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

Acquisition and diagnostic software

for X-ray images from DR flat panels or CR systems

Now with **AI**

Automated, **AI-based thoracic screening** to detect different types of lung diseases

CE 0482 **FDA** 510(k) application has been cleared by the FDA No. K070618   MDSAP Certification QMS ISO13485

☺ OR Technology

Professional

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

acquisition software

for static and dynamic X-ray images

for small medical practices & large hospital departments

dicomPACS®*DX-R* is a **professional acquisition software for X-ray images from flat panel systems (DR) and CR units (computed radiography with imaging plates) by any origin.** In addition, the software **controls X-ray generators and X-ray units** of various manufacturers, providing a smooth and systematic workflow. A simple and **user friendly GUI (graphical user interface) operated by touchscreen or mouse** completes the system.

The professional *dicomPACS*®*DX-R* image processing can be adapted to individual users' needs and offers outstanding image quality. It has been specially developed to enable organ specific optimisation, guaranteeing the highest quality X-ray images.

Many helpful integrated functions such as the radiographic positioning guide and intuitive operation greatly simplify daily routine tasks.

In addition, *dicomPACS*®*DX-R* allows **integration with existing patient management systems**. The integrated full *dicomPACS*® viewer even enables the user to diagnose X-ray images within the acquisition software. Therefore, the system can also be applied as fully-fledged diagnostic workstation with the option to upgrade to a PACS (Picture Archiving and Communication System).

dicomPACS®*DX-R* forms the core of a digital X-ray unit, whether it is a retrofit system to upgrade existing X-ray units, a complete new unit including generator control, or a portable suitcase solution for mobile X-ray generators.

Easy switching between planned examinations if the patient has to be repositioned frequently

The software can be operated via touch screen and guarantees fast, efficient work and an optimal workflow.

Recording of recurring examination procedures as a macro – simplifies work even outside the routine hospital routine

Optimal workflow

The easy-to-use acquisition and diagnostic software offers many advantages:

- Modern graphical user interface (GUI) adaptable to almost **any language**

- **Touchscreen** operation – to ensure quick and efficient work and a smooth workflow

- Capture of patient data via **DICOM Worklist, BDT/GDT, HL7** or other protocols – data may also be captured manually

- Use of **DICOM Procedure Codes** for transferring of all relevant examination data directly from the connected patient management system (HIS/RIS)

- **Freely configurable** body parts with more than **400 projections** and numerous possible adjustments in **human and veterinary medicine** already included

- Safe and fast **registration of emergency patients**

- Allows the user to **switch between examinations** of a patient, for instance to avoid having to re-position the patient frequently

- Allows the user to **subsequently add images** to an examination, even after that examination has already been completed

- Entry of recurring **examination procedures as macros**, e.g. thorax screenings

- **Fully integrated radiographic positioning guide** for each examination incl. comprehensive notes, photos, videos and correct X-ray images

- Option to **control a digital X-ray system via wireless remote** with the app „*dicomPACS*®*DX-R remote control*" via smartphone or tablet. Incl. display of the worklist, preview of the image taken for checking – directly in the app an X-ray can again be planned or a new one can be planned

1 Planning the X-ray examination using the body parts – switch to planning for children and infants with just one click

2 Fully integrated radiographic positioning guide for correct adjustment procedure

3 Proposal of the recommended generator values for the respective study (kVp, mAs, focus, etc.) and worklist [right]

Procedure of an X-ray examination with *dicomPACS®***DX-R**

4

Preview image of the X-ray image (incl. various display options) [left] and work list [right]

5

Findings in the professional PACS viewer incl. further processing, storage of images and much more

6

Extensive search functions and display of the result list

Using your smartphone as a remote control for planning and viewing images during the X-ray process
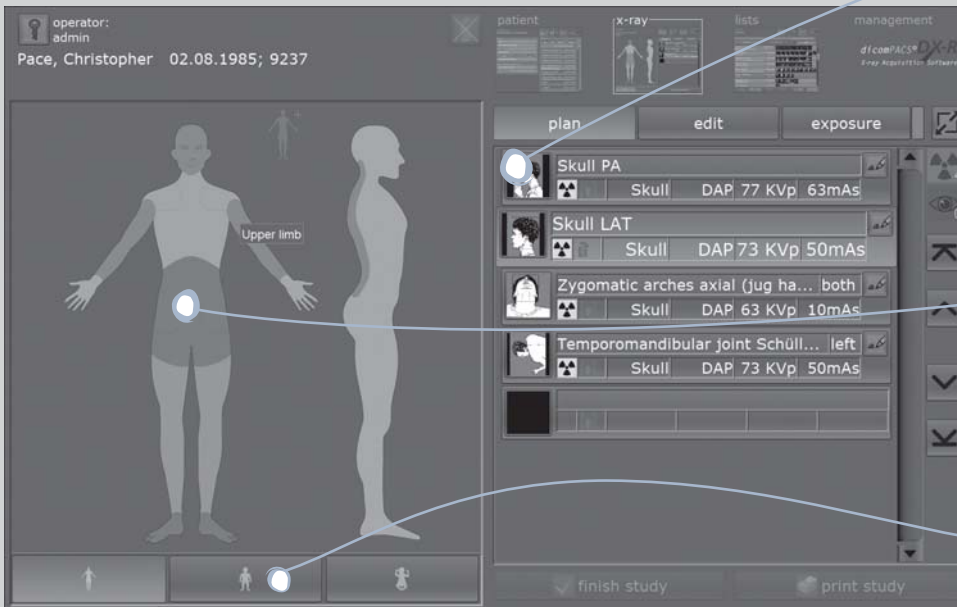
All info about

