

Digital Radiography and Image Management

A guide for medical practices, clinics and hospitals



any



Digital X-ray images time, anywhere

for medical practices, hospitals
and emergency medicine



Amadeo X-ray systems

Mobile & stationary full systems as well as portable X-ray units for digital radiography without cassettes

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dicomPACS® DX-R X-ray acquisition software

Acquisition and diagnostic software for X-ray systems with user-friendly graphical interface

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dicomPACS® image management and diagnostics

Software for processing, transferring and archiving images

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ORCA® cloud solutions

Cloud-based teleradiology and storage for images and patient records

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OR Technology is your partner in digital radiography for innovative X-ray systems and customised solutions for ambulatory and inpatient care – tried and trusted worldwide



Many excellent reasons

to place your trust in OR Technology

Active since 1991

... as a manufacturer of digital X-ray equipment and developer of image management systems. Our professional solutions are used in over 140 countries for stationary and mobile radiography, medical image management (PACS) and cloud-based archiving.

Comprehensive know-how

... based on decades of experience developing software for digital image processing in combination with specialised expertise in X-ray technologies. Close working relationships with physicians and universities significantly contribute to our innovative approaches.

Made in Germany

... means excellent quality and first-rate service for hardware and software.

Exceptional image quality

... made possible by excellent image processing using our inhouse-developed acquisition and image management software and AI-based automatic measurement tools as well as the valuable experience we have gained from several thousand successful digital X-ray system installations.

User-friendly handling

... even for personnel with limited training. The multimedia X-ray positioning guide assists with patient positioning and software settings.

Best service

... for customers and distribution partners. OR Technology does not rely on external call centres. A support team with over 20 employees offers multilingual information and assistance (e.g., in Arabic, English, French and Spanish).

Low maintenance

... because there are no mechanical parts in the X-ray system that require regular upkeep (system dependent).

Ideal

... for all applications; ranging from mobile systems for first-aid services and intensive care stations to all-round X-ray equipment for hospitals, as well as compact systems for confined spaces in small medical practices. OR Technology has the widest product range on the market.

Tried and trusted

... worldwide. OR Technology's X-ray systems and software meet highest international quality standards.

Corporate sustainability

... with equal emphasis on environmental, social and economic aspects. Every day we rise to the challenge of developing our company in a sustainable manner and creating a positive working environment for our employees. We continuously strive to minimize our ecological footprint.





Amadeo X-ray systems



Stationary and mobile, all-terrain full systems as well as portable X-ray machines for digital radiography without cassettes

Our stationary and mobile Amadeo full systems are specially designed for quick and professional diagnoses, cost-effective performance, as well as reliable and exceptional image quality. The systems include all components and functions necessary for digital X-ray imaging without cassettes. Amadeo systems are available for conventional computed radiography (CR) as well as for fully integrated digital radiography with fixed and wireless flat panel detectors.

The integrated *dicomPACS®DX-R* console software offers all tools necessary for working with the X-ray system: from generator control to the display of high quality images for diagnostic evaluation. All settings are adjusted at a single control panel.

The professional image processing software produces images of outstanding quality and can be adapted to special customer needs. High-performance image processing allows organ-specific optimisation and guarantees top-quality X-ray images. Everyday veterinary care is made easier by an array of integrated functions (e.g., a multimedia X-ray positioning guide) and an intuitive design. Furthermore, the *dicomPACS®DX-R* software can readily be interfaced with existing patient management systems.

→ See detailed description of software beginning on page 35

In addition, we offer portable, lightweight monoblock X-ray machines for greater flexibility. The generator's integrated interface for connecting to digital X-ray detectors makes these portable Amadeo systems suitable for a wide range of radiographic applications.



Amadeo Z **motorised**

Looking for a compact, digital X-ray system for low ceiling heights that allows all radiological positions?

Fully motorised, digital Z-arm X-ray system

Amadeo Z motorised -
economic and space-saving system
for low ceiling heights

The digital U-arm system (for low ceiling heights from 2.40 m) ensures effortless and accurate positioning of the stand by means of five electric motors and is operated via an integrated 10" touchscreen display console. They are suited for all radiographic examinations, including full spinal and leg imaging via stitching. An optimised workflow saves time and personnel resources. The entire system is controlled via our professional acquisition and diagnostic software, *dicomPACS® DX-R*. → See detailed description

of software on pages 35-39

Special features are the wireless remote control, asynchronous shifting of bucky tray and tube, an easy straight alignment of bucky or swivel arm due to the automatic 0° positioning as well as an LED indication when the desired position is reached.

Further information
about the Amadeo Z motorised
system is available here:





 Amadeo Z *motorised*

All Amadeo Systems
now with
automatic, **AI-based
thorax screening**,
to detect different
types of lung
diseases detect
[more tools
in development]

Amadeo R *motorised*

Looking for a versatile, digital X-ray system ideal for small rooms in your busy medical practice?

Fully motorised system with table and wall stand

Amadeo R motorised - universal motorised X-ray system with floating table top for confined spaces

The versatile, motorised X-ray system which convinces through simple control and handling. An intuitive 10" touch screen display simplifies system operation. The digital X-ray system is suitable for all X-ray exposures in sitting, lying and standing positions and has approx. 60 semi-automatic preset positions of stand height, alignment and SID. X-ray staff quickly become familiar with the procedures and the use of our professional acquisition and reporting software *dicomPACS®DX-R*. → See

detailed description of software on pages 35-39

The X-ray tube and bucky tray of the grid wall stand are designed to be lowered to the floor. The X-ray tube follows automatically if there are no objects in the way. The 6-position height-adjustable X-ray table has a high load-bearing capacity so that even larger patients can be examined without any problems.

Further information about Amadeo R motorised system is available here:



Amadeo S *motorised*

Interested in equipping your medical practice with a full system, perfect for X-rays of patients in sitting, standing and lying positions?

Partly motorised U-arm X-ray system

Amadeo S motorised - reliable and compact X-ray equipment for wireless and fixed flat panel detectors

The motorised U-arm X-ray system includes all necessary components and functions for digital X-ray imaging without cassettes. Both its compact design and the minimum ceiling height of only 2.40 m make the system perfectly suited for small rooms. All important settings and operating operations are performed via an integrated 10" touchscreen console. The very flexible and partially motorised positioning of the stand allows a wide range of images to be acquired. These can be taken on sitting, standing or lying patients (table optional). Both bucky tray and tube can be rotated. All necessary device positions can be pre-defined on the 60 available program slots to ensure quick positioning on the patient. The *dicomPACS®DX-R* control panel operates the entire X-ray system.

