# **SYNOPSYS**°

# Feature Comparison of Simpleware Software Products Version U-2022.12

## Image Processing Software Options

Feature	Simpleware ScanIP	Simpleware ScanIP Medical
Import Image Data (incl. CT, MRI, JPEG)	$\checkmark$	$\checkmark$
Store, Manage, and Anonymize DICOM tags	$\checkmark$	✓
Register Multiple Datasets	$\checkmark$	$\checkmark$
Image Processing Tools (Crop, Resample, Align)	$\checkmark$	$\checkmark$
Volume Rendering	$\checkmark$	$\checkmark$
Segmentation	$\checkmark$	$\checkmark$
3D Printing Toolkit (Model Preparation, Printer-Friendly Exports)	$\checkmark$	$\checkmark$
Image Space Filters for Artefact Removal and Correction	$\checkmark$	$\checkmark$
Robust Booleans Between Parts	$\checkmark$	$\checkmark$
Measurement and Statistics Tools	$\checkmark$	$\checkmark$
Shape Fitting and Stats	$\checkmark$	$\checkmark$
Wall Thickness Analysis	$\checkmark$	$\checkmark$
Pores, Particles and Fibre Analysis	$\checkmark$	$\checkmark$
Generate and Probe Centerline Networks	$\checkmark$	$\checkmark$
Generate High-Quality Surface Meshes	$\checkmark$	$\checkmark$
Export Single or Multi-Part STL Files	$\checkmark$	$\checkmark$
Export Range of Surface Formats	$\checkmark$	$\checkmark$
CE Marked and FDA (510k) Cleared		$\checkmark$
Enhanced PACS (Two-Way) Communication		$\checkmark$
DICOM Encapsulated STL/OBJ Format		$\checkmark$
4D Image Support (Import, Visualize, Cine Modes)		$\checkmark$
Import and Register 2D X-Ray Images		✓
Generate Virtual X-Rays		✓
Export Encrypted 3D PDF Files		✓
Scripting API (C#, Python)*	$\checkmark$	$\checkmark$

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### Add-On Modules

	Automated Segmentation			CAD Integration		Model Generation		Physics Simulation		
Feature	AS Cardio	AS Ortho/ CMF	Custom Modeler	CAD	Design Link	FE	NURBS	SOLID	FLOW	LAPLACE
Fully Automated Segmentation of Hearts (3D and 4D)	✓									
Automatic Placement of Anatomical Landmarks for Hearts (3D and 4D)	$\checkmark$									
Heart Valve Analysis (Location and Dimensions)	$\checkmark$									
Fully Automated Segmentation of Ankles, Heads, Hips, Knees & Shoulders		~								
Automatic Placement of Anatomical Landmarks for Ankles, Heads, Hips, Knees and Shoulders		~								
Automatic Region of Interest Detection for Auto Segmentation	$\checkmark$	$\checkmark$								
Fully Customized Automated Image Processing Solution			✓							
Import Surface Objects (STL, STEP, IGES)				$\checkmark$						
Check and Fix Surface Objects				$\checkmark$						
Create Primitive Shapes				$\checkmark$						
Register Datasets (Automatic, Landmark)				$\checkmark$		$\checkmark$				
Position Surface Objects				$\checkmark$	$\checkmark$					
Surface Filters (Smooth, Decimate)				$\checkmark$						
Surface Editing (Extrude, Clip, Hollow, Sweep)				$\checkmark$						
Convert Surfaces to Masks, Masks to Surfaces				$\checkmark$						
Robust Booleans Between Surface Parts				$\checkmark$						
Surface Deviation				$\checkmark$						
Feature Edge Preservation				✓						
Internal Structures Wizard				$\checkmark$						
Mesh Decimation and Refinement Options				$\checkmark$		✓		$\checkmark$	✓	$\checkmark$
Export STL Files				$\checkmark$		$\checkmark$				

#### Add-On Modules Cont.

	Automated Segmentation			CAD Integration		Model Generation		Physics Simulation		
Feature	AS Cardio	AS Ortho/ CMF	Custom Modeler	CAD	Design Link	FE	NURBS	SOLID	FLOW	LAPLACE
Import SOLIDWORKS® Parts or Assemblies					$\checkmark$					
Dynamic Link with SOLIDWORKS® (Pull, Position, Orientation)					~					
Generate High-Quality Volume Meshes (Hex/ Tet or All Tet)						~		$\checkmark$	$\checkmark$	~
Automated Greyscale- Based Material Property Assignment						$\checkmark$		$\checkmark$		
Generate FE Meshes (Shells, Contacts, Node Sets, Boundary Layers)						~				
Generate CFD Meshes (Boundary Conditions and Boundary Layers)						$\checkmark$				
Import Existing Volume Meshes						$\checkmark$				
Position and Scale Volume Meshes						$\checkmark$				
Export FE Meshes (Ansys Abaqus, COMSOL)						~				
Export CFD Meshes (Fluent, COMSOL)						$\checkmark$				
Choice of NURBS Algorithms							$\checkmark$			
Export NURBS Surfaces (STEP & IGES)							$\checkmark$			
Calculate Effective Elastic Properties								$\checkmark$		
Calculate Absolute Permeability									$\checkmark$	
Calculate Effective Thermal and Electric Properties										$\checkmark$
Visualize Physics Simulation Results								$\checkmark$	$\checkmark$	$\checkmark$
Compatible with ScanIP Scripting*	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

#### Any Questions?

For more details on any of these options, please contact us at simpleware@synopsys.com.

\* Please note that some tools may not currently be compatible with scripting. Please contact us for further details.

