



## Giessen Clinic for Facial, Orthognathic and Oral Surgery employs Cumulus database solution for research and education

Medical clinics produce hundreds of images daily that are usually stored on several different computers or servers or even externally. Ideally, any physician should be able to have access to medical images from any point in the clinic at all times, regardless of where these images are stored, enabling them to collect relevant data for research and education to create a PowerPoint presentation, for example.

Similarly, these images should be accessible via a keyword search in a general catalog as well as via personalized search criteria for each health care professional. Sounds like a dream of the future? It isn't. In cooperation with the Health Care Centre for Oral, Orthognathic and Facial Surgery of the University Hospital of Giessen (Germany), Canto developed a network compatible Digital Asset Management solution that allows images of patients to be entered into the clinic's information system and simultaneously links them to a database for research and training.

### Daily work at the University Hospital Giessen, Department for Oral, Orthognathic and Facial Surgery

Professor Dr. Hans-Peter Howaldt, Director of the Clinic for Oral, Orthognathic and Facial Surgery views the daily images of patients on his computer. "I can now easily enter the images into the clinic's information system by drag&drop and assign them to a specific patient. Colleagues from any of the clinics that need information about that specific patient can access this centrally stored information from any workstation."

At the same time, Professor Howaldt decides which of the images he enters into his team's archive for scientific lectures. After marking the images, the clinic's information system anonymizes the selected images and automatically transfers them to the Cumulus database. Additionally he allocates them to a system of categories that was set up according to individually significant keywords. "I now no longer search for photos using a patient's name, but use my own keywords, such as disease patterns or therapies," Howaldt emphasizes the advantages of an individualized database for research and training, secured by password access. "My colleagues and I can then place these pictures in a PowerPoint presentation, for example."

### Digital Asset Management for the medical professions

This initial application developed in Giessen may soon be used in other institutes as well. The implications and possibilities are enormous. The benefits for hospitals and private practices are evident. Physicians can simply search for patients' data or images from any computer on the clinic's premises, for instance in search of a specific disease pattern for a lecture and choose precisely the one they need. They can either place the images they found directly in a PowerPoint presentation or simply make them available on the clinic's Intranet. That way, other members of their team or students can access the data, too.

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What's more, several physicians can simultaneously search the Cumulus database for medical images, independent of the place where the patients' images are stored.

### Business profits for the clinic

Back to the Giessen clinic for oral, orthognathic and facial surgery. The clinic produces around 100 images per day. Thus, the number of images newly added to the information system, organized and searched for easily reaches 22.000 per year.

Additionally, 15,000 older images have to be taken into account, pictures that were only accessible from one computer locally and weren't connected to the clinic's information system nor had searchable keywords assigned to them. The time saved for the employees at the Giessen clinic by working with Cumulus is enormous. The employees at the clinic's data processing unit integrated the database solution into the clinic's workflow with the help of Canto. This new application harmonizes and optimizes workflow and routines throughout the clinic. The success is visible: no longer does anyone need to walk to the local computer in the health care centre and tedious searches for specific images are history.

The health care system will see growing pressure to optimally care for patients while remaining cost-effective. Cumulus can help to achieve this goal. By deploying the Cumulus database, the Giessen clinic is a precursor. Carsten Schwabe, Clinical and Administrative Data Processing: "Easy to integrate, fast and conveniently applicable- we know that the future of cost-efficiency in clinics lies in the intelligent use and extension of practical solutions at the front-end."

### Facts:

#### Organisation/ Company:

Klinik und Poliklinik für Mund-, Kiefer- und Gesichtschirurgie, Klinikum der Justus-Liebig-Universität Giessen (Clinic and Policlinic for Oral, Orthognathic and Facial Surgery, Clinic of the Justus-Liebig-University, Giessen, Germany)

#### Implementation/ Solutions:

Integration of a DAM solution into the clinic's Patient Information System, connection of a database for research and training.

#### Business requirements:

Accessibility of patients' images throughout the clinic and provision of images for research and training.



### Software:

Cumulus Publishing Server Solution  
(incl. Web Publisher Pro)  
10 Cumulus Clients for Windows  
Cumulus Office Suite  
Cumulus Viewer

### Hardware:

HP LHR3 – 2x Pentium II (400Hz)  
256 MB Main Memory  
RAID-System with 9 Gbyte  
and 104 Gbyte  
Operating system:  
Windows 2000 Server



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