

The quality, efficiency and individual approach in the provision of services to departments and institutions offering medical services, along with the increasing level of patient and staff satisfaction, as well as the concept of environmental friendliness and focus on ecological clinics, have made the healthcare system in our country one of the best among developed countries.

From now on, human health is not thought of regardless of its sphere of life. The solution of economic problems arising from rapid population growth, problems with energy sources, global problems in the environment, lack of fresh water sources or the threat of their occurrence is impossible without considering ecology.

Institutions providing medical services and respect for nature in the provision of services demonstrate special attention to the quality and effectiveness of these services. The buildings of modern hospitals are painted in all shades of green, the parking spaces are located underground, every trifle is thought out with the improvement of the territory, and pools, waterfalls, children's playgrounds are built in such a way to satisfy all social needs. Preference is given to energy saving medical devices with low power consumption.

With regard to imaging devices, the emphasis is on technologies with low radiation levels and a minimum of actions with paper carriers, snapshots and archiving. Smart systems that manage hospitals to ensure the efficient use of buildings and energy systems are rapidly replacing traditional office systems.



Respect for nature and man

CE certificate

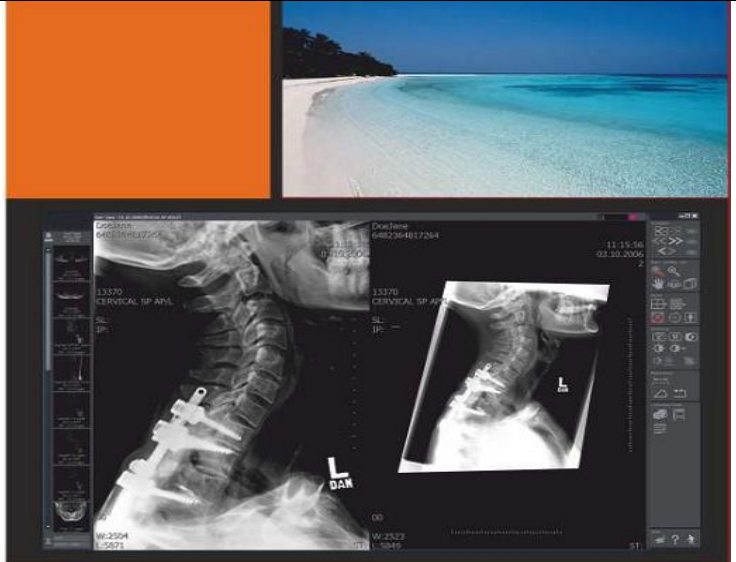
No harm to human health and the environment (CE certificate)

Preventing the negative consequences of the traditional use of snapshots (snapshot, loss of picture, deformation of the picture due to improper storage conditions, damage to printing pictures, etc.)

Prevention of environmental damage and materials caused by the traditional printing of images (photographs, chemical solutions, image trays, phosphoric cassettes, etc.)

Eliminating the reading of cassettes and the waiting time for results in the traditional procedure for printing pictures

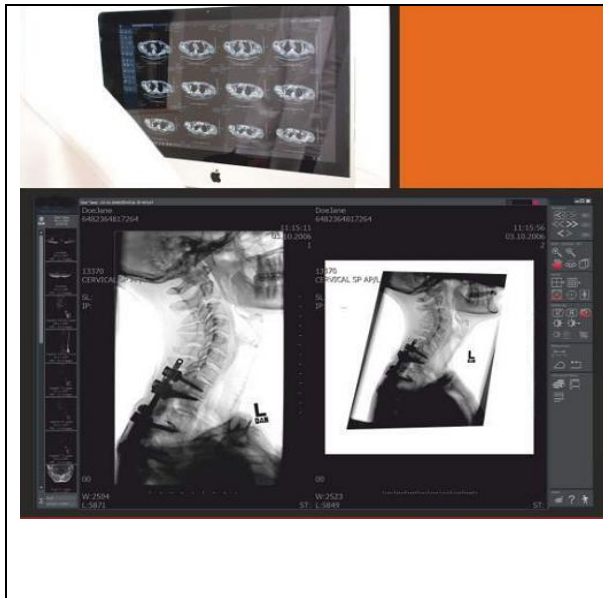
Reducing the risk of radiation contamination for personnel







Efficient productivity  
Perfect combination  
Server



Support for the functions (services) of the standard PACS system (DICOM 3.0 Query / Retrieve SCP / SCU, DICOM Store SCP / SCU, DICOM Print SCU, DICOM Storage Commitment, DICOM Worklist)

Radiological and cardiological IHE profiles, technical specifications of the Ministry of Health for PACS, Radiological Data System (RIS), a message application for PACS HL7, a combination with all instruments and software supporting Dicom 3

Support for a total of 35 different types of image compression, backup

Answers to questions, sending images via Wado server and image display software on the Internet

Access to the server management module via the Internet, adjustment. Remote testing and troubleshooting. Database independent of platform and equipment



More speed, more freedom

### Mobility

Access patients to medical images regardless of location and time through mobile devices iPhone, iPad and MCA (tablet). (Ability to request and display images, both outside the hospital and next to the patient)

Increase the productivity of staff, improve communication between employees, and increase the number of actions due to the increase in the speed of data exchange.