dicomPACS®DX-R remote control

Optimal workflow

Modern graphical user interface with clearly arranged functionalities

Job creation

The correct settings for adults and children are available at a click

Chart for planning an individual X-ray job

Switch to planning X-ray jobs for children and babies

Radiographic positioning guide

Step-by-step video with sound for patient positioning

Shows an example of a correct X-ray image

Presentation of helpful hints for positioning the patient, central beam, tips and tricks, frequent errors etc.

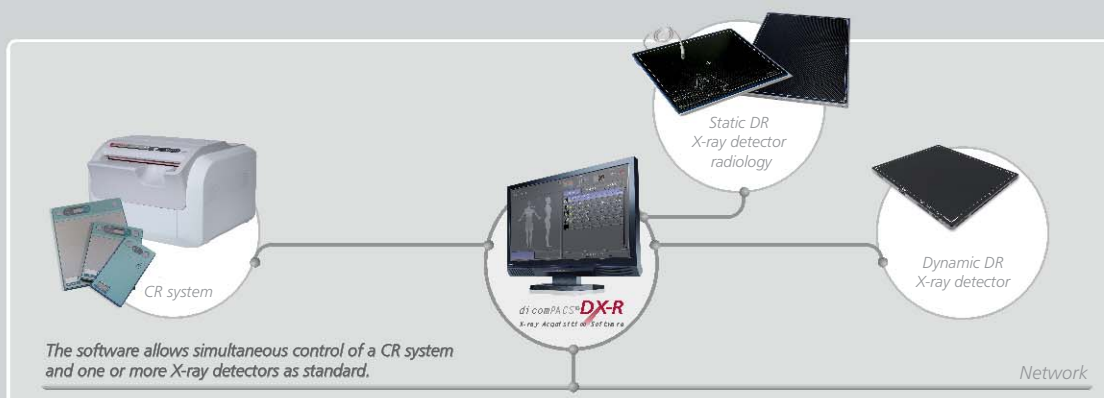*Opens examples of inaccurate X-ray images with comments*

[dynamic X-ray]
**Dynamic
X-ray detectors**
(different
manufacturers)

[static X-ray]
**Flat panel
and CR systems**
(different manufacturers,
also dental panel)

X-ray devices
(motorised)

Panel control

Raw images

Raw images

Control of the motorised system, collimator etc.

Panel control

Positioning protocol

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

- operation software
  for generator and panel
- image processing
- image management

DICOM Worklist
Delivery of patient data and examination instructions

KVp, mAS, body part etc.

Confirmation
when instructions have been carried out

Exposure protcol

HIS/RIS etc.
(Patient management
system)

**X-ray
generator**

Unless
provided by
HIS/RIS

DICOM
Worklist

DICOM
store

Output of processed
images incl. all patient
and exposure data

PACS
(e.g. *dicomPACS®*)

Flexible image acquisition

Optimum adaptation to all X-ray systems

- Integration of various **flat panel and CR systems** by different manufacturers
  for static and dynamic X-ray [dynamic x-ray of image sequences see page 26/27]

- Option to **connect up to 3 flat panels** (bucky, wall stand and mobile)
  to one system

- The **configurable generator interface** enables the user to control
  X-ray generators or X-ray systems by different manufacturers, delivering
  the generator settings directly from the software.

- Option for the **parallel operation of a flat panel and a CR system** included in the
  standard package. The user has the choice to take the next image with either the flat panel
  or the integrated CR system. This flexibility also provides an **excellent emergency
  concept** in case of a defective flat panel.

- **AEC** (Automatic Exposure Control) and **ARP** (Anatomical Programmed Radiography)
  allow the user to **automatically adjust all X-ray options** for each projection with an
  option to subsequently edit the image manually.

