Artec 3D

CERTIFIED Solution Partner

SOLIDWORKS

AN INTRO TO ARTEC

STUDIO 15

INDUSTRY ACCLAIMED SOFTWARE
for professional 3D scanning
and data processing

Easy 3D scanning, high precision results

AUTOPILOT MODE

HIGH ACCURACY

SCAN-TO-CAD

www.artec3d.com

MAKING ACCURATE 3D MODELS
HAS NEVER BEEN SO STRAIGHTFORWARD

Autopilot

An advanced smart mode which guides users through data processing in a few easy steps, automatically selecting the most effective settings for your data and producing a high precision 3D model.

Scan-to-CAD

Accelerate your engineering by fitting primitives to your 3D model and precisely positioning it. Export STEP files direct to SOLIDWORKS, or complex meshes to Design X or Geomagic for SOLIDWORKS.

Time-saving quality control

Fast measurements and mesh-to-CAD analysis right in Artec Studio. Fully compatible with Geomagic Control X for advanced inspection.

High precision

Whether you choose Autopilot or manual mode, Artec Studio never compromises on precision.

3D Radar for easy scanning

Color guided data visualization makes 3D scanning easy. Green tells you that you are holding the scanner at the optimal distance from the object, red means you are too close, and blue, too far away. Simple!

HD Mode

Artec Studio's AI neural network delivers astonishing, high-resolution scans via HD Mode for users scanning with Eva or Leo.

Scan even black and shiny objects

Artec Studio features the most advanced algorithms for capturing hard-to-scan surfaces such as hair or shiny, black objects.

Process even huge datasets

Artec Studio is so powerful that you can work with datasets of up to 500 million polygons. Perfect for scanning large objects and for making 3D models in maximum resolution.

The colors you seek

Use Artec Studio's host of advanced automatic tools, including enhanced color reproduction and auto-glare removal to create vivid color 3D models ready for CGI or 3D printing.

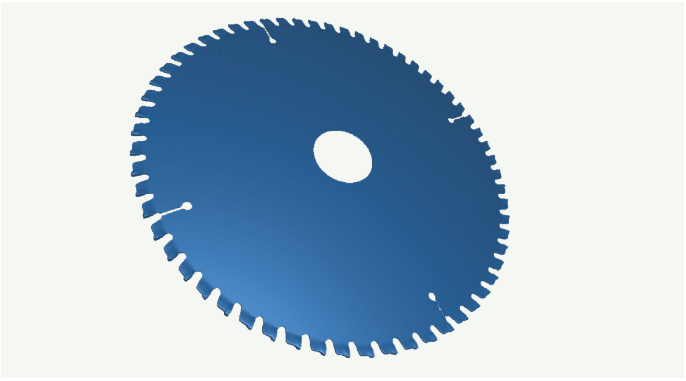
No need for markers

Artec 3D's best in class color and geometry tracking means you don't need to stick targets on your object. Just point and shoot!

EXPORT YOUR MODEL TO A WIDE RANGE OF POPULAR SOFTWARE

SOLIDWORKS Geomagic AUTODESK. blender

HOW TO MAKE A 3D MODEL
THE WORKFLOW EXPLAINED

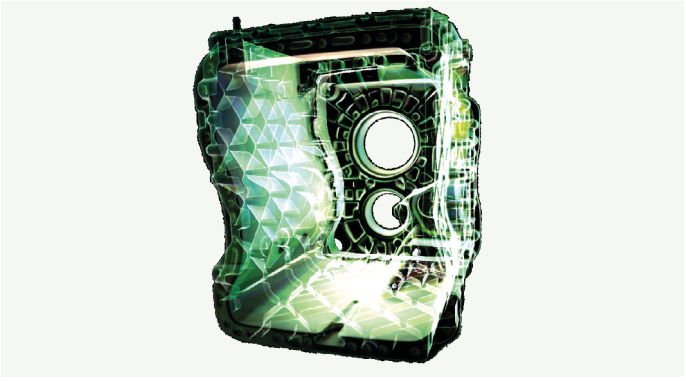


Workflow 1

Autopilot

For highly accurate results in a few easy, automated steps.

