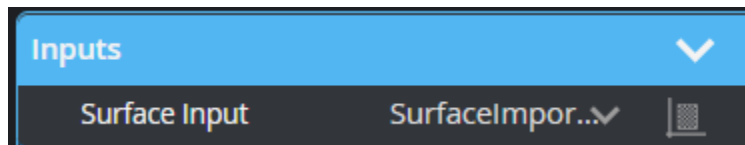


Mesh Radial Scanning

Purpose

The mesh radial scanning tool meticulously processes the scan data it captures, transforming it into a high-fidelity three-dimensional mesh that represents the object's real-world 3D geometry, thus achieving the reconstruction of the object's authentic three-dimensional form.

Inputs



Name	Description
Surface Input	The surface data that the tool will apply measurement to.

Parameters

▼ Parameters

Enable Processing

☐

▼ Configuration File

Operation

Normal

▼

Alignment Status

Not Aligned

▼ Sensors

Sensor Count

1

▼

Sensor Parameters

Sensor 1

▼

▼ Sensor 1

Sensor Model

G 2430

▼

Color

Red

▼

Scan Rate

1000.000

Hz

Origin X

5.000

mm

Origin Y

0.000

mm

Origin Z

0.000

mm

Rotation X

0.000

deg

Rotation Y

90.000

deg

Rotation Z

0.000

deg

▼ Axes Configuration

Axis Parameters

Axis RZ

▼

▼ Axis RZ

Axis Used

▼

▼ Axes Configuration

Axis Parameters

Axis RZ

▼ Axis RZ

Axis Used

☒

Start Position

0.000

End Position

360.000

Zero Position

0.000

Step

0.200

Tilted Angle

0.000

Direction Angle

0.000

▼ Frame Configuration

Frame Count

1 Frame

Frame Parameter

1

▼ Frame 1

Axis X Start

0.000

mm

Axis X End

0.000

mm

Axis Y Start

0.000

mm

Axis Y End

0.000

mm

Axis R Start

0.000

deg

Axis R End

360.000

deg

Output Surface

Mesh

Store Bcd File

☐

External id

MeshRadialScanning-0

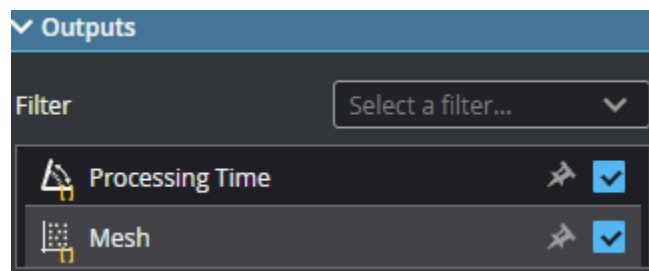
Name	Description
Enable Processing	<p>Start the scanning procedure.</p> <p>Make sure to properly configure the tool before enabling this option.</p>
Operation	<p>Actions that apply to the tool's XML initialization files. One of the following:</p> <ul style="list-style-type: none"> • Normal: The tool automatically chooses this operation after you have chosen another operation. • Load: Displays a list of initialization files you can load. After you select a file, the tool loads it and displays a message in the log. The settings in the file, such as the number of sensors and their X and Y origin, are updated in the tool's parameters. • Save: Saves the tool's settings to an XML initialization file (in C:\GoTools\SurfaceAlign\). Provide the name of the initialization file in the File Name parameter (without an extension) and press Enter or Tab. Saving the initialization file saves you time if you need to adjust the positions of the sensors in the system and perform the alignment again as a rough starting point for the alignment procedure. • Delete: Deletes the initialization file you select. • Refresh: Refresh the initialization file list
Sensor Count	Indicates the number of sensors in the system.
Sensors	<p>A drop-down that displays the settings of the selected sensor.</p> <p>For descriptions of the individual sensor parameters used for the alignment, see Sensor Parameters.</p>
Axes Configuration	An expandable section that contains axis related parameters.
Frame Configuration	An expandable section that contains Frame related parameters.
Output Surface	<p>Output surface mode</p> <ul style="list-style-type: none"> • Heightmap • Point Cloud • Mesh

Store Bcd File	When this option is enabled, the tool save data in bcd file. (in C:\GoTools\measurements\)
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Sensor Parameters

Name	Description
Sensor Model	Sets the sensor's model
Origin X {n} Origin Y {n} Origin Z {n}	The X, Y, and Z transformations calculated for sensor {n}.
Rotation X {n} Rotation Y {n} Rotation Z {n}	The X, Y, and Z rotations for sensor {n}.

Outputs



Type	Name	Description
Measurement	Processing Time	Scanning time
Dats	Heightmap Point Cloud Mesh	Output surface

Application Examples

Refer to [VE-6365: Mesh Radial Scanning Add-On tool for GoPxl](#) as the first request to migrate the tool.

Dataset: [Test Data](#)