→ See detailed description on pages 35-39



Further information about the Amadeo S motorised system is available here:





Amadeo T Systems

You need a digital X-ray system, especially for images of sitting and standing patients [thorax, lung, etc.]?

X-ray system for taking standing X-rays

Amadeo T - X-ray system for confined spaces for taking thorax and other standing X-rays

All images of sitting or standing patients can be taken effortlessly. The X-ray source and the bucky drawer of the grid wall stand can be lowered to the floor. Options such as motorised auto-tracking can optimize work.

Simple operation and handling guarantee fast training of the X-ray personnel and ensures perfect chest and other X-ray images of standing and sitting patients. The entire system is controlled by our professional acquisition and diagnostic software *dicomPACS® DX-R*

→ See detailed description of software on pages 35-39

The compact design allows installation in the tightest of spaces.

Further information about the Amadeo T system is available here:



Amadeo C Systems

Interested in equipping your medical practice with a universal full system and practical ceiling mount?

Ceiling-mounted system with Bucky table and wall stand

Amadeo C - the professional solution with height-adjustable patient table for precise imaging

The Amadeo C ceiling-mounted X-ray system with Bucky wall stand and height-adjustable Bucky table makes positioning patients effortless for even the most complicated exposures. The system can be configured to fit into almost any room.

The floating table top of the height-adjustable Bucky table with high load-bearing capacity is ideal for routine examinations. The Bucky wall stand can be set up as a free-standing unit, is equipped with electromagnetic brakes, and can be used for full spine X-rays.

The *dicomPACS®DX-R* operating console controls the entire X-ray system: from operating the X-ray generator to the finished superb quality image for diagnostic evaluation. → See detailed description of software on pages 31-35



Further information about the **Amadeo C** system is available here:





Amadeo M *mini*

Searching for a lightweight, complete digital solution for ambulatory and inpatient care?

Mobile X-ray system for hospital and outdoor use

Amadeo M mini - for use in the field as well as for bedside examinations and intensive care stations

The Amadeo M mini system includes all necessary components, including our globally proven acquisition and diagnostic software package with a convenient X-ray guide for optimal patient positioning (except for AX version).

→ See detailed description of software on pages 35-39

X-ray exposures of all sections of the human trunk are possible. The Amadeo M mini can be easily transported due to its low overall weight and compact design. Our modern digital X-ray system can be employed wherever it is not possible to quickly transfer patients to a hospital for diagnostic radiology. The system can easily be pulled over steps, swivelled in all directions, and does not tip over on uneven ground.

Further information about Amadeo M mini system is available here:



Amadeo P Systems

Searching for a portable X-ray unit ideal for work in medical practices, hospitals and ambulatory care?

Lightweight, portable X-ray generators

Amadeo P - High-frequency X-ray generators for portable X-ray imaging in emergency medicine

High-quality X-ray images are no longer a problem for portable monoblock X-ray units. Modern high-frequency technology offers high performance in miniature format using only standard power connections (220V/110V).

Low weight, user-friendly operation, and an integrated interface for connecting to digital X-ray detector systems make the Amadeo P ideal for the multifaceted demands of medical practices, hospitals and ambulatory care.

Amadeo P X-ray units are available with and without batteries. Wireless models without batteries offer unhindered mobility.



Further information about the Amadeo P units is available here:





Leonardo DR Systems





Compact suitcase and backpack solutions for mobile use in medical emergencies

The extremely lightweight Leonardo DR suitcase and backpack solutions represent a digital and space-saving complement to portable X-ray units and also an opportunity to transition from CR to direct digital radiography. All necessary components, including cables, are neatly tucked away in the suitcase or backpack. Just open the case, turn on the machine – and off you go!

This compact solution allows excellent images in DICOM format to be created, processed, analysed and archived in no time flat. The straightforward user interface enables all personnel to produce optimal X-ray images. The system functions under almost all environmental conditions and requires very little maintenance. Several different imaging surface areas are available for the Leonardo system.

The professional *dicomPACS[®]DX-R* acquisition software sports an intuitive and modern graphical user interface. All examinations can be conveniently conducted from a single monitor and all X-ray parameter settings are automatically transferred to the generator (optional). [→ See detailed](#)

[description of software beginning on page 35](#) *dicomPACS[®]DX-R* generates images of outstanding quality and can be adapted to individual customer needs. High-performance image processing allows organ-specific optimisation. The integrated X-ray positioning guide assists with patient positioning and software settings for each examination. Furthermore, the *dicomPACS[®]DX-R* software can readily be interfaced with existing patient management systems.



Leonardo DR mini III

You want long wireless X-rays and large, razor-sharp X-ray images?

The gold standard among the X-ray cases

Leonardo DR mini III – very light X-ray system with large monitor and extremely long battery life

The gold piece of our Leonardo X-ray suitcase series combines everything you want from a highly functional X-ray system. Specially designed for medical service providers, disaster relief and home care services, the Leonardo DR mini III is fantastically lightweight. You can X-ray endlessly without recharging and view the razor-sharp X-ray images on a large Full HD touchscreen monitor.

The integrated diagnostic and acquisition software guarantees excellent X-ray imaging.

→ See description of software on pages 35-39

The well-padded top shell of the case offers sufficient storage space for the protected transport of a 35 x 43 cm X-ray detector including a protection case.

What makes this X-ray case so unique?

Flexible detector sizes

Sufficient space for all 25 x 30 cm and 35 x 43 cm X-ray detectors incl. protection box

Large images

Anti-glare 21,5" (Full HD54.6 cm) touchscreen monitor

Extremely long battery live

Up to 500 shots without charging

Very low case lightweight

Despite large HD monitor only 9.5 kg (plus detector)

Razor-sharp X-ray images thanks to globally proven image processing

Further detailed information on the Leonardo DR mini III can be found here:





For all Leonardo Systems optionally available:
Automatic, AI-based thorax screening, to detect different types of lung diseases detect [more tools in development]



Remote App
Your smartphone as remote control for planning and viewing images during the X-ray process – available for all Leonardo systems



Leonardo DR pico

Are you looking for a light X-ray bag for direct digital X-ray in the outdoor area?

Fantastically light X-ray bag

Leonardo DR pico - comfortable X-ray bag, also suitable as shoulder bag or backpack

The 17" notebook and the 12" x 10" X-ray detector with protection box are very space-saving and well padded in the robust bag. With a complete weight of only approx. 7.1 kg, the Leonardo DR pico can be easily transported to any location. The handy X-ray bag is also suitable for stationary use in veterinary practices or horse clinics. You can complete the system with a battery-operated, portable X-ray generator. Simple handling is sufficient and the X-ray solution is quickly set up on site and ready for use.

