

# spScan 2024.1

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## Upgrade News

## Enhanced Features & Specification Changes

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### [Polygon Mesh]-[Smoothing (Boundary)]

Polygon edges can now be smoothed.

### [Polygon Mesh]-[Extend Outer Edge]

Polygon edges can now be extended.

### [Curve]-[Create Perimeter Line]

Added post-processing options.

### [Surface]-[Remove Surface]

- Curves can be deleted at the same time after a surface is deleted.
- Allows selection of the front side of the visible state.

### [Surface]-[Create Tube Surfaces]

Added the ability to invert the normal direction of a cross-sectional plane.

### [Surface]-[Surface Repair Tools]-[Connect Surfaces Using Bridge]

It is now possible to make selections even in areas within the inner loop.

### [Analyze]-[Export spGauge Viewer Light]

Thinning rate can now be specified at output.

### [Curve]-[Remove Curve]

All free curve selections are now faster.

## Resolved Issues

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### [Curve]-[Edit Curve]

Addressed the issue that could cause spScan to crash after selecting and confirming multiple curves.

### [Surface]-[Create Surface of Revolution]

Addressed the issue where the screen would flicker when hovering the cursor over an edit box.

### [Surface]-[Patch]-[Quadrangulate Polygon Mesh]

Addressed the issue that could cause exception errors during curve projection.

## [Polygon Mesh]-[Remove Isolated Polygon Mesh]

Addressed the issue that caused an exception when deleting an island with coordinates far from the origin.

## Dialog display position

Addressed the issue that caused the settings dialog to be displayed in the upper right corner of the view instead of in the center of the view when the command was launched.

- [Polygon Mesh]-[Auto Edit]
  - File dialog displayed when Polygon Mesh does not exist.
- [Edit]-[spScan Settings]-[Migrate Settings]
- [Surface]-[Stitch Surfaces]
- [Surface]-[Unify Surface Directions]
- [Analyze]-[Check Surface Direction]
- [Demo]-[Polygonize CAD]
  - File Selection Dialog
- [Demo]-[Import IGES (Free Curve)]
  - File dialog displayed when CAD does not exist.
  - File dialog displayed when CAD is present.

## Others

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### [Polygon Mesh]-[Thin-Out]

- Changed "Information" in the dialog to "Number of facets" only.
- Removed "Aspect Ratio" from the dialog.

### [Polygon Mesh]-[Subdivide]

Changed "Information" in the dialog to "Number of facets" only.

### [Surface]-[Create Surface], [Demo]-[G2]-[Create G2 Surface]

"Selected Region Setting" has been unified with "Trimmed Surface or Interpolated Surface" which is the same expression as [Create Primitive Surface].

### Review of terminology

- The term "surface" has been changed to "face" in the settings dialog for the following commands.
  - [Curve]-[Auto Edit Curve]
  - [Surface]-[Create Multiple Surfaces]
  - [Surface]-[Create Multiple Base Surfaces]
  - [Surface]-[Create Surface]
  - [Surface]-[Create Primitive Surface]
  - [Demo]-[Create Surface]-[Create Multiple Surfaces (Sort by Area)]
  - [Demo]-[Obsolete Menus]-[Create Multiple Primitive Surfaces]
- When selecting an element, the element name is now displayed at the cursor position.

### Review of initial values

The initial values of the following settings have been changed.

- "Ratio of Used Vertices " : 98%
  - [Surface]-[Auto Create Surface]
    - ✧ "Setting(1)" Dialog
    - ✧ "Setting(2)" Dialog
  - [Surface]-[Create Multiple Surfaces]
  - [Surface]-[Create Multiple Base Surfaces]
  - [Surface]-[Create Surface]
  - [Surface]-[Create Fillet Surface]
  - [Surface]-[Create Fillet Surface with Radius]
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- [Surface]-[Fit Surface to Polygon Mesh]
  - ✧ [Fit Surface to Polygon Mesh] Dialog
- [Demo]-[Create Surface]-[Create Surface (Polygon Mesh 0%)]
- [Demo]-[Create Surface]-[Create Surface (Control Point Appointment)]
- [Demo]-[Create Surface]-[Create Multiple Surfaces (Sort by Area)]
- [Demo]-[Replace Patches]
- [Demo]-[Fit Multiple Surfaces to Polygon Mesh]
- [Demo]-[G2]-[Create G2 Surface]
- [Demo]-[Obsolete Menus]-[Create Fillet Surface 2016]
- "Update distance [Polygon-Surface]" : on
  - [Surface]-[Auto Create Surface]
  - [Surface]-[Create Multiple Surfaces]
  - [Surface]-[Create Surface]
  - [Surface]-[Create Primitive Surface]
  - [Surface]-[Copy]-[Move]
  - [Surface]-[Fit Surface to Polygon Mesh]
  - [Surface]-[Edit Control Point]
  - [Demo]-[Create Surface]-[Create Surface (Polygon Mesh 0%)]
  - [Demo]-[Create Surface]-[Create Surface (Control Point Appointment)]
  - [Demo]-[Create Surface]-[Create Multiple Surfaces (Sort by Area)]
  - [Demo]-[Fit Multiple Surfaces to Polygon Mesh]
  - [Demo]-[G2]-[Create G2 Surface]
- "Coefficient of Smoothing" : 1
  - [Surface]-[Auto Create Surface]
    - ✧ "Setting(2)" Dialog
  - [Surface]-[Create Multiple Surfaces]
  - [Surface]-[Create Fillet Surface]
  - [Surface]-[Create Fillet Surface with Radius]
    - ✧ "Create Fillet Surface with Radius" Dialog
  - [Demo]-[Obsolete Menus]-[Create Fillet Surface 2016]
- "Smart Filter" : off
  - [Curve]-[Edit Curve]
  - [Curve]-[Remove Curve]

- [Surface]-[Create Fillet Surface]
- [Surface]-[Create Fillet Surface with Radius]
- [Surface]-[Edging]
- "Select Continuous Curves Automatically" : off
  - [Curve]-[Create 2D Curves]
  - [Surface]-[Create Fillet Surface]
  - [Surface]-[Create Fillet Surface with Radius]
  - [Surface]-[Edging]
  - [Surface]-[Create Surface of Revolution]
- "Constraints"- "Validation"- "Minimum Area" : 10
  - [Surface]-[Create Multiple Base Surfaces]
  - [Demo]-[Obsolete Menus]-[Create Multiple Primitive Surfaces]
- "Selection Target"- "Polygon"- "Selection Type" : Trimmed Surface
  - [Surface]-[Create Primitive Surface]
- "Offset" : on
  - [Surface]-[Optimize Surface]

## Developer

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