Scan your object and then enter Autopilot to process all your data automatically. Perfect for beginners to achieve professional, high precision results. A great time saver for advanced users.



Workflow 2

Manual mode

For highly accurate results, with full control and flexibility during the process.

Scan your object and choose the data processing settings yourself. Advanced users have a full range of powerful tools to manipulate their 3D data exactly as they like.

Workflow 3

Build your 3D model as you scan

For instant results, without any processing.

Using Real-Time Fusion scanning mode, move the scanner around the object and see your model being built as you go. Perfect for scanning simple objects, such as limbs or a torso, or for getting a quick preview.

Autopilot: very user-friendly and easy!

Teddy Larsson,
AK Innovative CAD&CAM Solutions

The Autopilot tool is amazing. I actually got better data on a difficult part processing through the auto-tool than through manual processing!

Kevin Shain,
Laser Design, 3D scanning systems and 3D measurement services

Many of my clients need things within a very tight time-frame. I have found real-time fusion to be a godsend when I need to make sure everything is covered before the subject needs to be returned.

Cameron Berry,
3D scanning specialist, Ink Digital

ESSENTIAL SCAN-TO-CAD FEATURES

INSPECT YOUR 3D MODEL

Load SOLIDWORKS models and other CAD files for direct comparison with your mesh

For a faster, more streamlined workflow, import STEP, IGES or X_T CAD files and align your scan to a CAD model without having to leave Artec Studio.

Fast surface distance map

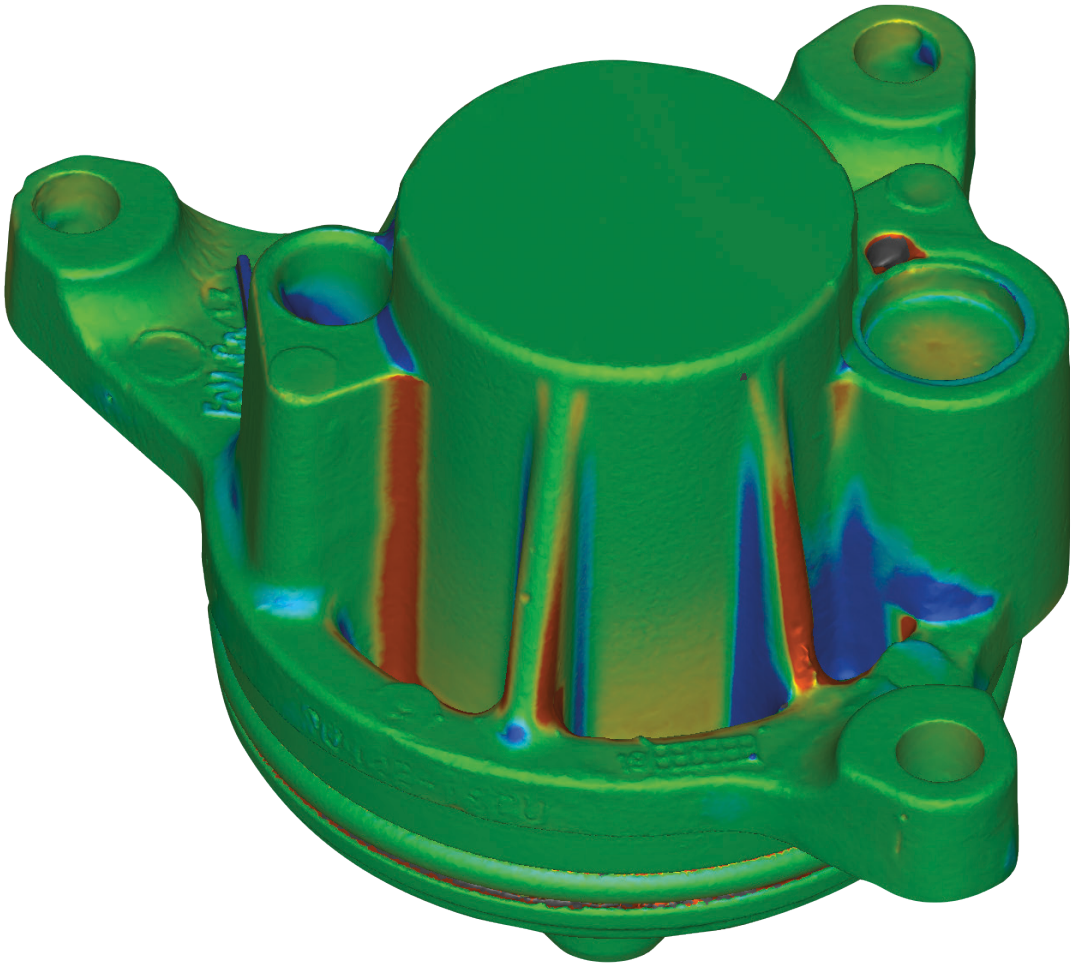
Carry out quick surface distance map comparisons and accurate measurements of any 3D model you create. Add annotations, take a screenshot of your results or export to CSV.