The simple operation of the acquisition and diagnostic software from OR Technology pre-installed on the notebook enables even less radiologically experienced personnel to work easily and intuitively.

→ See description of software on pages 35-39

Further information about Leonardo DR pico is available here:



Leonardo DR nano

Searching for a rugged, portable digital solution to complement your existing mobile X-ray equipment?

Super lightweight backpack X-ray system

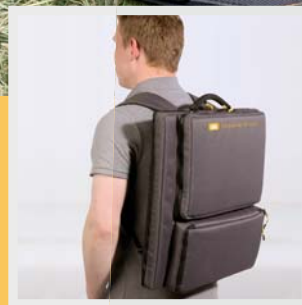
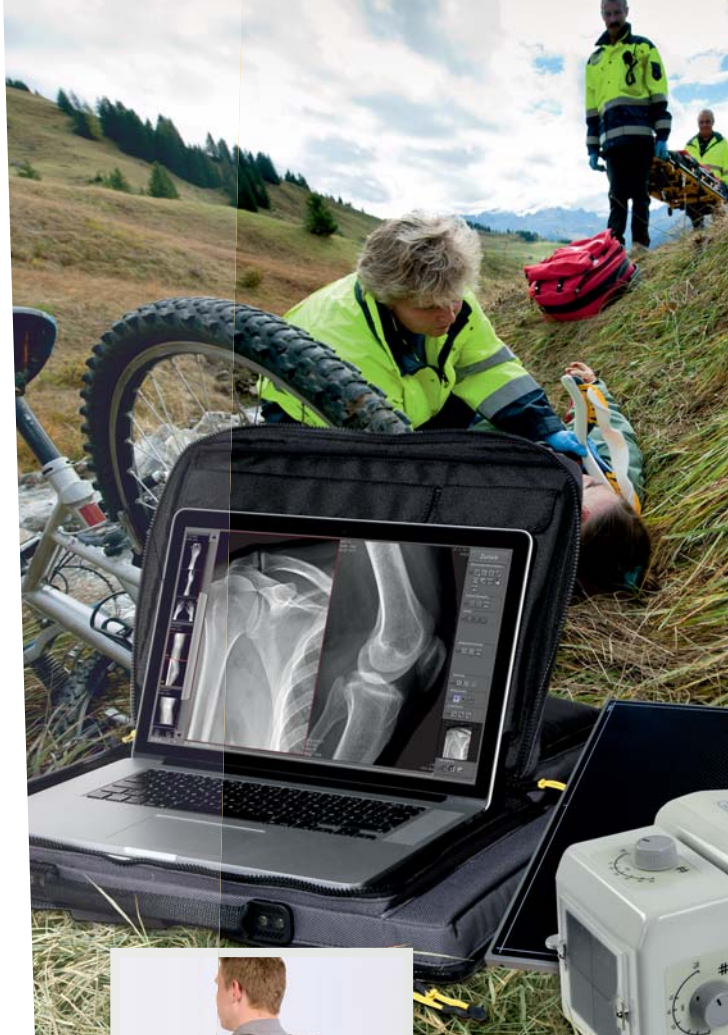
Leonardo DR nano - one of the lightest portable X-ray solutions worldwide

The Leonardo DR nano consists of only two components: a wireless X-ray detector and a laptop with integrated acquisition and diagnostic software.

→ See details on pages 35-39

Weighing just under 8 kg (including carrying case, laptop, accessories and flat panel detector), the system is one of the lightest portable X-ray solutions worldwide. It is ideal for ambulatory digital radiography, any time and anywhere. Getting tangled up in annoying cables is a thing of the past! Working in confined spaces is no longer a problem.

After use, the system is stored in a rugged, custom-made and efficiently designed backpack. The system can easily be carried to any location, even across uneven terrain in the field.



Further information about Leonardo DR nano is available here:





Medici DR Systems





Flat panel retrofit kit (DR) for transitioning stationary and mobile X-ray systems to digital

Medici DR systems make it easy to switch from conventional stationary and mobile X-ray units to digital radiography. Automatic exposure detection (AED) eliminates the need to access the X-ray unit or make manual adjustments to the system and cable connections during installation. The system is just as easy to install as computed radiography (CR) units. The DR retrofit kit significantly optimises your workflow – X-ray images appear on the screen within seconds of exposure. Cassettes are no longer required. Customise your X-ray system to meet your needs by choosing the perfect flat panel detector from a wide array of makes and sizes.

The *dicomPACS®DX-R* image acquisition software has a touchscreen interface, is easy to operate, adapts to your workflow, and reliably produces outstanding X-ray images. [→ See detailed description of software beginning on page 35](#) The software is used to control all functions of the X-ray system. The automatic, user-specific image processing makes post-processing virtually unnecessary.

All Medici systems can be integrated into your practice management software and programmed to transfer X-ray images to an image management system (PACS). Should you not have access to an image management system yet require images to be distributed (e.g., within your medical practice / hospital or to colleagues / patients via internet), our *dicomPACS®* image processing system offers file sharing.



Medici DR Systems [stationary]

Interested in transitioning your conventional, stationary X-ray system to digital with minimal effort?

Upgrading stationary X-ray systems

... with a **Medici**-System:
Trouble-free digital retrofits with tethered flat panel detectors

Digital radiography does not automatically require investing in an entirely new system. Upgrade your X-ray system to digital with a Medici retrofit – easy to install, straight-forward to operate, and no need for manual adjustments or modifications.

The system pays for itself within a short period of time and produces digital images of diagnostic quality. We offer a wide selection of flat panel detectors for customising your system.

The integrated control console operates the entire X-ray system: from generator control to high quality images for diagnostic evaluation.

→ See detailed description of software on pages 35-39

Further information about Medici updates [stationary] is available here:



Interested in upgrading your current mobile X-ray unit to digital?

DR upgrade for mobile X-ray equipment

... with a **Medici** system:
digital X-ray images of
diagnostic quality

Digital systems are the norm in hospitals and medical practices. If you are now looking to transition your mobile X-ray equipment to digital, our Medici DR upgrade kit is your best bet. Medici systems are available for nearly every mobile X-ray unit manufactured. Customise your X-ray system to meet your needs by choosing the perfect flat panel detector from a wide array of makes and sizes. The user-friendly acquisition and diagnostic software produces images of outstanding quality and can readily be integrated with your existing workflow using laptops, touchbooks, tablets or Ultrabooks.