- Integration of **dose area product meters** (DAP) – the readings are
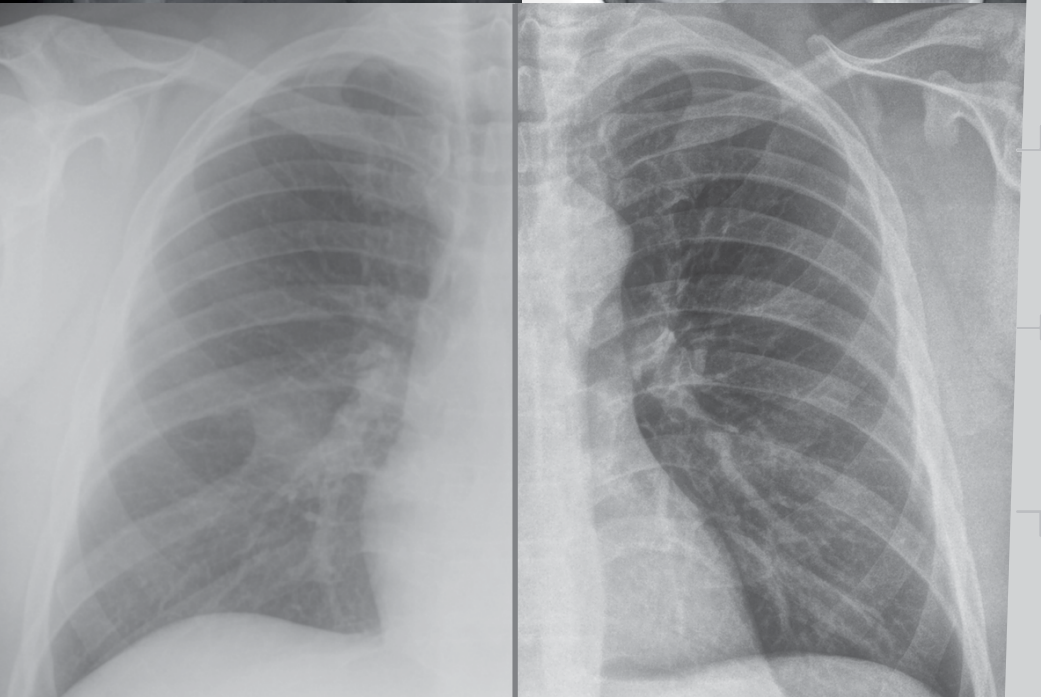 saved directly to the relevant image

- Electronic X-ray log

Static DR
X-ray detector
radiology

Dynamic DR
X-ray detector

CR system

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

The software allows simultaneous control of a CR system
and one or more X-ray detectors as standard.

Network

For more detailed information
please see: **www.or-technology.com**
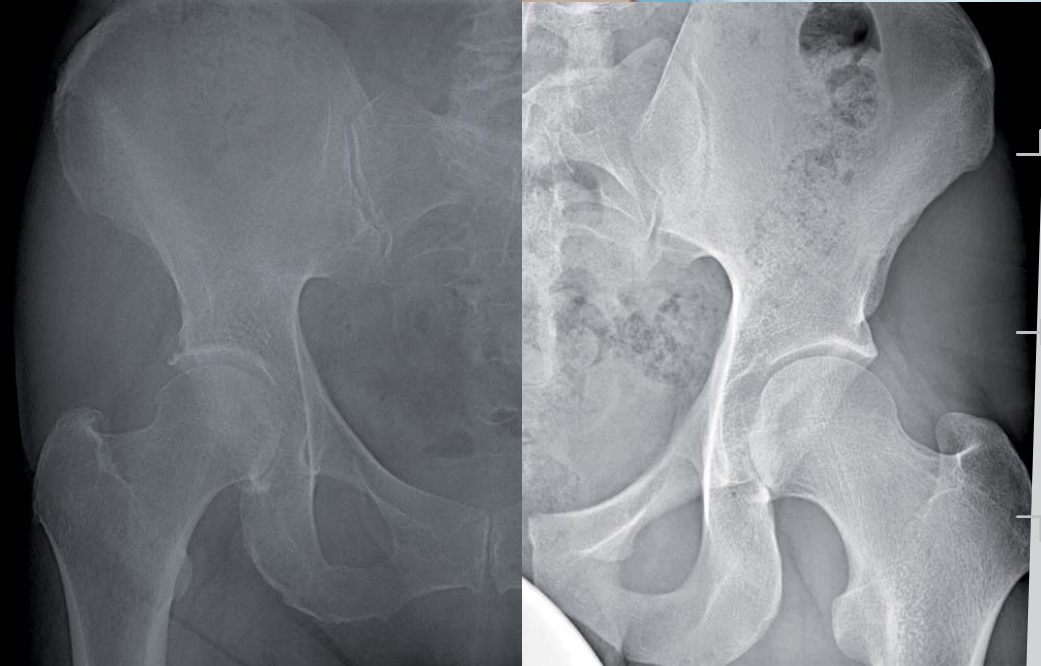
Image processing
Left:
Conventional image
processing
Right:
dicomPACS® DX-R Image
Processing

GLI image comparison
Left:
Exposure without grid
Right:
Same exposure with GLI
scatter reduction

Image processing
Automatic image optimisation for perfect images

- Perfect images at all times – generally **no adjustment** required

- Integrated software for **automatic image optimisation with COP**
  [see page 12/13]

- Professional, **adaptable image processing** for each individual examination to
  obtain best possible image settings for each customer's needs

- Due to specially developed processes, the image processing allows the
  user to **vary the X-ray settings on a large scale** while the image quality
  remains virtually the same (**possibility of dosage reduction**)

- Bones and soft tissue in one image – this enables the user to
  significantly improve the diagnosis

- **Details of bones and microstructures are very easy to recognise**

- Noise suppression

- **Black border** (automatic shutters)