Primitives for accurate measurements

Fit spheres, cones, planes, and cylinders to your mesh and use these mathematical shapes for taking highly accurate measurements. For example, measure the deviation from a plane or fitted cylinder.

Advanced quality control

While essential tasks can be taken care of within Artec Studio, more complex inspection processes and tools required are within easy reach too. You'll just need to export your data to any full package inspection software, such as Geomagic Control X.



REVERSE ENGINEER YOUR 3D MODEL

Correctly position your model and use primitives to extract key geometrical data

Speed up your workflow by performing basic reverse engineering operations right in Artec Studio. Scan a simple part and use primitives to save key geometrical data in CAD format for immediate use in SOLIDWORKS or other CAD software.

Primitives for reverse engineering

Whether you're designing customized packaging, re-engineering wheel wells to fit high-performance wheels, or devising a new circuit board, CAD primitives can kick-start your workflow. Now, you can do this within Artec Studio, saving you lots of time and effort.

Precise positioning for CAD

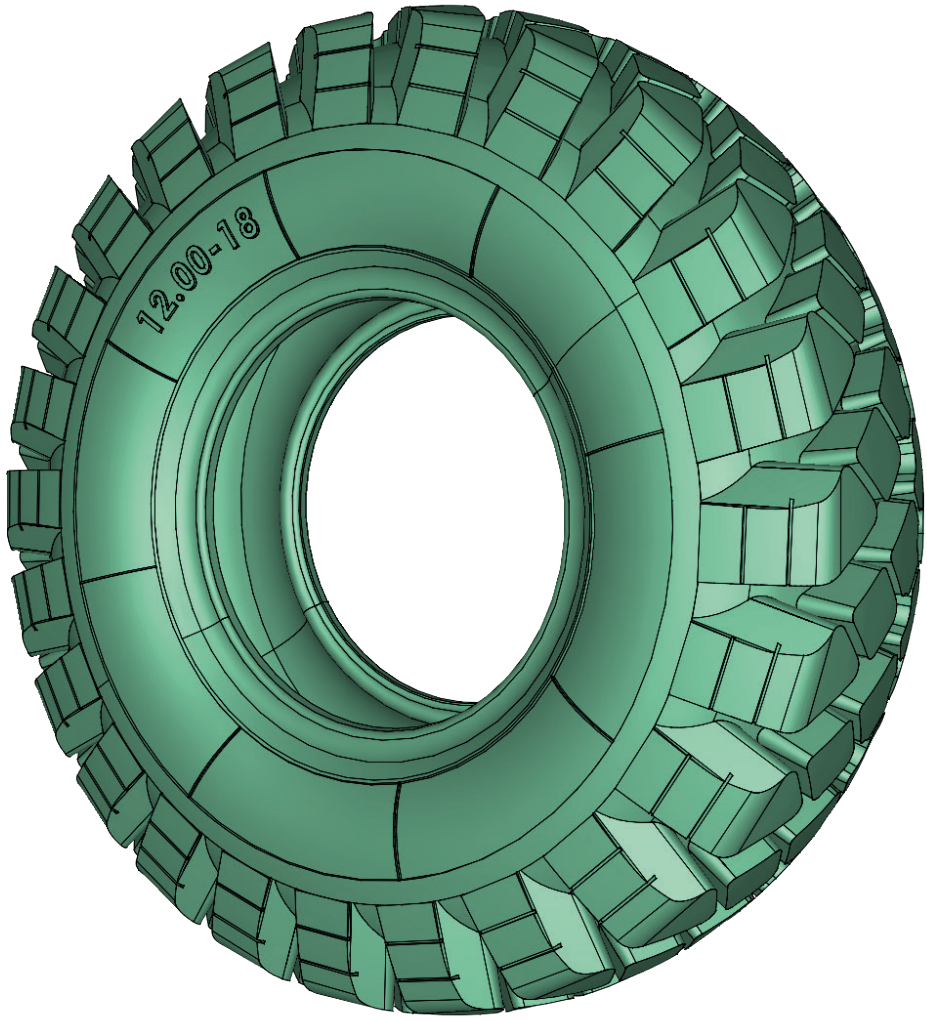
Streamline your workflow by positioning your 3D model according to the world coordinate system right in Artec Studio. Export the primitives fitted to your correctly positioned mesh as STEP, IGES, or X_T CAD formats and your data is ready for engineering in SOLIDWORKS or other CAD software.

