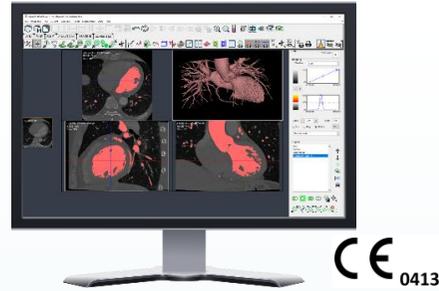


# Segment 3DPrint

Medical software solution for  
generation of anatomical  
3D models



**Segment 3DPrint** is an intuitive and powerful software for generation of high-quality models for 3D printing and virtual 3D modelling. The software is developed together with surgeons and medical 3D printing expertise from one of the leading University hospitals in Sweden.

Segment 3DPrint provides you with versatile 3D segmentation tools applicable for all anatomical structures in images from a broad range of imaging modalities. Medical 3D printing has a wide medical application such as pre-surgical planning, visualize complex anatomy, effective patient communication, implant design generation, design of patient-specific surgical instruments, and generation of 3D models for surgical training.

## What does Segment 3DPrint do for you?

- Reduces cost and operation time by using patient-specific 3D models, implants and moulds in surgical planning and surgery
- Saves time by efficient workflow to generate complex 3D models in few minutes
- Puts your clinic in the front line of innovation by provide patient-specific care
- Reducing the number of needed software solutions by providing one solution for all medical 3D modelling needs and generation of ready-to-print 3D models
- We support you in every step and value listening to our users to provide you direct assistance and reply to your questions with proposed solutions

## Features for versatile 3D modelling

In Segment 3DPrint you find a variety of automatic and semi-automatic segmentation tools fully covering your 3D modelling needs like:

**Flexible segmentation tools:** With the unique probability map you can perform segmentation on any anatomical structure with great result. You also find automatic segmentation tools of the heart ventricles and skull reconstruction module for cranioplasty. Dedicated tools to cut vessels and anisotropy smoothing to preserve small vessels. Advanced segmentation methods based on probability increases segmentation precision.

**Interactive workflow:** The tools in Segment 3DPrint will provide you with full control over your 3D segmentation. Interactive 3D display that allows to edit in 3D. Efficient object filling, smoothing and hollowing functions with interactive preview. Tools to split and merge objects in an efficient manner. Interactive bone segmentation for poorly calcified bones.

**Ready for 3D printing:** With the integrated easy-to-use tools for adding support structure, object labelling and the interactive preview for generation of high-quality STL-files you have full control of the end result. You can also import STL file for further processing.

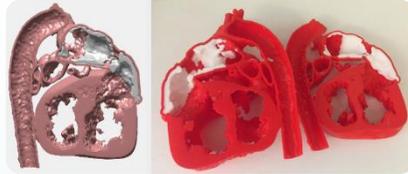
**Clinical solution:** Segment 3DPrint bears the CE-mark of conformity. The software enables fully integration with the hospital PACS system and includes imbedded patient database for the optimal clinical workflow.



## Case reports

### Cardiac

**Case:** Congenital heart defect patient that had undergone multiple surgeries. Planning of a procedure to replace a leaking valve close to a heavily calcified graft.



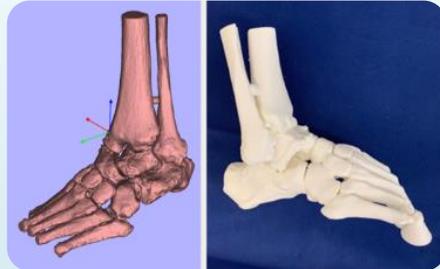
**Benefit:** The 3D model helped the surgeon to decide strategy for the procedure. Previously planned approach was deemed too risky after reviewing the model.

**Segment 3DPrint:** Model was generated using automatic segmentation and interactive cut-planes. Color model with tissue in red and calcification in white.

### Skeletal

**Case:** Girl with previous serious feet injury.

**Benefit:** Several copies of the anatomical model was prepared for the surgeon to test cutting strategies. Testing showed that if one of potential approaches had been chosen, the patient would not have been able to walk again. Surgery resulted in a dramatic increase in patient's mobility.



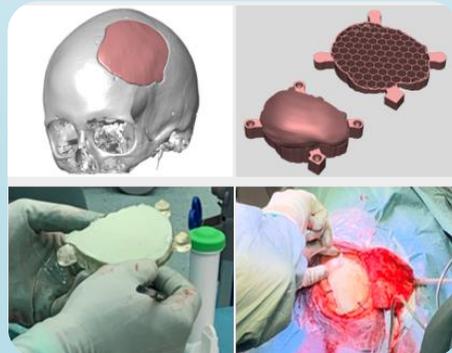
**Segment 3DPrint:** Efficient segmentation tools and tools to create support structures enable to easily produce high quality anatomical models.

### Cranioplasty

**Case:** Patient with skull defect from previous skull surgery.

**Benefit:** The 3D printed mould avoided hardening bone segment directly in the wound on the sensitive brain and saved 20 minutes in surgery time.

**Segment 3DPrint:** Mould was generated using the automatic skull and implant reconstruction module.



**We empower healthcare and researchers to make a difference.**

Together we share knowledge and innovate tools that bring the latest research to clinical practice. We take your needs seriously and support you in every step.

Medviso is a Swedish medical technology company that make medical software; assist you with software development, regulatory affairs, anatomical modeling, and software free for research.

Our mission is to take the latest research to clinic

**Welcome to be part of the community!**