- Automatic **removal of grid lines** when using fixed grids

- **GLI (gridless imaging)** – reduction of scattered radiation:

GLI: X-ray imaging without grid

Grids are required for X-raying large body parts in order to focus the radiation
and reduce scatter, thus improving the contrast and brilliance of X-ray images.
The virtual scatter reduction GLI works like a grid and can be used instead of a
physical grid for all body regions, including thorax, abdomen, skull, spine,
pelvis and upper and lower extremities.
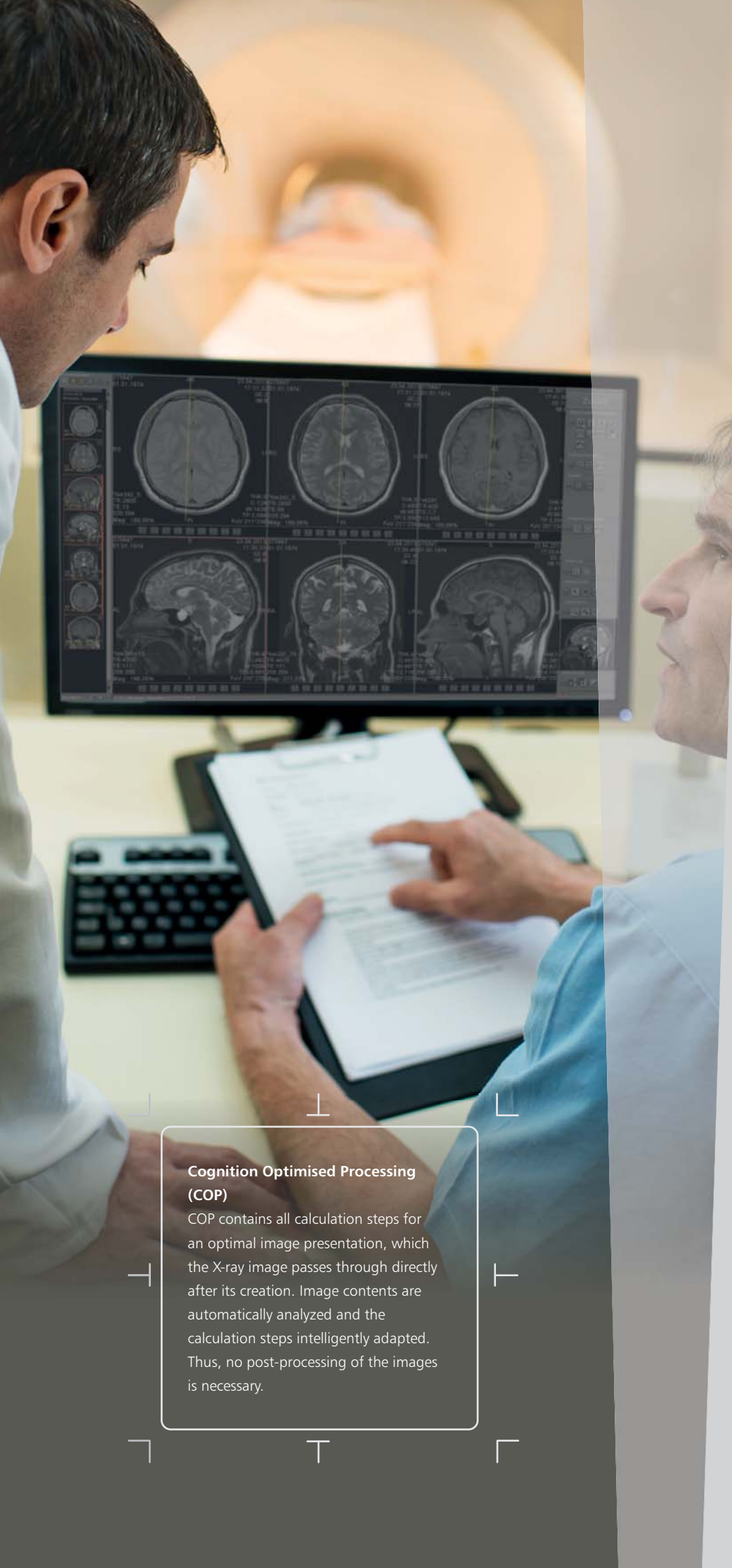
Cognition Optimised Processing (COP)

COP contains all calculation steps for an optimal image presentation, which the X-ray image passes through directly after its creation. Image contents are automatically analyzed and the calculation steps intelligently adapted. Thus, no post-processing of the images is necessary.