→ See detailed description of software on pages 35-39 The Medici DR system can also be integrated with an existing patient management software and can transfer X-ray images to Picture Archiving and Communication Systems (PACS).



Further information
about Medici
updates [mobile]
is available here:





Divario CR Systems



Digital radiography with cassettes for standard X-ray examinations with maximal processing capacity

With the purchase of a cassette-based radiography system (CR), you can keep your existing X-ray system and simultaneously benefit from the excellent quality of digital X-ray images.

Computed radiography uses imaging plates in cassettes of the same size and shape as conventional film cassettes. After the normal X-ray exposure, the cassette is placed into an X-ray scanner and read out.

The resulting digital image is stored and can be viewed seconds later on the computer monitor. CR imaging plate systems permit low-cost entry into digital radiography and pay off within a short period of time. The existing X-ray system does not have to be modified.

When used in combination with the professional image acquisition software *dicomPACS®DX-R*, the compact and lightweight Divario CR system provides a complete suite of image processing tools.

→ See detailed description of software beginning on page 35

The tailor-made software substantially improves and accelerates the daily workflow. During the design phase, priority was given to exceptional image quality and maximum flexibility. As a result, the integrated intelligent image processing software can easily be individualised to meet the specific wishes and requirements of the physician for each X-ray examination. This function guarantees the best image quality for any given purpose.



Divario CR -T2

Interested in going digital without changing your existing radiography workflow?

Quick and compact CR desktop unit

Divario CR-T2 with high processing capacity for standard X-ray examinations

With up to 73 cassettes per hour, the Divario CR-T2 has an impressive processing capacity. The Divario system is easy to use and increases the efficiency of examination procedures. The desktop unit is unobtrusive, has a compact design, and is small enough to fit on any desk or shelf.

OR Technology's integrated image acquisition software includes a complete suite of image processing tools and guarantees excellent image presentation. → See detailed description of software on pages 35-39

The solution can easily be adapted to existing clinical applications, and is ideal to handle overflow and to act as a backup for DR and CR systems.

Further information about Divario CR-T2 is available here:



Divario CR -Tm

Looking for an easy way to digitise your X-ray images while continuing to work with cassettes?

CR desktop unit with extraordinary 50 μm resolution

Divario CR-Tm with high cassette throughput for high-resolution X-ray images

The Divario CR-Tm is a CR desktop system ideal for small medical practices and for use as backup in busy hospital radiology departments.

The CR system has a maximal processing capacity of 73 cassettes per hour in high-speed mode (5 pixel/mm). The unit can reliably produce high-quality, high-resolution images with 50 μm pixels. High-resolution images (up to 6 lp/mm) significantly improve the diagnosis of changes and injuries.

The compact and lightweight CR system comes with our professional acquisition and diagnostic software, and thus with a complete suite of image processing tools. → See detailed description of software on pages 35-39



Detailed information about Divario CR-Tm is available here:





X-ray accessories



X-ray equipment for maximal flexibility in medical practices, hospitals and ambulatory care

It is essential that mobile and stationary X-ray systems function in a straightforward, quick and safe manner. In addition, variation in patient size represents a special challenge for table design. Machines, tables and stands should work together seamlessly and be adjustable to the needs of individual patients – ranging from small children to adults weighing over 200 kg.

By electing to transition from analogue X-ray technology to computer-aided radiography, you benefit from technological advances, improve image communication, and choose an environmentally friendly X-ray system with the lowest possible radiation exposure.

A large number of systems and versions are available for diverse radiographic applications.

OR Technology's X-ray accessories are compatible with all DR and CR systems on offer, as well as with our software solutions.



X-ray accessories

Searching for a high-quality patient table with sturdy construction and high load bearing capacity?

Premium patient tables for ease of working

Patient tables with high load bearing capacity for mobile and stationary X-ray systems

Our new generation of patient tables is specifically designed for radiographic use. All tables offer maximal convenience and flexibility, and some models are height-adjustable. Castors of moveable patient tables are equipped with locking brakes to ensure safe working conditions. A large number of systems and versions are available for various applications:

- *mobile patient tables with programmable, motorised height adjustment and floating table top (battery operation available) – with a load bearing capacity of 225 kg*
- *mobile, lightweight patient tables without motor for various uses, load bearing capacity 150-210 kg (depending on the model)*

Further information about top-quality X-ray tables is available here:



X-ray accessories

Searching for radiographic stands for your mobile or stationary X-ray system?

Mobile stands, cassette holders & wall mounts

Accessories for maximal flexibility during ambulatory and stationary examinations

Variation in patient size represents a significant challenge for manufacturers of radiography equipment and accessories. All our X-ray accessories, including mobile stands, wall mounts and various other stands, offer maximal convenience and flexibility. OR Technology's X-ray equipment is compatible with all DR and CR systems on offer, as well as with our software solutions.

- *Collapsible mobile stands for portable X-ray units, assembly in less than 10 seconds*
- *Collapsible mobile stands for X-ray detectors (DR) and CR systems*
- *Spring arms for mounting portable X-ray units on walls or ceilings*
- *Diverse stands for cassette holders, medical carts, knee supports, etc.*



Further information about mobile stands and cassette holders is available here:





X-ray accessories

Searching for an extremely lightweight detector holder for ambulatory X-ray examinations?

Smallest mounting system for detectors

VersariX - detector holder with mounts for attachment to doors, walls, tent poles and tree branches

VersariX is THE portable flat panel detector mounting system for X-ray examinations conducted in unusual places such as private residences, old-age homes, medical tents or ships etc. In confined spaces like these, installation of a mobile stand to support the X-ray detector is often problematic. In addition, transporting a fold-up mobile stand is often inconvenient due to its weight and space requirements.

This is where VersariX comes in. Weighing only some 400 grams, it can be attached anywhere, like on room or wardrobe doors, walls, trees etc. The sturdy hook used to suspend the X-ray flat panel detector allows virtually stepless height adjustment. X-ray images ranging from the cranium to the thorax to the foot can be taken professionally and effortlessly.

Further information about detector holder VersariX is available here:



X-ray accessories

Have you gone digital but still require diagnostic-quality X-ray films?

X-ray film printer for diagnostic-quality images

Production of X-ray films from digital data without the use of chemicals

Thanks to the latest printing technology, high-quality X-ray films can now be produced without the use of developer and fixation chemicals.