Thanks to quick and easy access to information, increasing the reliability of decisions made by medical personnel in a timely manner.

The decision-making process is based on effective data

Simplification and acceleration of patient care, improvement of the quality of medical services rendered to the population.

Increase the number of correct clinical decisions, reduce the proportion of medical errors.





Full-size image  
Visualizer



Improved tools for display and analysis, sequence display at the level of series and images. Access with the ability to compare images received by the patient at different times.

Image support Dicom Presentation State ve Dicom Key Images Notes, the ability to request and send images through different servers Pacs

Writing a conclusion in the Dicom Structured Report format, selecting the save and display conclusion. Support for the printer via Dicom SCU ve Windows. Simultaneous sending of different series to different Dicom printers.

Supports CD / DVD recording corresponding to the IHE Portable for imaging profile and integration with CD-Robot. Ability to view CDs that are compatible with Dicom.

Compatible with the IHE Basic Image Review profile display interface and basic icons, individual use.

Main protocol support on a modal basis.



### Simple admission through the Internet

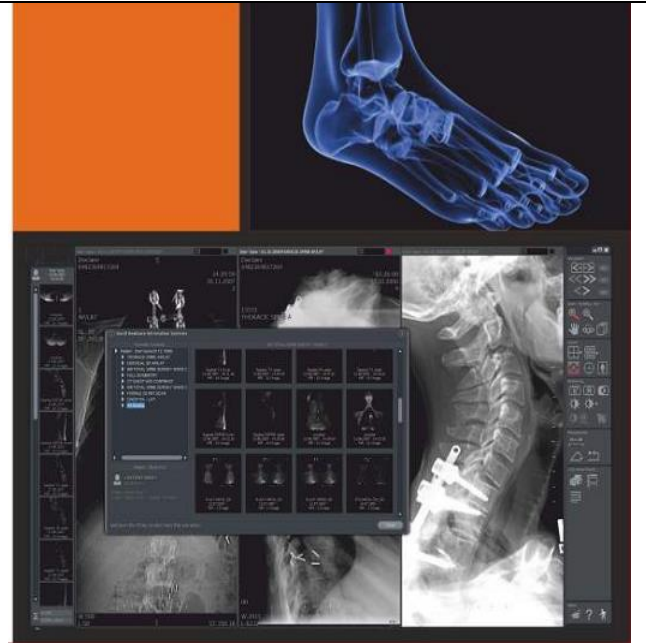
The ability to open images without Dicom (JPEG, AVI, BMP, PNG, etc.), communication with the patient, sending for the desired Pacs server.

Transfer images through different recording options (DICOMDIR, CD / DVD, PNG, JPEG), create personal albums with the support of a local database.

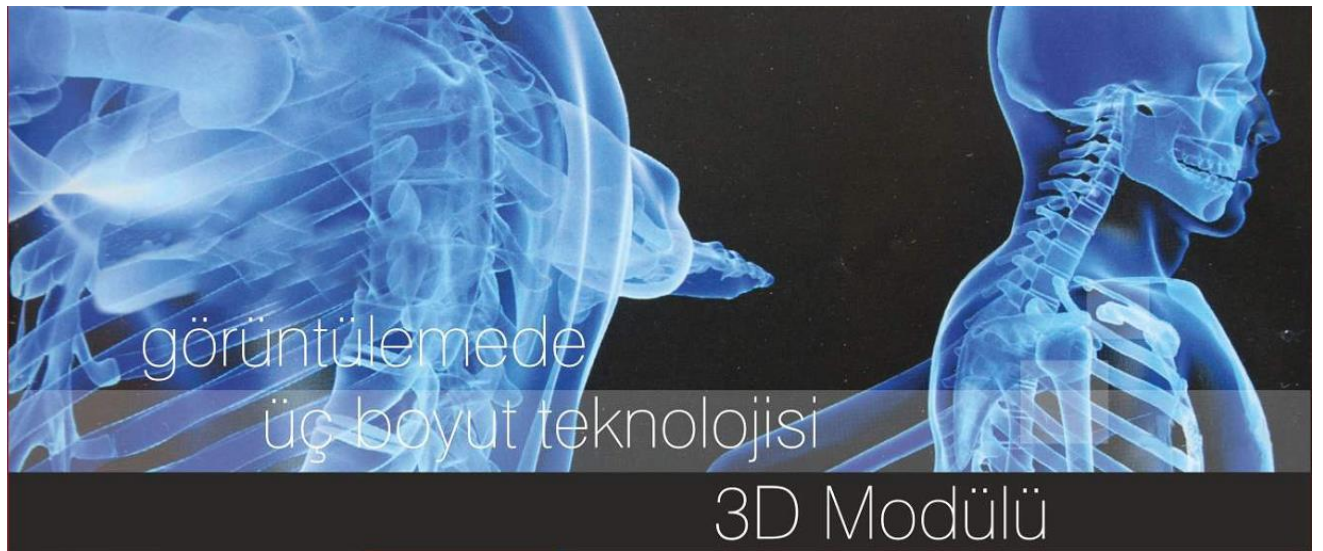
Identification of emergency patients, update of information on the work situation and monitoring. Supports multi-screen monitor and medical monitor. Ability to display the image in full size. Special sequence options for mammography images.