Optimisation of image data

with the *dicomPACS*®***DX-R*** Cognition Optimised Processing

The automatic calculation steps of Cognition Optimised Processing (COP) include:

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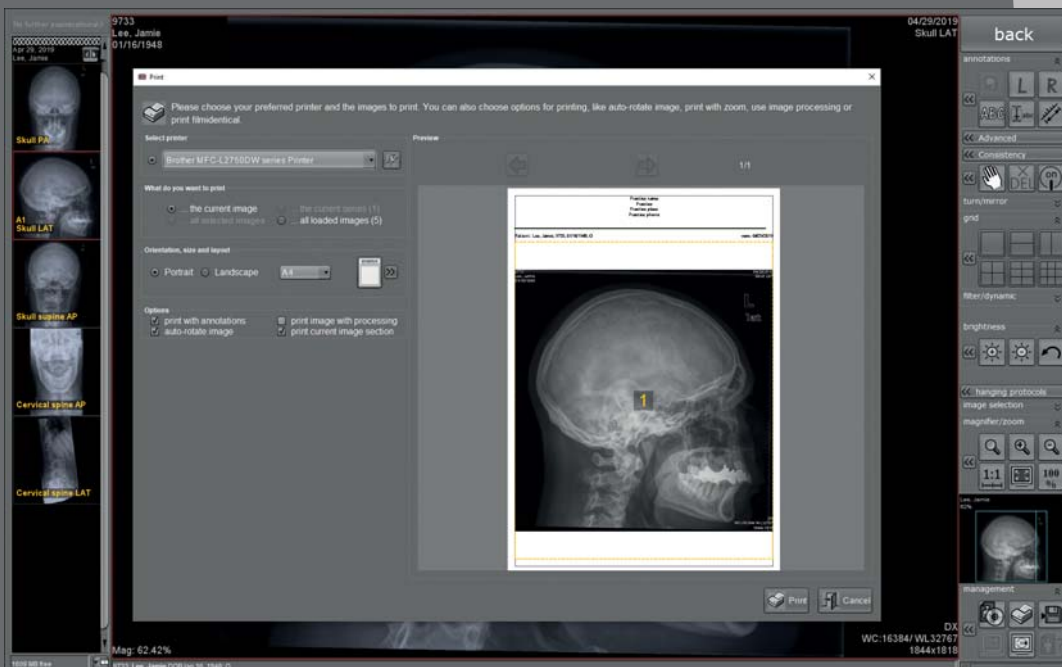
ABBS – automatic black border shutter
Automatically darkens all parts of an image outside the collimated area – varying degrees of transparency are available and manual adjustments are easy to make.

Professional diagnosis with the completely integrated *dicomPACS*® Viewer for image diagnosis
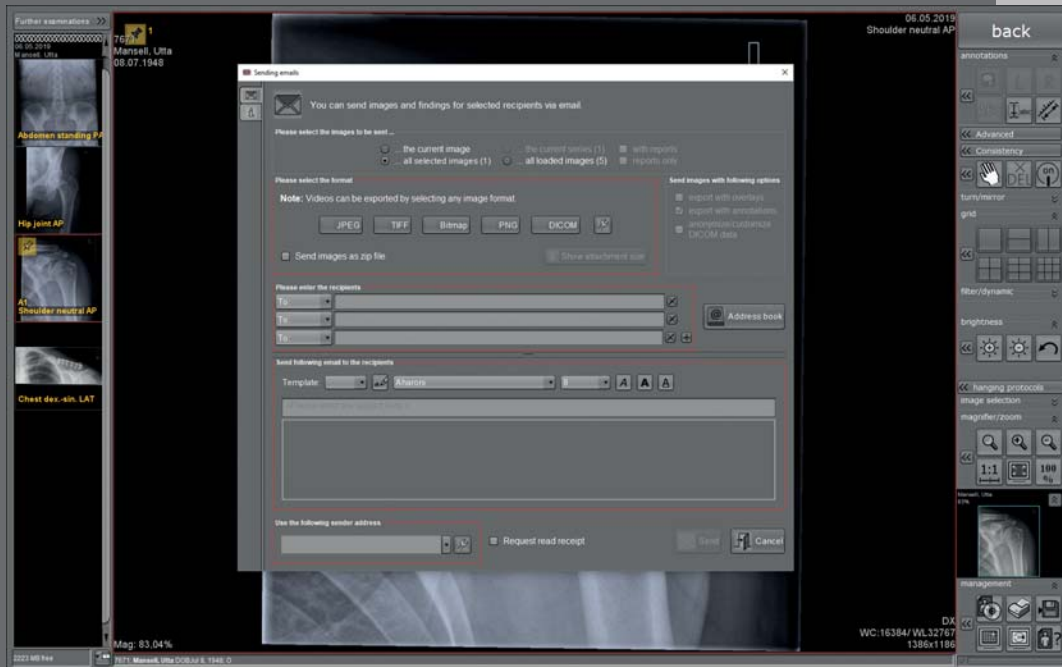
Image export: Send images by e-mail directly from the software

Image export: Print of X-ray images on Windows printers (paper) and laser imagers (film)

Image diagnosis

Professional diagnosis and image processing with the integrated viewer

- Completely integrated *dicomPACS*® **viewer for image diagnosis**, further processing and storage of images in an SQL database incl. image manipulations, export options, layout adjustments, freely configurable user interface and much more

- Stepless **zoom, PAN, magnifyer, ROI, crop, rotate, mirror** etc.

- Insert **image annotations**, e.g. free texts, arrows, ellipses etc.