Laser imager technology brings significant benefits to healthcare facilities in terms of performance, cost and quality. The affordable printers offer consistently low operating costs throughout their entire service life. Due to the small space requirement, the compact X-ray film printers can be simply placed on a desk or counter or can also be used on the move. Operation is extremely simple. The film can be inserted in normal daylight.

The X-ray film printers can be used for various modalities (e.g. X-ray, MRI, CT, etc.) in practice and clinic.



Further information about X-ray film printer is available here:





dicomPACS® **DX-R**
X-ray Acquisition Software

operator: J. Smith
Jefferson, Thomas May 21, 1964

Protocol	DAF	KVp	mAs
Skull PA	73	73	115 mAs
Skull LAT	73	73	200 mAs
Nasal bones	52	52	6.4 mAs
Skull supine LAT	73	73	100 mAs
Nasal bones	44	44	3.2 mAs

finish study

The **heart**
of the
OR Technology
X-ray systems



The professional acquisition and
diagnostic software for static and dynamic
X-ray with DR and CR systems

dicomPACS®DX-R is an acquisition software for X-ray systems for static and dynamic imaging with a straightforward and user-friendly graphic interface controlled via touchscreen and/or mouse. The software package is included in all Amadeo, Leonardo, Medici and Divario systems (except Amadeo P systems). The software also controls the operation of X-ray generators and X-ray units, and thus establishes a structured and efficient workflow.

dicomPACS®DX-R's professional image processing produces images of outstanding quality and can be adapted to special customer needs. The high-performance software includes organ-specific optimisation, which further enhances image quality.

Everyday medical care is made easier by multiple integrated functions – including a multimedia X-ray positioning guide – and an intuitive design. The software can be extended with optional software modules, such as Chiro Tools (diagnostic tools for optimal treatment) and the NUCCA tool set.

Furthermore, the *dicomPACS®DX-R* software can readily be integrated with existing patient management systems. X-ray images can be evaluated using the *dicomPACS®* viewer module within the acquisition software. Thus, the system can function as a fully-fledged diagnostic work station with the option to upgrade to a PACS (Picture Archiving and Communication System).



→ detailed description of the software:

Benefits of our internationally proven acquisition software:

- Modern graphical user interface (GUI), readily **adaptable to new languages**
- **Touchscreen operation** – ensures quick, efficient and structured workflow
- Patient data is captured via **DICOM Worklist, BDT/GDT, HL7** or other protocols – data can also be captured manually
- **DICOM procedure codes** are used to transfer all data relevant to an examination directly from associated information management systems (e.g., HIS/RIS)
- Body parts already stored in the system can be **freely configured** using **over 400 projections** and a multitude of parameters
- Reliable and quick **registration of emergency patients**
- Enables single image acquisition as well as the acquisition of image sequences (**dynamic X-ray**)
- The order of **scheduled examinations can be modified** to avoid unnecessary patient repositioning
- Images can be appended to an examination record later
- Automated, **AI-assisted diagnostic tools** (connection of thorax screening by a qualified third-party provider - optional), additional tools in preparation
- Additional functions, such as the **Chiro-Tools** module (diagnostic tools for the best possible diagnosis) and the **NUCCA tools set** for examinations according to NUCCA standards and much more...
- **Macros for** frequently reoccurring **examinations** (e.g., thorax screening)
- **Fully integrated multimedia radiographic positioning guide** for all examinations including helpful hints, photographs, videos and sample X-ray images
- **Wireless remote control** of the digital X-ray system; with worklist, preview thumbnails and much more...



Benefits of flexible image acquisition:

- Integration of **various flat panel and CR systems** (including dental systems) produced by different manufacturers, includes an **electronic X-ray log** (optional)
- **User-configured generator interface** can control X-ray generators and X-ray systems from many manufacturers, generator settings are adjusted via software
- **Parallel operation of flat panel and CR systems** is a standard feature of the system. Users can choose whether the next exposure is taken by the flat panel or the integrated CR system. This flexibility also functions as an excellent backup in case of a defective flat panel detector.
- **Integrated dose area product (DAP) meter**; DAP measurements are automatically saved to the image
- All **X-ray parameters can be automatically adjusted** for each projection using **AEC** (automatic exposure control) and **APR** (anatomical programmed radiography); manual adjustments are also possible

Automatic image processing for optimal quality

- Perfect images at all times using the **automatic image optimisation** of the integrated software – **further adjustments are rarely necessary**
- **Professional image processing** that can be adapted to meet the needs of each examination and customer
- Our image processing has special features that **provide virtually constant image quality under a wide range of X-ray parameter settings** (allows for dosage reduction)
- Bones and soft tissue in the same image – **details of fine bone and tissue microstructures** significantly improve diagnosis

Further information
about the
acquisition software
is available here:

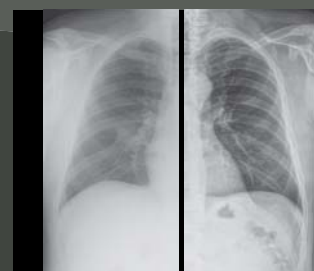




Diagnostic Tools: Upper Cervical (NUCCA) and Standard Chiropractic Tools



Stitching module: Creates a single image from separate digital X-ray images



GLI (Gridless Imaging): Reduces radiation scatter

→ detailed description of the software:

Das **dicomPACS®DX-R** Cognition Optimised Processing (COP) comprises:

ADPC – automatic dead pixel correction

Automatically eliminates dead pixels – this reduces the need to calibrate the flat panel

AIAA – automatic image area analysis

Automatically analyses each image for soft tissue and bone structures and applies the most suitable image processing algorithms

MFLA – multi frequency level analysis

Analyses each image on various frequency levels for ideal sharpness and high subtle contrast

ANF – automatic noise filter

Algorithm for optimal noise reduction

GLI – gridless imaging

Exposures without grid: enables the display of an image as if it had been taken with a grid – this is useful for supine chest exposures (bedside).

AGLS – automatic grid line suppression

Automatically removes gridlines from flat panel images – suitable for grids from 100 LPI to 200 LPI

IBC – intelligent brightness control

Automatically displays the image at the ideal level of brightness

ACO – automatic contrast optimisation

Automatic contrast equalisation across the entire image – this enables the optimal display of soft tissue and bones at the same time

ABBS – automatic black border shutter

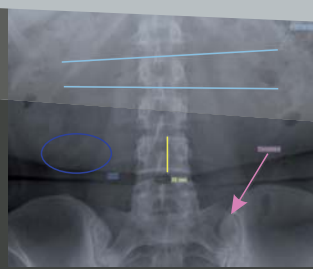
Automatically darkens all parts of an image outside the collimated area – varying degrees of transparency are available and manual adjustments are easy to make.



