

Feature Comparison of Simpleware Software Products

Version T-2022.03

Image Processing Software Options

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

Add-On Modules

| Feature | Automated Segmentation | | | CAD Integration | | Model Generation | | Physics Simulation | | |
|---|------------------------|----------|----------------|-----------------|-------------|------------------|-------|--------------------|------|---------|
| | AS Cardio | AS Ortho | 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) | ✓ | | | | | | | | | |
| Aortic Valve Analysis (Location and Dimensions) | ✓ | | | | | | | | | |
| Fully Automated Segmentation of Ankles, Hips, Knees & Shoulders | | ✓ | | | | | | | | |
| Automatic Placement of Anatomical Landmarks for Ankles, Hips, Knees and Shoulders | | ✓ | | | | | | | | |
| Automatic Region of Interest Detection for Auto Segmentation | ✓ | ✓ | | | | | | | | |
| Fully Customized Automated Image Processing Solution | | | ✓ | | | | | | | |
| Import Surface Objects (STL, STEP, IGES...) | | | | ✓ | | | | | | |
| Check and Fix Surface Objects | | | | ✓ | | | | | | |
| Create Primitive Shapes | | | | ✓ | | | | | | |
| Register Datasets (Automatic, Landmark...) | | | | ✓ | | ✓ | | | | |
| Position Surface Objects | | | | ✓ | ✓ | | | | | |
| Surface Filters (Smooth, Decimate...) | | | | ✓ | | | | | | |
| Surface Editing (Extrude, Clip, Hollow, Sweep...) | | | | ✓ | | | | | | |
| Convert Surfaces to Masks, Masks to Surfaces | | | | ✓ | | | | | | |
| Robust Booleans Between Surface Parts | | | | ✓ | | | | | | |
| Surface Deviation | | | | ✓ | | | | | | |
| Feature Edge Preservation | | | | ✓ | | | | | | |
| Internal Structures Wizard | | | | ✓ | | | | | | |
| Mesh Decimation and Refinement Options | | | | ✓ | | ✓ | | ✓ | ✓ | ✓ |
| Export STL Files | | | | ✓ | | ✓ | | | | |

Add-On Modules Cont.

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

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.