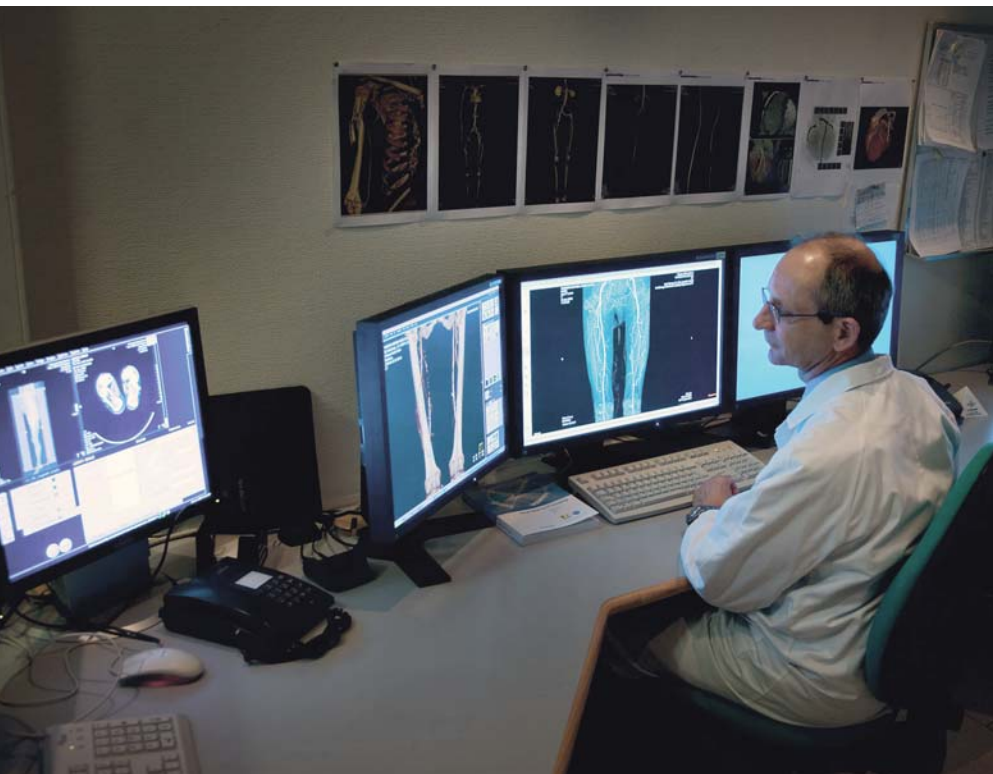


syngo WebSpace: Command Central for Fast and Efficient Image Processing

In a recent interview with SOMATOM Sessions at the Hospital Notre-Dame in Tournai, Belgium, Jacques Kirsch, MD, head of the Department of Radiology, shared his insights on the impact of *syngo* WebSpace on his facility's diagnostic capabilities and workflow processes.

By Rita Wellens, PhD



“The essential workflow advantage of *syngo* WebSpace is centralizing and making available all diagnostic solutions from any workplace.”

Jacques Kirsch, MD, Head of the Department of Radiology, Hospital Notre-Dame, Tournai, Belgium

Jacques Kirsch, MD, reading at his integrated PACS / *syngo* WebSpace workplace of the Hospital Notre-Dame.

syngo WebSpace is the latest innovation in client-server solutions for image processing. Any personal computer or laptop is turned into a diagnostic command center when linked up with *syngo* WebSpace. It allows for real-time access to image data – from anywhere*.

Radiology Department with Cutting-Edge Technology

The Hospital Notre-Dame is a general

hospital located in the city of Tournai, about 85 kilometers southwest of Brussels. The hospital provides – considering its size, with 300 acute hospital beds – a respectable spectrum of radiological services and is equipped with state-of-the-art technology. The radiology department covers the entire spectrum of conventional radiology and CT. This includes very sophisticated computed tomography such as cardiac CTA and CT

colonography. In addition, many CT interventions, especially for pain therapy, are performed in the department. The radiology department operates a SOMATOM Definition Dual Source CT scanner and a SOMATOM Definition AS scanner. The latest innovation in the department of radiology is the *syngo* WebSpace client-server solution, which the head of the department, Jacques Kirsch, MD, uses together with four staff radiologists.

Easy Access to Image Data – Everywhere

The obvious benefit that Kirsch enjoys while using *syngo* WebSpace is the fact that many time-consuming steps have been eliminated, especially for the manipulation, retrieval and distribution of thin-slice CT data. The radiologist no longer has to walk to his 3D workstation, and patient data no longer has to be physically moved to another location for accessing at a particular workstation. In addition, everyone always knows where to find the thin-slice data sets: on the *syngo* WebSpace server.