- **Measure** distances, angles, areas and density

- Extended acquisition functionality for use in **mammography***

- Adjust window/level options and **gamma correction**, sharpening filters, noise suppression

- Many additional functions such as **chiro tools,** calculation of **Cobb's angle, pelvic obliquity measurements, integrated capturing of diagnostic reports** etc. as well as the possibility of diagnosis through the connection with **AI-supported thorax screening** (through a qualified third-party provider)

- Easily upgradable to the **integrated image management system** (PACS)

Image export

- **Export images** to JPEG, TIFF, BMP and DICOM formats

- Print images both on Windows printers and laser imagers via **DICOM Basic Print**

- Creat **DICOM patient CDs** with free WEB viewer

- Inbuilt **email tool** to image distribution - no external email application necessary

*Pending CE and FDA conformity approval for the module.

Integrated Viewer

Integrated *dicomPACS®* Viewer for **image diagnosis, further processing and storage of images** in an SQL database incl. image manipulations, export options etc.

The integrated **prosthesis module** allows preoperative planning (optional)

The system enables quick and **easy adaptation of the user interface** to individual customer requirements

Useful tools, such as configurable measuring magnifier, make reporting significantly easier

The **stitching module** creates a single image from separate digital X-ray images (optional)

Comprehensive search tools allow the comparison of X-ray examinations, even of different patients

CR systems

In combination with the professional image acquisition software *dicomPACS®DX-R*, a CR system combines all necessary image processing functions.

DR systems

DR X-ray systems can be controlled by the professional acquisition and diagnostic software *dicomPACS®DX-R*.

Modalities

Which flat panels and CR systems does *dicomPACS*®**DX-R** support?

dicomPACS®*DX-R* is a generally open system. Its conception and development was independent of hardware manufacturers.

Components from the following manufacturers have already been integrated (We are continuously working on the integration of new models and manufacturers):

X-ray detectors (DR)

ATLAIM

CARERAY

DR TECH

HAMAMATSU

奕瑞影像 iRayTechnology

Kodak | Dental Systems

KONICA MINOLTA

LG

上海品臻影像科技有限公司
Shanghai PZMedical Technology Co., Ltd.

Rayence

THALES

Canon CETD

VAREX IMAGING

vieworks

CR systems

Divario CR Systems

FireCR

Carestream HEALTH

FUJIFILM

Individual adaptation of the graphical user interface according to the specifications of the OEM partner

Complete control of X-ray generators and X-ray systems from various manufacturers

Orderly and optimal workflow
&
Simple and user-friendly user interface

OEM: Software wanted?

Who is interested in *dicomPACS®***DX-R** from OR Technology?

OEM partnerships provide numerous benefits to manufacturers who are interested in combing their X-ray systems with our *dicomPACS®DX-R* acquisition software under a chosen brand name. The software helps all manufacturers **reduce their development costs** and significantly **shorten the time to market for digital solutions**.

dicomPACS®DX-R is THE software for the complete integration of X-ray generators, stands, detectors, CR systems, image processing, file management, patient administration and PACS (including cloud computing).

The system is openly programmed and can be **customised to the specifications of the OEM partner**. The Look & Feel can be adapted to the existing CI/CD.

dicomPACS®DX-R is a professional acquisition software for X-ray images generated by various X-ray detector systems (DR) and CR units (imaging plate reader). The software also controls the operation of X-ray generators and X-ray units manufactured by varios companies, thus ensuring an efficient and orderly workflow. The user-friendly and straightforward visual interface functions via touchscreen and mouse.

The **stitching module** creates a single image from separate digital X-ray images. The images are loaded, correctly aligned and merged to one image.

Upgrading

Which possibilities can be added to the *dicomPACS*®*DX-R* software?
[optional]

dicomPACS®*DX-R* may not only be used as a software for the acquisition and processing of X-ray images, but can also be upgraded to a MiniPACS or even to an Enterprise Multi Modality PACS. Thousands of installed workstations in over 100 countries (as of 9/2019) prove that our customers are satisfied.

A single workstation system with installed *dicomPACS*®*DX-R* software can be upgraded with the following options (extract):

Extended viewer functionalities

- **Generator control** for transmission of the set parameters for the X-ray image to the generator (for already integrated generators)

- Tools for creating full-leg and full-spine images (**image stitching**)

- Preparation of diagnostic reports with integrated images in MS Word

- Connection of several diagnostic monitors

- Capturing additional patient and examination data and freely configurable **statistical analysis**

- Working with **digital prosthesis templates for surgery planning** and documentation - Prosthesis templates can be selected from a set and inserted into the image as annotations

- Additional radiological functions such as Maximum Intensity Projection (**MIP**), Multiplanar Reconstruction (**MPR**), hanging protocols and mammography tools