Full featured reverse engineering

With AS15, you're already sorted for reverse engineering simpler parts. For more complex objects, with just one click you can send the mesh directly into Geomagic for SOLIDWORKS or Design X for advanced reverse engineering.

Sections

Use primitives to create multiple precise sections and export to CAD. Fast and easy.



PROCESSING 3D DATA

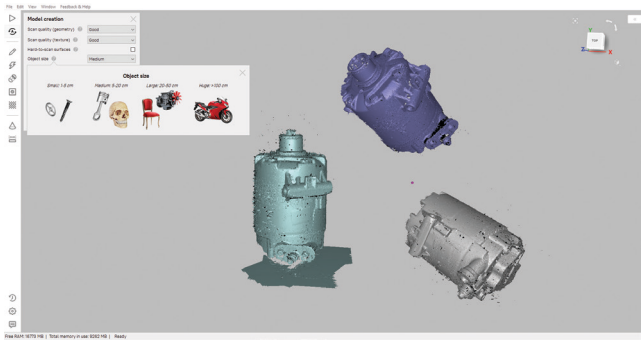
AUTOPILOT MODE
FAST, AUTOMATED DATA PROCESSING

Whether you are new to 3D scanning and require step-by-step guidance in 3D data processing, or are an experienced user looking to speed up your workflow, Artec Studio's breakthrough automated processing features set a new horizon in 3D scanning.

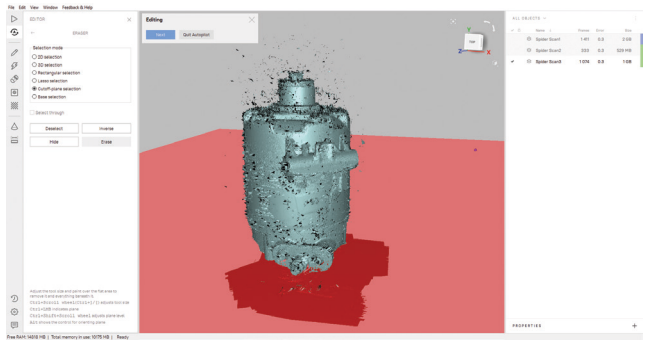
- / Automatically applies the optimal data processing algorithms for your object in order to achieve the best possible result
- / Full processing timeline, totally automatic
- / Perfect for beginners, a great time saver for advanced users

