

MedCom to present the new 'vintage' of its recent technical developments

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MedCom's OncentraGYN literally revolutionized the gynaecological brachytherapy market. The software was presented with and in the Nucletron booth at ESTRO and ASTRO. DICOM-RT, also developed by MedCom, is de-facto the only easy-to-use system offered in the market and integrating DICOM-3, DICOM-RT and miniPACS functionalities at a unexpected reasonable price. And last, the FDA clearance of VeriSuite 1.6 opens a new global chapter in the distribution of this unique product.

Based on the well established platform OncentraProstate of Nucletron, MedCom expanded its application field and entered the gynaecological area with the new release of the product OncentraGYN. Together with its partners Nucletron B.V. and Pi Medical MedCom ported the advantages of the real-time planning for HDR prostate treatment to be applied for cervix cancer brachytherapy.

OncentraGYN is a fully 3D planning system supporting the GEC ESTRO recommendations. The system includes a library of gynaecological applicators which consists of not only the source path, but also the real surface allowing a highly precise and fast reconstruction of the placed applicator. Fast and intuitive optimization algorithms together with real-time evaluation methods allow very accurate planning and verification.

Using user definable preferences, OncentraGYN can be easily adapted to the clinical protocols to fit in the clinical routine. Furthermore, easy adaptation of previous planning stages and the direct connection to the afterloader control unit minimize the treatment time.

OncentraGYN provides full DICOM compatibility using Nucletron Smoothbase as integrated database and StoreSCU/StoreSCP.

MedCom also has released a new software tool for the purpose of reviewing radiotherapy related data based on its long-term experiences with the virtual simulation package "ProSoma": the RT-Viewer.

This software package "RT-Viewer", an integrated DICOM-3 and DICOM-RT review station, is an easy-to-use, user-friendly application at a very reasonable price. The system can be operated stand-alone or in a network for reviewing virtually all types of DICOM RT data - in particular: RT-STRUCT, RT-PLAN, RT-DOSE and RT-IMAGE - and DICOM-e including the underlying 3D images, usually taken from CT scans or any other 3D-modality.

The viewer is capable to display these data in a 2D or 3D environment, for example by generating new DRR based on the RT-PLAN data, 3D display of the contouring data taken from RT-STRUCT, display of those data as an overlay on the CT scans or generating beam configuration overviews like an observer's eye view showing the entry and exit light field of the loaded beam fields. By loading RT-DOSE data, the viewer also has the ability to display iso-contour lines or may even generate new DVH curves.

The viewer is also equipped with a comfortable 2D DICOM-3 viewer tool to review essentially all DICOM data including - but not restricted to - RT-IMAGE and other RT related 2D DICOM data. The integrated database is used to import images either directly from external media or by connecting via network to a DICOM PACS to query and retrieve the patient's images.

As an option the RT-Viewer's database can be expanded to a mini-PACS client/server installation, allowing sharing some or all of the DICOM data between multiple RT-Viewer workstations.

In addition MedCom's VeriSuite 1.6 is now ready for marketing in the United States. MedCom's high precision patient position verification system has received marketing clearance by the United States Food & Drug Administration (FDA). It is now available for the United States particle therapy centres.

The next generation of the VeriSuite software is already under development. This new version will provide a better integration with a treatment control system of a particle therapy centre and more flexible usage of X-ray hardware. Up to three radiographic axes with three tubes and one to three digital image receptors controlled by one to three X-ray generators can be individually configured in order to provide the best solutions for a specific treatment room.

The first installation was already made in the Inclined Beam treatment room in ProCure's Treatment and Development Center in Bloomington, Indiana/USA. The new proton therapy centre of the University of Pennsylvania in Philadelphia and Procure's treatment centre in Oklahoma City will follow in November and December 2008. Almost a dozen of additional new installations are already scheduled for 2009.

MedCom has been founded in 1997 as a spin-off of the Fraunhofer Institute of Computer Graphics (IGD), the world expert R&D Institution for Computer Graphics Technologies. Together with its co-operating institutions this builds the INI-Graphics Network, the largest R&D group in the world devoted entirely to Computer Graphics. Due to the links to the Fraunhofer IGD, MedCom capitalizes from the technology developed by one of the most advanced R&D groups in the world. MedCom has licensed the exclusive rights for commercial purposes in the area of 3D ultrasound and related fields.

MedCom offers advanced 2D, 3D, 4D/5D tools, for professional diagnostics and treatment. Its customers are clinics as well as the research sector benefiting from the company's advanced ultrasound, radiological and telemedicine applications. MedCom manufactures and markets leading edge technology for clinical imaging with emphasis on telemedicine, radiology, cardiology, cancer treatment and ultrasound. More information is available at the [MedCom \(www.medcom-online.de\)](http://www.medcom-online.de) web site and in the *VMW* June 2007 article *MedCom to release innovate software and tools for cancer treatment* (<http://www.hoise.com/vmw/07/articles/vmw/LV-VM-06-07-9.html>).

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