Dynamic X-Ray: Imaging and diagnosis/
archiving of image sequences



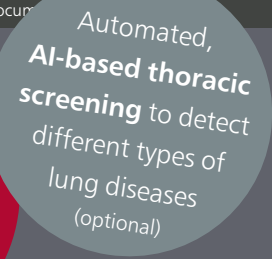
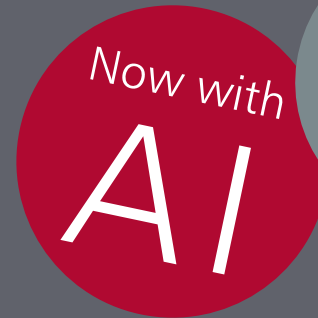
Professional Image Processing: Always
perfect images, no adjustment necessary



Standard annotations: Various
measuring and labeling tools



Prosthesis documentation:
Operation planning and docum



Special measurement tools and filters:

Digital X-ray images have the advantage that exact measurements can be made at the computer monitor and that image processing techniques can be used to improve image quality. *dicomPACS®DX-R* offers an array of special software tools:

Pre-operative planning with the prosthesis documentation module (optional)

This module facilitates planning and documenting operations. Active images are displayed in the size of the original (identical to analogue film images). The prosthesis template can be displayed on the image as an annotation or existing prosthesis template films can be held in front of the monitor.

Upper cervical (NUCCA) and standard chiropractic tools (optional)

The NUCCA tool set and Chiro Tools were developed in cooperation with leading NUCCA experts from the USA and Canada. The NUCCA tool set enables quick and accurate diagnosis without significant changes in your workflow. Chiro Tools improve diagnosis and assist in treatment planning, e.g., by generating centre lines and points, fitting arcs and providing angle measurements.

Gridless imaging (GLI) – X-ray exposures without grid

The elimination of image-degrading scatter radiation functions as a virtual grid and can be used instead of a physical grid for all body parts, including thorax, abdomen, skull, spine and pelvis as well as upper and lower extremities.

Image stitching module (optional)

This feature automatically assembles separate X-ray images with high geometric accuracy to form an overall image with no visible suture lines (e.g., full-leg and full-spine images).

Useful tools and additional functions

Practical aids such as a configurable measuring magnifier, window levelling, zoom functions and various filters and an automatic automatic, AI-based thorax screening facilitate diagnosis. Powerful search tools enable effective comparisons among X-rays stemming from different examinations and patients.

Numerous further functions, including the calculation of Cobb's angle, pelvic obliquity measurements, and integrated diagnosis reports, round out this high-performance diagnostic software package.



di.com PACS®



Innovative digital image management solution for small medical practices and large radiology networks

dicomPACS[®] is a picture archiving and communication system that connects, controls and manages everything having to do with your X-ray images: ranging from exposure and image analysis to archiving and communication.

The *dicomPACS*[®] software can help your dream of a paperless practice come true. With *dicomPACS*[®], images and all types of documents (e.g., medical findings and reports, faxes) are stored in a digital patient folder and readily accessible.

Our sophisticated archive and backup solutions guarantee both quick access to all data and high security standards in keeping with international guidelines for human medicine. Furthermore, the *dicomPACS*[®] software can easily be integrated into all common practice management systems.

The *dicomPACS*[®] software provides solutions for the administration, diagnosis, transfer and archiving of images. The program was designed, developed and tested in cooperation with medical practitioners in order to provide a sophisticated, user-friendly tool for everyday diagnostics.

With thousands of installations worldwide, the system has proven itself many times over. *dicomPACS*[®] is the perfect solution for simple image processing tasks and complex radiological networks alike.



Searching for an intelligent image management system with a reliable archiving and backup solution?

PACS basic package for professional image diagnostics

... An image management system ideal for editing, analysing, transferring and archiving images

In addition to basic functions such as image and patient management, image optimisation, and the ability to measure, highlight, edit, import, export and print, the *dicomPACS*[®] software includes a DICOM receive/archive module for DICOM images and a patient CD module that creates CDs from which patients can view their X-rays using a complementary viewer software. A module for connecting to film and document scanners is also included.

The basic version of *dicomPACS*[®] also contains several documentation modules, software tools for professional analysis of cross sectional images (e.g., CT and MRI), special filters, measurements tools, as well as diagnosis tools (e.g. AI-based thorax screening) for optimal treatment.

Further information about *dicomPACS*[®] is available here:

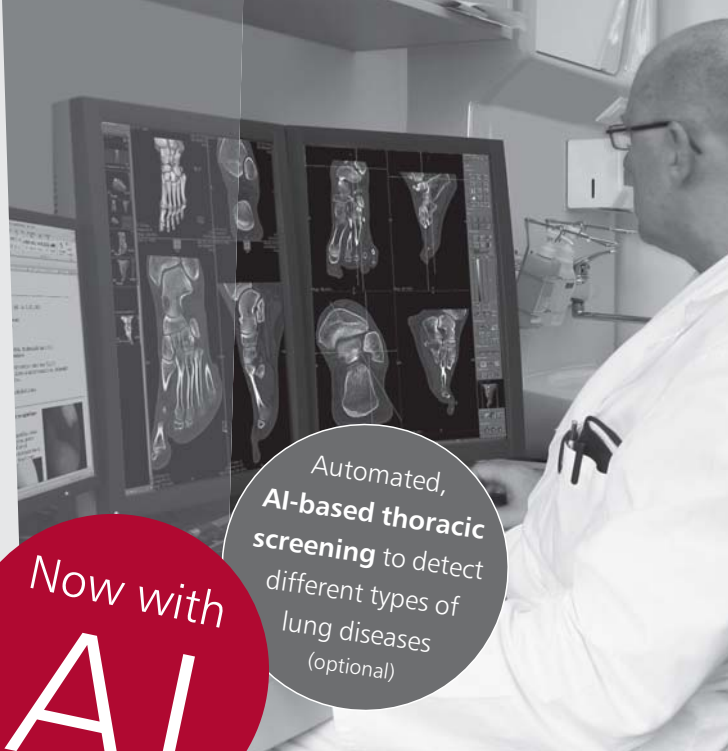


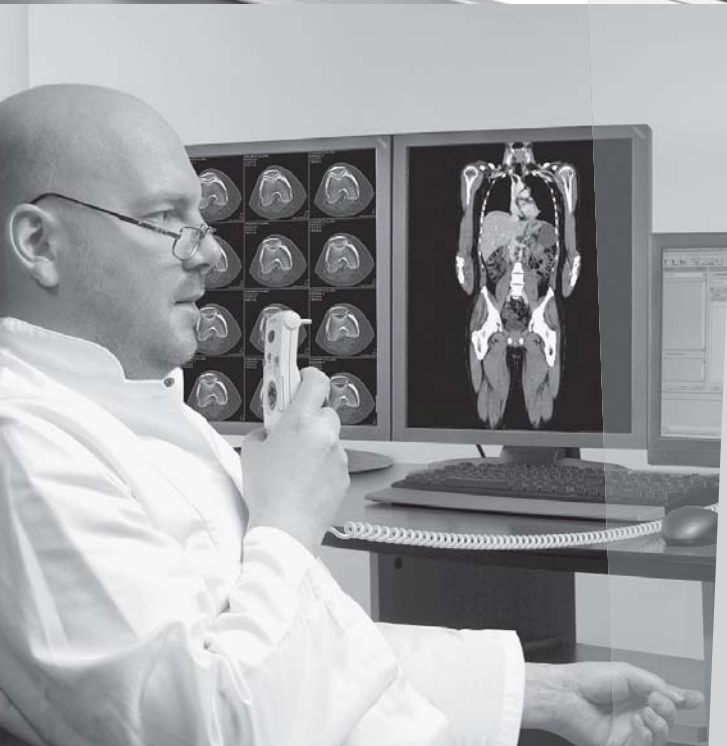
Benefits of the basic package at a glance

- dicomPACS® comes with a large number of special functions and modules (see detailed description on page 35) as well as professional software tools
- Fully functional versions of the diagnostic software at all work stations in your practice (no „light“ versions)
- User-friendly interface, logical and intuitive structure requiring little training
- User interface can be individualised according to your specialisation and needs
- Flexible assignment of shortcut keys for many functions to expedite everyday tasks
- Parallel processing (e.g., image analysis can continue while burning a CD)
- All images and data are permanently available in the network – no need to store old images on CD
- „Perfect memory“ – images are reopened with all previous markings and settings (including zoom and orientation)
- Multiple windows can be opened simultaneously, allowing the concurrent analysis of several patient records without loss of performance - depending on computer hardware
- External documents including doctor's letters, faxes and X-ray images can be imported – no additional modules are required
- Installation possible on systems using Windows, UNIX, LINUX and Apple Macintosh operating systems
- Optimal data security, speed and compatibility made possible by standardised SQL database technology
- All images and documents are compliant with international DICOM standards



Automated, AI-based thoracic screening to detect different types of lung diseases (optional)





Additional software modules

dicomPACS® is a so called „Picture Archiving and Communication System“, acronym: PACS, and it performs many different, at times highly complex tasks. It connects, controls and administrates everything related to your images: from the acquisition of images and the compilation of diagnostic reports to the archiving and transfer of image data. It ensures that the images can be distributed quickly and without complications and viewed e.g. via the web server. In addition, the system is extremely flexible and open for many applications.

- **Prosthesis documentation** – enables the user to plan operations with digital prosthesis templates by one or more manufacturers
- **Report Module** – for easy preparation of different reports (e.g. operation reports, ultrasound reports etc.) incl. Word macros with images and a digital dictation system
- **Statistics Module** – enables freely configurable analyses of the complete database
- **Video Modules** – enable standard and non-standard video signals to be recorded as single images and video sequences
- ***dicomPACS*® MobileView** – enables image distribution within the hospital or to referring doctors via the internet and guarantees very fast image accessibility in original DICOM quality
- **Processing of CT and MRI series** – *dicomPACS*® includes professional tools such as MPR and MIP to evaluate cross-section series
- **Upper Cervical (NUCCA) Chiropractic Tool Set** – Tools for accurate diagnosis and planning of further chiropractic treatment
- **Hanging protocols**
- **Special function for mammography analysis**
- **Integration of speech processing systems**
- **Telemedicine**
- **Special solution for multiple archives**

Searching for a viewer that enables worldwide access to all image data, e.g., so that on-call hospital doctors can make a quick first assessment?

Web-based viewer for all devices

Images and documents any time, anywhere

The web-based viewer *dicomPACS® MobileView* is one of the many extension modules of the *dicomPACS®* diagnostic software.

This application can be used with practically all browsers to view image material on mobile devices both in and outside of hospitals and medical practices. When connected to the internet, doctors and caregivers can access all image files worldwide using the *dicomPACS®* system.

In addition to image diagnostics, the viewer can generate and export diagnostic reports. Similarly, documents can be attached and exchanged using the software. When viewing a patient record, all reports for the patient are displayed. Individual findings may be selected, formatted and exported.



Further information about *dicomPACS® MobileView* is available here:





ORCA®



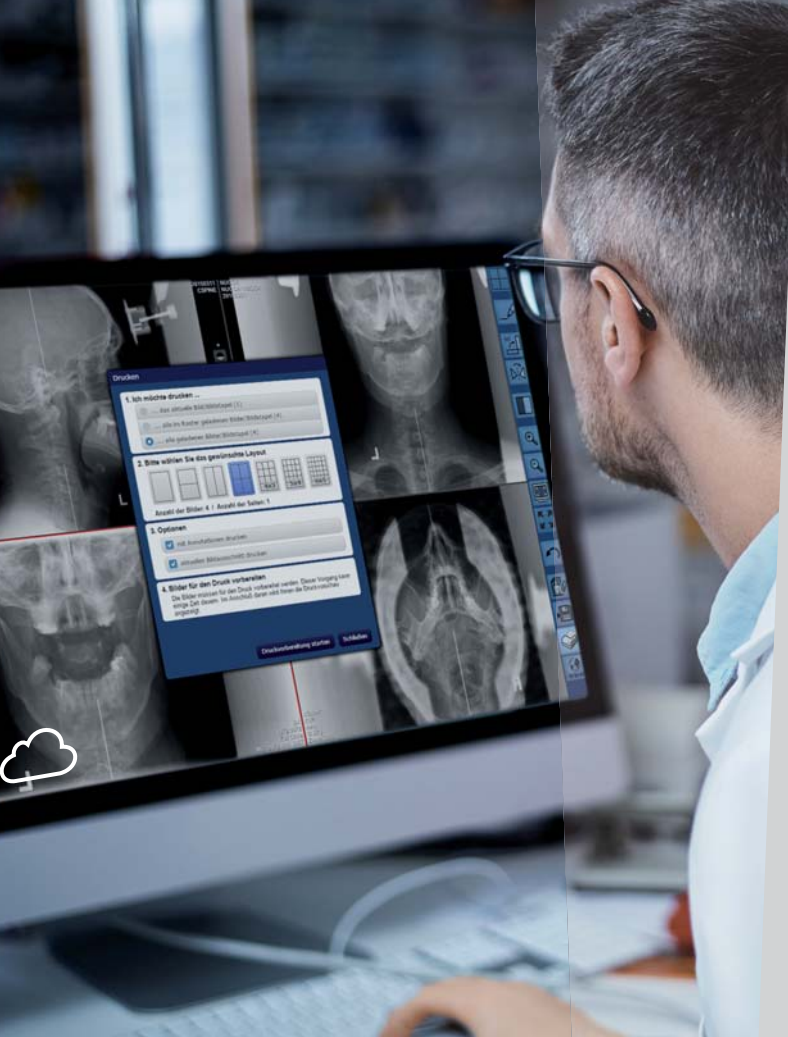
Cloud-based archiving, viewing and transfer of medical images