Support MPR, Oblique MPR and Orthogonal MPR on one screen. Creation, storage and display of new series of MPR images.

The ability to use the Internet all the features of images through browsers Safari, Windows Explorer, Firefox, Opera, etc.







### 3D image technologies 3D Module



Image tracking in sagittal, coronal and axial projections. Mark the points of the image in a three-dimensional projection.

Support for volumetric "fly through" rendering.

Automatic flight support and finding a passage when displaying an image in perspective.

Support for MIP (Maximum Intensity Projection), Minip (Minimum Intensity Projection), MPR (Multiplanar Reformatting), Curved MPR.

Support for Fading MIP, Raysum.

Support for Freehand and segmentation of points.

Ready-made cut samples and color templates for modules and organs.

Support table transfer function for the separation of organs, tissues and bones.





### New trends in the formulation of a true diagnosis

Formation of a park point and the possibility of continuing work at different times.

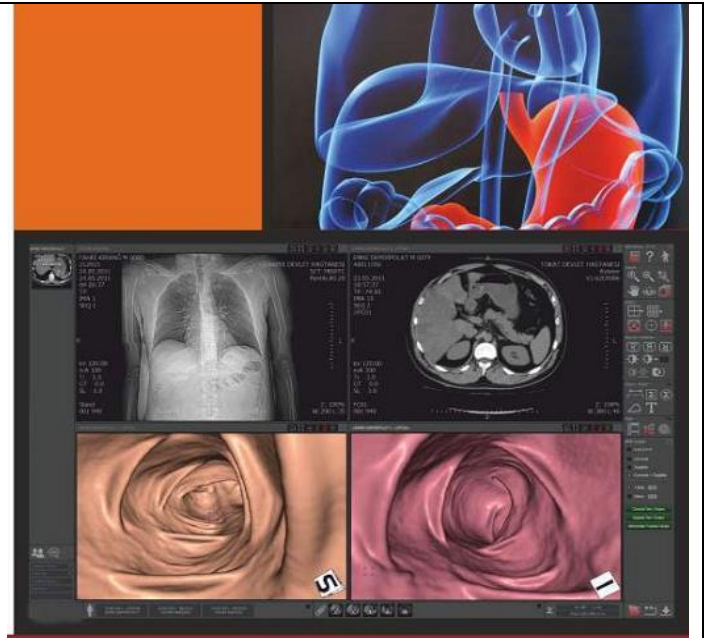
The ability to measure the length, transparency and volume of the mass from the image.

The ability to transmit in different formats of formed volumetric images, the creation of videos avi, mov filmi.

Create a 3D image with an extension of 4096 pixels in X, Y, Z coordinates.

The image quality, independent of the characteristics of the equipment (screen map, disk size, etc.).

The possibility of three-dimensional image and analysis, both in the hospital and outside it, without the need for an expensive station, only using the infrastructure of a single server.





## HL7 messaging system Integration



The HL7 message system is combined with the IHE (Scheduled Workflow) and Patient Information Reconciliation (IHE) scheduling profiles.

Exchange of information between different systems in HL7 format 2.3.

