

SIMPLEWARE MODEL GENERATION SOFTWARE FOR 3D PRINTING



Simpleware software *ScanIP* offers solutions for converting scanned image data (MRI, CT, micro-CT...) into robust STL files suitable for 3D printing. The advanced image processing tools available with *ScanIP* enable surface meshes to be created with guaranteed watertight triangulations and conforming interfaces for multi-material printing. Internal structures can also be added to models to reduce the weight of 3D printed objects. Application areas include the printing of patient-specific medical models, animal anatomies and industrial components.



From Image to STL File in Minutes

Simpleware *ScanIP* offers an intuitive interface for processing 3D image datasets from a comprehensive range of scan modalities. Find tools quickly and efficiently using a ribbon design, and make use of a comprehensive set of easy-to-follow tutorials when learning the software. Full technical assistance on image processing, meshing and preparing files for 3D printing is also available from our team of support engineers.

Automate your Workflow

It is possible to customise Simpleware *ScanIP* to meet your specific STL generation requirements. A scripting API allows access to all options within the software and provides support for a range of languages, including Python, C# and Java. This functionality enables you to automate repeatable operations, build wizards and integrate your own plugins. Script creation is also possible through macro recording.



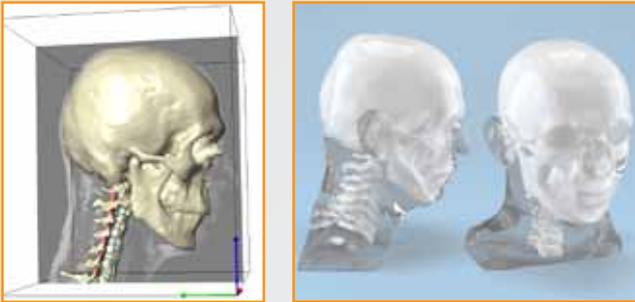
Key Features and Benefits

- » **Intuitive user interface:** easy-to-learn and easy-to-use
- » **Multi-material printing capability:** conforming interfaces for multi-parts printing
- » **Import 3D image data of any scale:** MRI, CT, micro-CT, nano-CT...
- » **Tools for generating microstructures:** reduce model weight and material costs
- » **Advanced 3D image processing tools:** reconstruct and optimise image data
- » **Fast, easy and automated STL generation:** export robust STL files in different formats
- » **Watertight surface reconstruction:** guaranteed watertight triangulations
- » **Customisable and extensible:** comprehensive scripting and macro facility

COMPLETE IMAGE PROCESSING SOLUTIONS

Simpleware *ScanIP* provides a straightforward route from scan data to robust computational models suitable for areas such as CAD, Finite Element Analysis (FEA), Computational Fluid Dynamics (CFD) and 3D printing. With *ScanIP*, it is possible to generate models for a range of applications in a fraction of the time taken with other approaches.

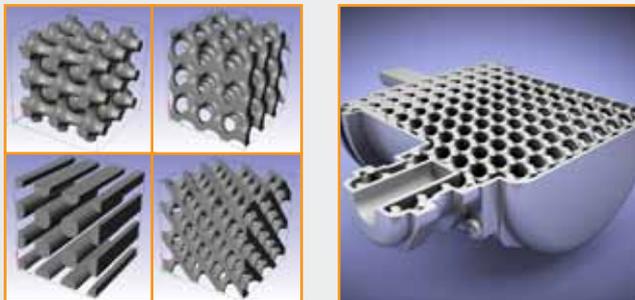
- » Visualise data with 3D rendering directly after import
- » Process data using advanced tools and filters
- » Utilise proprietary meshing algorithms to export image data as robust models
- » Ensure model quality with a range of inspection tools



ADD MICROSTRUCTURES TO MODELS

It is also possible to use Simpleware *ScanIP* to add microstructures to models before printing. The software can be used to easily add internal structures to both scan data and CAD objects. By adding microstructures to models, you can reduce their weight and cut down on 3D printing costs.

- » Incorporate microstructures into scanned image data and CAD objects
- » Reduce material weight and printing costs
- » Suitable for printing medical scaffolds and industrial parts



About Simpleware

Simpleware develops industry-leading image processing software solutions for 3D image data visualisation, analysis and model generation.

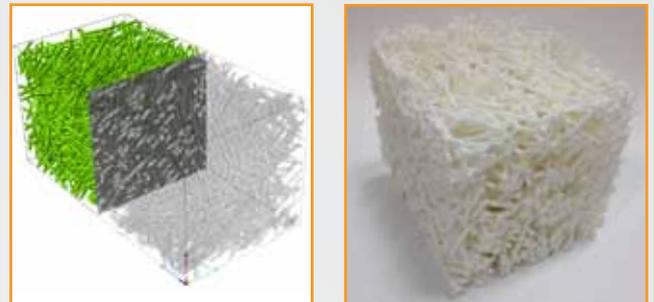
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EXCEPTIONAL MODEL QUALITY FOR 3D PRINTING

Simpleware *ScanIP* can reconstruct and process even the most complex datasets in minutes. Semi-automated segmentation tools can be used to extract Regions of Interest (ROI's) from scanned data, while advanced tools can crop and remove unwanted artefacts from images before printing. Robust STL files can then be generated with conforming interfaces and watertight triangulations, ensuring quality for 3D printing.

- » Guaranteed watertight triangulations and correct normals
- » Conforming interfaces for multi-material printing
- » Volume and topology preserving smoothing
- » Triangle decimation tools available for improving STL quality
- » No need for further processing before printing



SIMPLEWARE SERVICES

Simpleware can provide a complete workflow for scanning, converting and processing your image data for 3D printing. Data can be securely sent by FTP for processing and conversion to a high quality STL file ready for 3D printing. Alternatively, if you do not currently have your own image data, we can arrange the scanning of a part at a partner company.

- » Secure FTP transfer and complete support on your model requirements
- » Select from Binary or ASCII STL file exports
- » File compatibility with all leading 3D printing systems
- » Object scanning options available

Visit our website for a fully functional 30-day free trial. Trial versions are fully supported by our technical team.

simpleware

www.simpleware.com