“The essential workflow advantage of *syngo* WebSpace is centralizing and making available all diagnostic solutions from any workplace,” Kirsch emphasizes. “The fact that *syngo* WebSpace allows the transfer of reconstructed thin-slice CT volume data to the central server in real time offers radiologists the unique possibility of accessing the complete patient CT imagery – thick and thin slices – from any connected workstation, and to have all of the software wizardry at hand. This immediate availability of CT images speeds up workflow and strengthens diagnostic capabilities as well as intervention planning. Multiple users can in parallel access 3D diagnostics and may even hold 3D interactive sessions through the internet.”

Of course, thin-slice data was already being used by the radiologists before *syngo* WebSpace was in place, for example, to evaluate very small lesions. However, another dedicated thin-slice server had to be used to temporarily – eight to nine months – store the large-volume thin-slice CT data.

syngo WebSpace has clearly done away with the previously existing restrictions tied into scanners and their networking. “We do not need to switch to another workstation or room – we have everything right at our fingertips. In other words, once *syngo* WebSpace was connected to the network, it started functioning as a ‘central dispatch.’ *syngo* WebSpace is totally integrated into PACS – I rate that as a feat of genius,” Kirsch says.

Interactive 3D for Referring Physicians

Kirsch explains this *syngo* WebSpace advantage while beaming up 3D images at the PACS console: “In pre-*syngo* times, the diagnostic reconstructions of thick slices would be transmitted through the central PACS and thus would be available to all clinicians.” Radiologists performed 3D reconstructions at a separate workstation. When the pathology was obvious in the 3D image, they created a screenshot and sent it back to the PACS. Other clinicians could retrieve and review only this screenshot, which of course could no longer be manipulated.

“Totally new is not having to forward clinicians those flat, static images anymore,” says Kirsch. “Thanks to *syngo* WebSpace, we can send real-time, dynamic volumes! This is truly a spectacular innovative feature. Typically – pre-*syngo* WebSpace – only radiologists worked with volumes, and clinicians worked with images. Now, clinicians have full access to the fascinating world of volumes.”

Radiologists working in 3D on *syngo* WebSpace can save a bookmark when the pathology becomes obvious on the screen. Later other clinicians just need to click the bookmark in “their” *syngo* WebSpace environment and immediately get the same image that the radiologist prepared for them. They now have an interactive 3D image. The difference is that the clinician can further manipulate the image in order to get a better understanding of the pathology.

One can think about a comminuted fracture. The orthopedic surgeon highly appreciates the ability to turn the fracture around to get an estimation of the spatial situation of the bone fragments.

on the fly Recons

So far, radiologists who were seeking additional reconstructions in coronal, sagittal or other planes to support their diagnosis, needed to call the technologist at the scanner and ask for additional reconstructions. The technologist needed to manually start the recon jobs and then send the images to the PACS – a time

consuming and cumbersome procedure. Not to mention the additional amount of data that needed to be archived in the PACS.

With *syngo* WebSpace this annoying work step can be almost entirely eliminated. The time-consuming traditional “recons on demand” can be replaced by the interactive “3D on the fly.” With a click on the *syngo* WebSpace button in the PACS environment, not only the same case and the same image series open in 3D at the very same workplace, but additionally, each data set can now be presented in an individual, pre-defined screen layout which contains the planes to display such as coronal, sagittal or any other plane, as well as the favorite hanging protocols and window settings.

Kirsch adds that being able to share these incredibly fast diagnostic capabilities with colleagues anywhere has boosted overall efficiency, patient care and staff satisfaction.

In order to size up the positive impact of *syngo* WebSpace as suggested by the many superlatives he uses to describe it, Kirsch is asked whether he could envision operations at his department now without the *syngo* WebSpace solution. He sighs heavily and answers, “It would be very, very difficult – such a huge step backward! *syngo* WebSpace has facilitated so many aspects of our work. It has seamlessly integrated with PACS and other existing IT applications, and it has given us such diagnostic flexibility. Not being able to use this resource anymore is quite unthinkable.”

Even after such a short period of time in routine use, *syngo* WebSpace’s impact is already being felt in countless positive ways at the Hospital Notre-Dame.

*internet connection required.

Rita Wellens, PhD, is a medical writer and clinical research consultant residing in Belgium.

Further Information

www.syngo-webspace.com