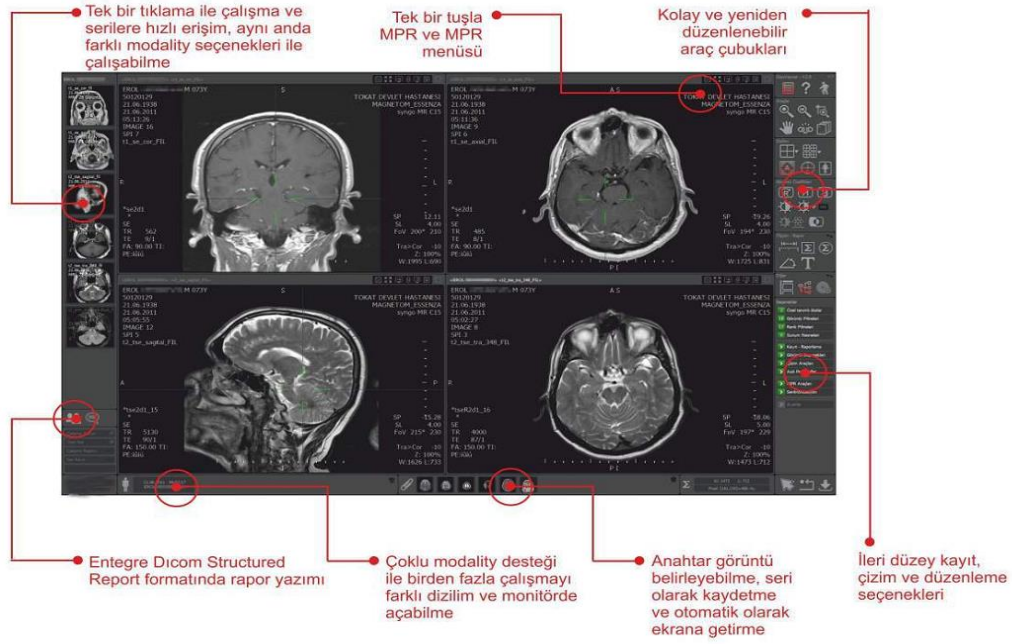
Fast data delivery through the TCP / IP socket infrastructure.

Ability to work with various systems such as Windows, Linux, Solaris, etc. and with different hardware.

Language support for Turkish and other languages and for various applications.

Support for fast and simple documentation integration.

## Basic visual characteristics



Tek bir tıklama ile çalışma ve serilere hızlı erişim, aynı anda farklı modality seçenekleri ile çalışabilme	Work in one click and quick access to the series, while the ability to work with different versions of modules
Tek bir tuşla MPR ve MPR menüsü	One-click MPR and MPR
Kolay ve yeniden düzenlenebilir araç çubukları	A simple toolbar that can be recreated
Entegre Dicom Structured Report formatında rapor yazımı	Print the conclusion in the format Entegre Dicom Structured Report
Çoklu modality desteği ile birden fazla çalışmayı farklı dizilim ve monitörde açabilme	Multimodule support, the ability to work with more than one sequence and output to the monitor
Anahtar görüntü belirleyebilme, seri olarak kaydetme ve otomatik olarak ekrana getirme	Definition of a key image, recording in the form of a series and automatic display
İleri düzey kayıt, çizim ve düzenleme seçenekleri	Variants of recording, drawing and high-level design



## Equipment recommendations

The configuration of the computer that can work with the PACS application server; can vary depending on the number of devices of the institution, the features of the device image module, the number of patients, the number of shots per day, the number of polyclinics, the display of images via the Internet.

The extra number of devices of the institution should be at a level sufficient to work in this equipment system. In institutions where a large number of X-ray machines and the number of images per day, the performance of the server computers and the computer network is important.

The volume of the disk is calculated depending on the type of instruments and the number of pictures per day and per month. X-ray images that were not compressed, can be stored among images from 3 to 50 MB. For an institution where the minimum number of photographs by one X-ray apparatus is 100 pieces:  $100 \times 3 \text{ MW} = 300 \text{ MW} \times 30 = 9 \text{ GB}$  data per month. The number of devices affects the image size, the volume of the disk and the backup units of the computer used to process the number of images.

PACS servers					
Characteristics	CPU	RAM	Disk Capacity	Reserve block	operating system
Minimal	CPU Intel Xeon 2.4 Processor	4 GB	4 TB (annual)	-	Microsoft Windows Server
Recommended	Intel Xeon 2.4	16 GB and more	16 TB (annual)	Yes	Microsoft Windows

Рабочая и отчетная станция					
Characteristics	CPU	RAM	Disk Capacity	Reserve block	Operating system
Minimal	CPU Intel Core 3,1 Processor	4 GB	Nvidia Quadro 512 MB	7200 RPM	Windows XR Vista, Windows 7
Recommended	Intel Core 3.1	4 GB и более	Nvidia Quadro FX	15000 RPM	Windows 7 (64 бит)



Fully complies with the principles of obtaining the PACS of the Ministry of Health

- Radiological profiles IHE, confirmed by the tests the structure of the server
- Web Server Management and Web Image Infrastructure
- Support for the HL7 message system and easy integration with all software
- Support images from all mobile devices (suitable for iPhone, iPad and Android)
- The server and visualization software fully comply with the technical specifications of the Ministry of Health for PACS
- Support Curved MPR, Oblique MPR, Orthogonal MPR, MIR MINIR, change of cut.
- Support for volumetric rendering of "fly through".
- Support for 3D MIP, MINI, Fading MIP RaySum.
- Preparation of conclusions, comparison of conclusions on the Internet. Support for voice recording.