USING THE AS AUTOPILOT,
RUN THROUGH 4 EASY STEPS TO AN ACCURATE, WATERTIGHT 3D MODEL

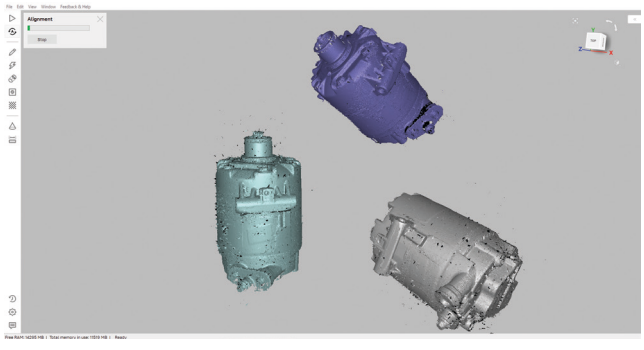
Step 1 Answer a few simple questions about your object and the type of 3D model you need



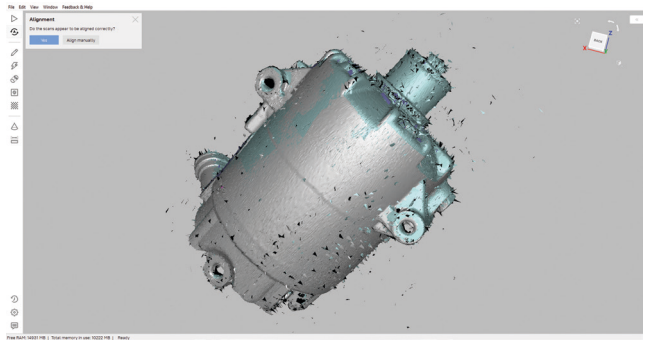
Step 2 Delete any unwanted scanned data



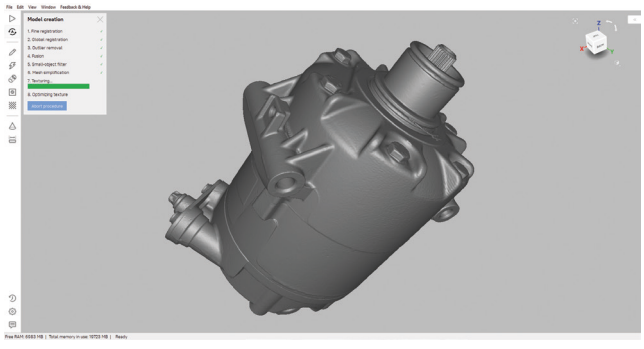
Step 3a Auto-align your data in one click



Step 3b Confirm that all scans are correctly aligned



Step 4 Autopilot applies the best processing algorithms to your data



Result A high precision 3D model

MANUAL MODE

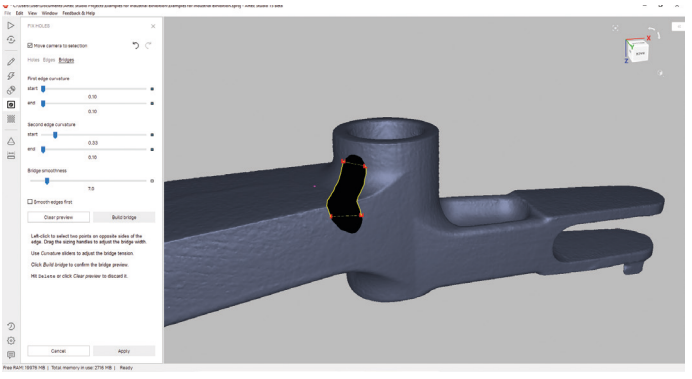
CONTROLLED MANUAL PROCESSING
AT BREATHTAKING SPEED

Artec Studio 15 also features a full range of tools for you to process your 3D model manually, giving you full control over your data.

Included are many features which streamline your workflow, making it even faster to achieve the results you need.

Smart Base Removal

Automatically delete the base your object was scanned on. Detects even curved surfaces. No need to manually erase that table, stand, or floor!

