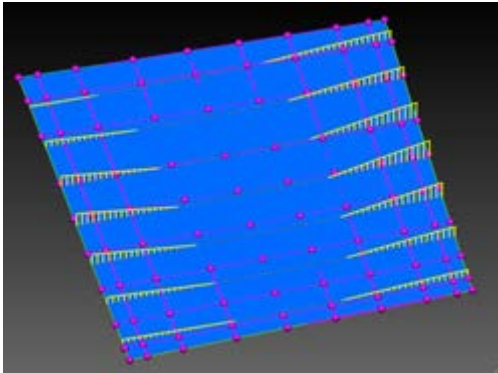


[Demo]-[Fairing Curves]

This is a curve editing function to create a smooth curve.
Curves can be edited without referring to the polygon mesh.

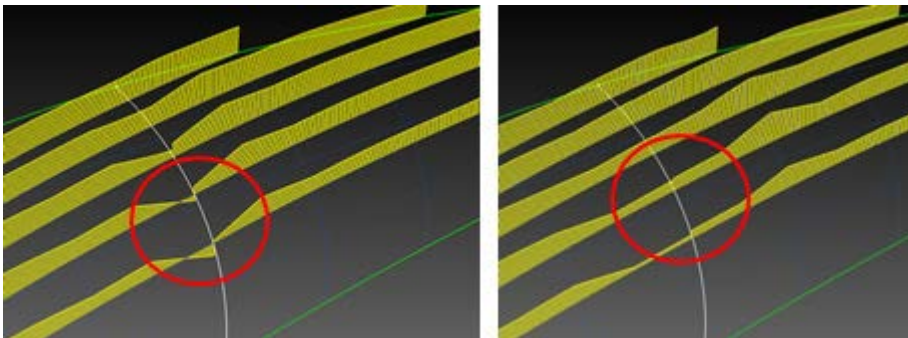
[Demo]-[Fairing Surfaces (Control Points)]

This is a surface editing function to create a smooth surface.



[Demo]-[Fairing Between Surfaces]

This function creates smooth surfaces after adjusting continuity between surfaces.



Developer

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