A daily challenge in medicine is processing the large volume of images generated by modern equipment. Diagnostics greatly benefits from advanced, high-quality imaging techniques and at the same time is faced with ever-growing data volumes.

ORCA® (OR Technology Cloud Archiving), a platform based on cloud computing, is specially designed for storing, viewing and sharing medical images. The DICOM cloud is useful in many different situations: at the home office and for consultations with multiple specialists or even at sea.

ORCA® makes everyday work in medical practices and hospitals easier, cheaper and more progressive. Medical images and documents can be centrally archived in compliance with highest security standards. The service is scalable, allowing for adjustments in storage space as demand grows.

Not only does ORCA® provide third parties with hassle-free access to images and data, it is straightforward to use and helps optimise workflow. ORCA® View, included in the ORCA® package, is a cross-platform program for all browsers and mobile devices. Using ORCA® View, images can not only be viewed, but also processed and analysed using various measurement tools. The program also provides different templates for generating reports. ORCA® View is web-based and requires no local software installation.



ORCA® Archive

Cloud-based X-ray image archiving

Archiving and backup solution
ORCA® Archive for practices, clinics
and hospitals

ORCA® Archive provides storage for image files from direct sources (e.g. digital X-ray, CT, MRI and ultrasound machines) as well as from Picture Archiving and Communication Systems (PACS) in a cloud-based archive. ORCA® Archive can also be used as an additional backup solution.

Wherever the internet is accessible, images archived in the cloud can be viewed and analysed at maximal resolution and quality (DICOM) via the integrated, browser-based ORCA® View program and our diagnostics software *dicomPACS®*.

If you are using a different PACS, images can be downloaded from ORCA® for viewing locally.

Further
information about
ORCA® Archive
is available here:



**ORCA**[®] Share

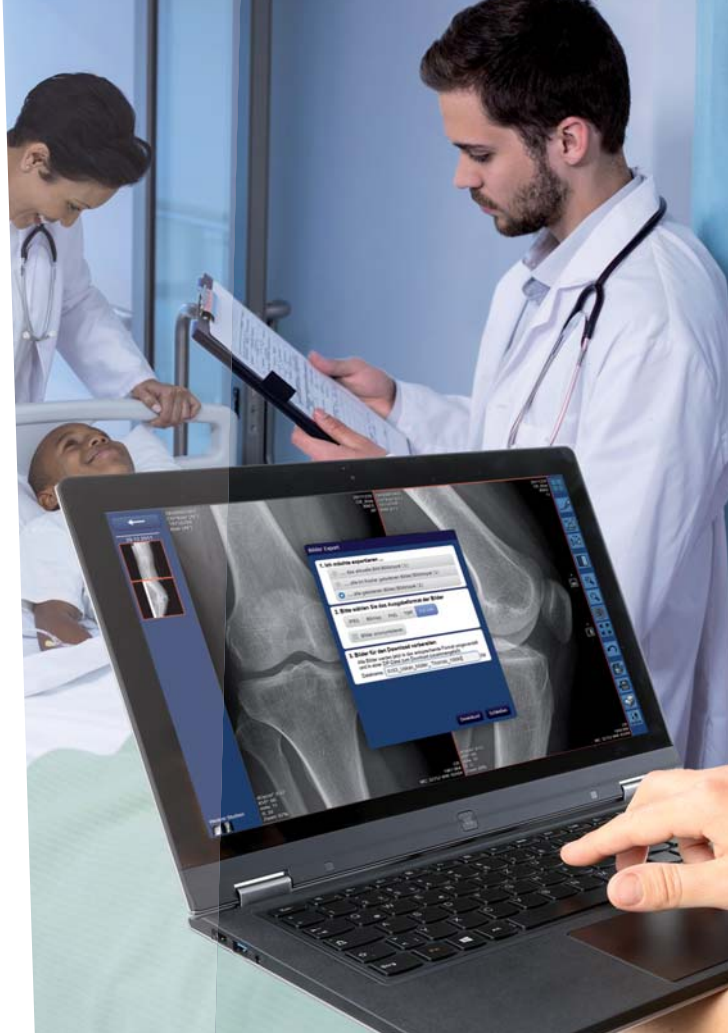
Communication platform and tele-medicine solution

Easy viewing and transferring of images for veterinarians using the DICOM cloud with **ORCA**[®] Share

ORCA[®] makes everyday work in practices and clinics easier, cheaper and more sophisticated. **ORCA**[®] Share is a tool for sharing images and medical findings with doctors and other authorised persons. The service is scalable, allowing adjustments in storage space as demand grows.

ORCA[®] Share is a platform for communication with external partners. Images and reports can be shared with staff, colleagues and specialists via **ORCA**[®].

ORCA[®] Share can also be used to give patients access to medical reports and images. Recipients are sent a secured access link to specific files via email. There is no need to install software locally.



Further information about **ORCA**[®] Share is available here:



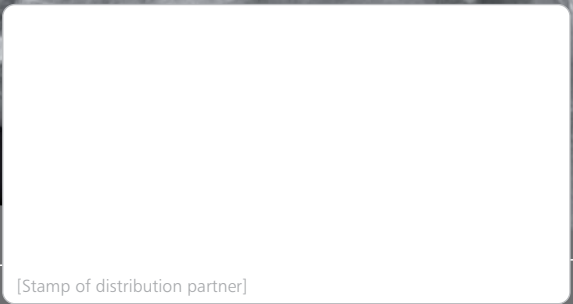
OR Technology

www.or-technology.com | **X-perts in X-ray**



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