- And much more…

Image sources

X-ray

NUK

MRI/CT

DR system

Mammography

CR system

Patient CD writer

Ultrasound

Video projector

Dokument scanner

Laser printer

OP documentation

Image displaying

Laser imager
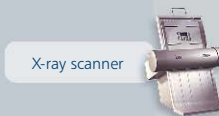
X-ray scanner

dicomPACS®
network

Viewing station

Backup server

Picture archiving

Image viewing

Viewingstation

DICOM cloud

ORCA® *Archive*

Image processing

Multi monitor workstation

Interface to HL7/ BDT

Home workstation

Telemedicine

Cloud sharing

Cloud solution **ORCA®**

Functional principle
The diversity of *dicomPACS®*

Upgrading
Upgrade to an integrated multi-modality PACS
[optional]

DICOM reception from any DICOM sources, e.g. CT, MRI, scintigraphy, ultrasound etc

DICOM distribution with freely configurable rules

DICOM DIR import for archiving patient CDs from other manufacturers

DICOM Query/Retrieve (SCP/ SCU)

DICOM Auto **Pre-fetching**

DICOM Print Server to convert DICOM Basic Print into Windows print jobs

DICOM Compression according to freely configurable rules

DICOM CD/DVD Backup Module, also via robot systems

Integration of **film and document scanners**

Digitalisation of standard and non-standard video signals,
e.g. **endoscopy, angiography** etc.

Fully automatic **synchronisation** of two image databases, e.g.
laptop and main archive

Exchange of images and diagnostic reports between individual
clinics by means of teleradiology

ORCA® **– cloud-based solution**: enables worldwide image
distribution to referring doctors and patients via the internet [detailed
description starting on page 40-41]

Web-Viewer *dicomPACS*®*MobileView*: distributes images within
a hospital and displays the images in a web browser [detailed
description starting on page 38-39]

Changing the Capture Mode

Working mode: Lumbar area with catheter

Capture mode: Thorax

Dynamic X-ray

Acquisition, diagnosis and archiving of
image sequences [optional]

In addition to classical X-ray examinations, it is sometimes necessary to clarify special suspicious facts and unclear diagnoses further in the context of a radioscopic examination. *dicomPACS®DX-R* supports this procedure with the special imaging mode "Dynamic X-Ray "*, in which the region to be examined is continuously "X-rayed" with pulsed X-rays and displayed directly on the diagnostic monitor.

Dynamic X-rays also allow the evaluation of moving structures, such as the respiration-dependent movement of the diaphragm or the beating of the heart. This examination method is also necessary for various contrast agent examinations, especially of the gastrointestinal tract, which can be excellently imaged with *dicomPACS®DX-R*.

dicomPACS®DX-R supports dynamic X-ray with selected X-ray detectors of different resolution and size.

Advantages of dynamic X-ray with *dicomPACS®DX-R*

- Before continuous shooting, it is possible to take still images to check the exposure parameters.

- After the recording is finished, the length of the image sequence or Windows level values can be adjusted, for example.

- Various diagnostic options are available, such as playing the sequence as a single frame sequence or as a video via cine loop.

- The recordings can be saved as uncompressed DICOM or in JPEG 2000 format.

- The recording sequence can also be saved as a series of individual images (required for PACS systems that do not support multi-frame DICOM).

*Pending CE and FDA conformity approval for the module
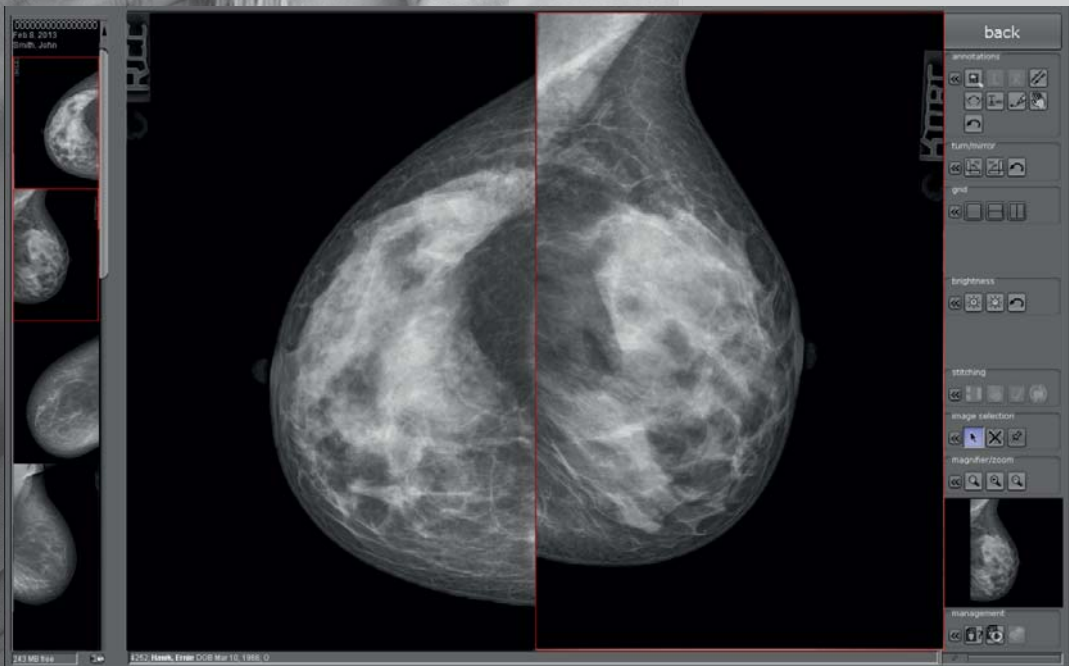
Fully integrated viewer for diagnosing with specialised mammography tools

