

Customer Spotlight

IDASS software powered by Open Inventor
Digital autopsy software to conduct virtual post-mortems

iGene® has developed iDASS™ software that employs images from medical imaging modalities, mostly CT scanner, to produce a 3D digital body for forensic autopsy.

To achieve the digital output, the 3D digital body needs to be rendered, colored and manipulated. All these functionalities mainly depend on the Open Inventor rendering engine.

iDASS is the first application in the forensic domain that enables pathologists to investigate the body without physically manipulating it. There are different tools available in this application to help pathologists perform a successful autopsy like Auto Metal Tracking (AMT) which helps users scan the 3D body and locate any metal particles inside. Other tools help examine internal bleeding (e.g. due to stab wound), and extract body organs like the heart, kidneys, eyeballs, lungs, etc., for detailed examination.

The users of this application are forensic pathologists, professionals and medical students particularly for investigating the body during the autopsy and education in anatomy laboratory.

iDASS in action: <http://youtu.be/VyyPyHq5414>

About Open Inventor®

Open Inventor provides the power and functionality of OpenGL® at an object-oriented level. Its extensible architecture, its large set of advanced components, including seamless integration between visualization and GPU computation, provide developers with a high-level platform for rapid development of the most demanding 3D graphics applications.

About iGene®

iGene Sdn. Bhd. specializes in the development of Advance Medical Visualization Technology. The company is based in Kuala Lumpur, Malaysia. iGene Sdn. Bhd. operates as a subsidiary of INFOVALLEY Group of Companies. models of material structures.



<http://www.infovalley.net.my/>
<http://digitalautopsy.co.uk/>



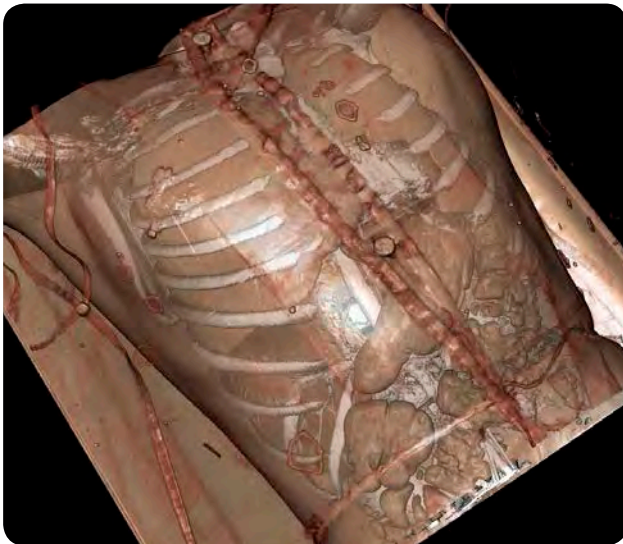
↑ **Dr. Pramod Bagali conducts a 3D digital autopsy** derived from 64-slice CT. Thickness of slices ranges from 0.625 mm to 0.9 mm.

Digital autopsy software to conduct digital post-mortems

By Dr. Farzad Jahedi (Head of Medical Informatics), Dr. Pramod Bagali (Forensic Pathologist), Komeil Hadidi (Senior Software developer), iGene Sdn. Bhd. (Malaysia)

Capabilities. The core strength of our software is its ability to provide a proper environment for forensic pathologists to conduct an autopsy. For example, the ease of selecting multiple views such as multi-planar reconstruction (MPR), 3D and 2D views of the digital body. Digital image processing like auto-metal tracking is provided in our software. In addition, iDASS can be easily integrated to our forensic information system, INFOPSY™. Another point is its important role in multimedia reporting where snapshots and videos from iDASS can become part of the final autopsy report to be presented in court.

Use of Open Inventor. Open Inventor and its VolumeViz extension have been used for the past 6 years to power iDASS' successive versions and iDASSmart (an extended version of iDASS).



↑ 3D volume rendering of internal organs of a cadaver inside a body bag.

The advantages of using Open Inventor are its performance and wide range of capabilities as compared to other SDKs (software development kits) which are not as sophisticated.

Currently, Open Inventor achieves the best performance when rendering 3D images.

The technical support provided by FEI Visualization Sciences Group is good and the level of responsiveness to our inquiries is quick, which is very important to us.

We are looking forward to using in even greater depth Open Inventor's vast range of capabilities through dedicated training to our development team. Our aim is to continue using Open Inventor to add analytical functionalities to iDASS and more digital image processing features.



↑ iDASSmart LCD Screen allows forensic pathologists to examine digital representations of real bodies in minute by manipulating digital bodies using touch and finger gestures similar to procedures in the classical autopsy.

iDASS in action.

Watch a demo of iDASS software for forensic pathologists:

<http://youtu.be/VyyPyHq5414>

Images: iGene Sdn. Bhd.

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