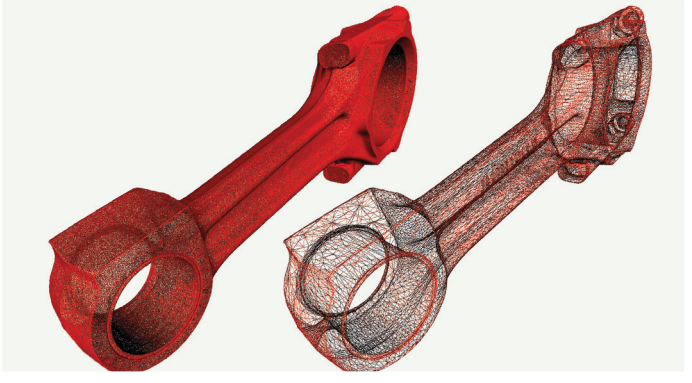


Organically seal up any holes with Bridges

Artec Studio's Bridges feature uses your scan's existing geometry to repair holes by creating custom surfaces.

Fast, accurate scan alignment

Auto-align for quick, easy processing. Now 95% of objects can be auto-aligned with total accuracy at the click of a button.



Apply texture at lightning speed

Accurately map brilliant color to your object in no time.

Simplify your mesh in a flash

Optimize the size of your 3D model file by reducing the number of polygons from millions to thousands while maintaining the high quality of the mesh.

Smart geometry editing

Touch up your 3D model in a few quick clicks with Artec Studio's intuitive geometry editing tools.

Rapid, automatized and precise texture editing

Use Artec Studio's advanced algorithms to automatically map texture where data is missing.

For use with the following Artec 3D scanners:
Artec Micro, Leo, Ray, Space Spider, Eva, Eva Lite, plus discontinued models (Spider, MH and MHT series AG, AC, W2 and T2)*

ARTEC STUDIO 15

Get every new version of Artec Studio with a subscription license

Artec Studio is available to purchase as a yearly subscription, ensuring you are always up-to-date with the very latest version. Alternatively, you can buy a lifetime license of one single version of the software.

*For full information on compatibility with discontinued scanners, please contact support@artec3d.com

COMPARE ARTEC STUDIO

	AS15	AS14	AS13
ESSENTIAL INSPECTION			
Mesh-to-CAD comparison: import STEP, IGES or X_T files	+		
Surface distance maps: Deviation from CAD primitives	+		
Surface distance maps: speed	*Lightning fast*	*Standard*	*Standard*
Surface distance maps: annotations	*Improved*	+	+
Surface distance maps: export	*CSV*		
Measurements: distance between key points of primitives	+		
Measurements: linear, geodesic, sections, distance maps, volume, annotations. Export to CSV, DXF, XML	*Improved*	+	+
Measurements: Export cross section area, perimeter length and mesh volume	*Improved*	+	+
SCAN-TO-CAD FOR REVERSE ENGINEERING			
Fit CAD primitives to 3D model	+		
Precise Positioning	+		
Sections	*15X faster*	+	+
Export fitted primitives as STEP, IGES, or X_T CAD files	+		
Export multiple open and closed contours directly to CAD	*Polyline*	*Polyline*	*Single line*
Direct export to Design X	+	+	+
Direct export to SOLIDWORKS	*SOLIDWORKS 2014 — 2020*	*SOLIDWORKS 2014 — 2019*	*SOLIDWORKS 2014 — 2018*
ALL NEW USER EXPERIENCE. **FROM RAW DATA TO FINISHED 3D MODEL IN MINIMUM STEPS**			
Process grouped 3D data as one unit	+		
Auto-group for Eva, Space Spider and Leo data capture	+		
Create custom groups	+		
Align grouped data	+		
Precisely position grouped data	+		
ADVANCED EDITING & 3D MODELING TOOLS			
Enhanced color reproduction	+		
Auto Glare Removal	+	+	
Bridges	+	+	
Flexible plane selection	+	+	+
Model to model texture transfer	+		
Auto texture correction	+	+	+
Texture Healing Brush	+	+	+
Lasso	*Improved*	+	+
Enhanced Defeature tool and Eraser	+	+	+
Hole filling	*Superior*	+	+

	AS15	AS14	AS13
HONED ACCURACY			
Auto temperature stabilizer for Eva	+		
Next generation registration for Eva and Space Spider	+		
Boosted Autopilot for Leo	+		
SMART AUTOMATION			
Smart Scanning for Micro	*Fully automatic. Required: NVIDIA GPU, 3GB VRAM, CUDA compute capability 3.5 or higher*	*Manual and pre-defined trajectories only*	
Auto-align	*30% more effective and up to 2X the speed*	+	+
Autopilot: automatic data processing pipeline	*Boosted*	+	+
Scan Size Optimizer	+		
Smart Base Removal	+	+	+
EASY 3D SCANNING			
Auto-brightness	*Dynamic*	*Dynamic*	+
Automated sensitivity for scanning black, shiny and fine objects	+	+	+
3D Radar mode	+	+	+
Texture and geometry tracking	+	+	+
FAST, POWERFUL 3D DATA PROCESSING			
HD Mode for Eva and Leo	+		
Project loading	*Streamlined for speed*	+	+
Artec Ray scan import	*2—4x faster*	+	
Max Error mode	*Auto-tailored to object size*	+	+
Support of large datasets	*Up to 500 million polygons*	*Up to 500 million polygons*	*Up to 500 million polygons*
Fine Registration	*Streamlined & optional*	*Streamlined & optional*	*Mandatory*
Texture Mapping	*8X faster than AS13*	*8X faster than AS13*	+
Fast Mesh Simplification	+	+	+
X-Ray mode	+	+	+
ERGONOMICS			
Redesigned workspace for ease-of-use	+		
Customizable workspace	+		
Swipe selection	+		
Easy mass rename	+		
Auto-export naming	+	+	
Customizable scan summary	+		
Filters	+		
Scan info	*In depth & advanced*	*Basic*	*Basic*
Model color picker	*Improved*	+	+
Sound notification	+	+	
One-click Auto-Positioning	+	+	*Basic*
3D rotation cube	+	+	+
3Dconnexion 3D mouse compatibility	+	+	+
Scanner type detection	*Streamlined*	*Streamlined*	*Manual*

COMPARE ARTEC STUDIO

	AS15	AS14	AS13
EXPORT FORMATS			
Mesh	*OBJ, PLY, WRL, STL, AOP, ASC, Disney PTEX, E57, XYZRGB*		
Point cloud	*PTX, BTX, XYZ*	*PTX, BTX, XYZ*	*PTX, BTX, XYZ*
Measurements	*CSV, DXF, XML*	*CSV, DXF, XML*	*CSV, DXF, XML*
CAD	*STEP, IGES, X_T*		
HARDWARE SUPPORT			
3rd party sensor support	*N/A*	*N/A*	*Ultimate Edition: Microsoft Kinect, ASUS XTion, PrimeSense, Intel RealSense F200, R200 & SR300, XYZprinting 3D scanner*
Scanning on MacOS	*Artec ScanApp[beta] or Boot Camp*	*Artec ScanApp[beta] or Boot Camp*	*Artec ScanApp[beta] or Boot Camp*

LOCALIZATION FOR
13 LANGUAGES

Chinese Traditional, Chinese Simplified, Czech, English, French, German, Italian, Japanese, Korean, Polish, Russian, Spanish and Turkish

WHAT ELSE DO I NEED TO KNOW
ABOUT ARTEC STUDIO?

FULL-FEATURED GUI

ARTEC STUDIO COMES WITH A FULL-FEATURED INTERFACE THAT ALLOWS YOU TO MANIPULATE YOUR 3D MODELS. INCLUDES:

- Projects and built-in Undo/Redo
- 3D editing tools (Eraser, Smoothing Brush, transformation tools)
- Advanced 3D processing algorithms, including: Auto-align, Hole Filling, Mesh Smoothing, Filters, Edge Smoothing, and much more