Modules & Features

dicomPACS®DX-R includes a module for

mammography exposures [optional]

Extended acquisition functionality for use in mammography*:

- Specialised organ tree
- Mammography Hanging Protocols
- Documentation of additional examination parameters such as filter, thickness, angle, implant
- Mammography tools in the console viewer:
  - 100% magnification
  - Mammo inversion function
  - Mammo grid function (quadrant diagnosis)

*Pending CE and FDA conformity approval for the module.

Job creation with specialised mammography
organ tree

Standard Chiropractic Tools
The Chiro Tools offer great possibilities for diagnosing accurately as well as for planning further treatment.

Depending on the tool used, automated center lines and points, defined curves, angle measurements etc. are generated after manually selecting of the points of interest.

Dr. Jeff Scholten is a past president of the ICA Council on Upper Cervical Care and the clinic director and owner of The Vital Posture™ Clinic in Calgary, Canada. He was recognized as the Upper Cervical Chiropractor of the Year in 2015. In addition to other responsibilities he is President of the National Upper Cervical Chiropractic Association (NUCCA).

Doktor Jeff Scholten

He works with the *dicomPACS*® Upper Cervical Chiropractic Tools developed by OR Technology:

„I was very impressed that the software has evolved into a complete analysis tool for ALL diagnostic image requirements, including MRI and CT images. I appreciate the simplicity of working with the tools integrated into the standard image processing software to analyse and calculate the adjustment to be made, which increases the precision of the therapeutic measures."

Modules & Features

*dicom*PACS® Standard Chriopractic Tool Set –
Diagnostic tools for optimal treatment [optional]

The Chiro Tools have been developed in cooperation with leading experts from
the USA and Canada and offer great possibilities for diagnosing accurately as
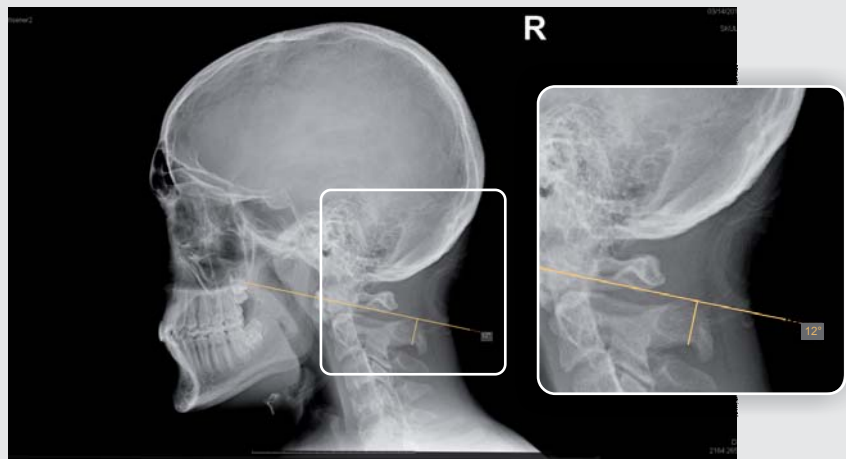well as for planning further treatment.

Axis line
The tool creates a
vertical or horizontal axis,
depending on the direction
in which the mouse pointer
is moved.
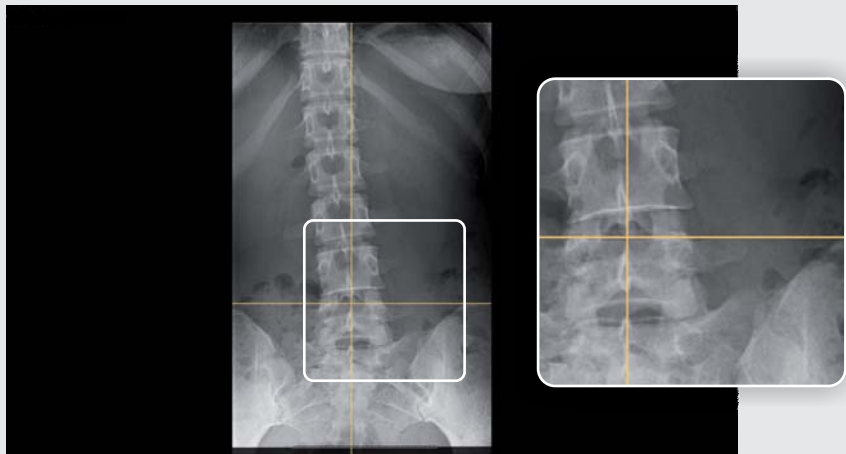
Orthogonal line
This tool is used to mark
perpendicular lines on existing
or yet to be drawn baselines.
The divergence of the base
line from the closer axis
(horizontal or vertical) is
displayed by default.

Examples
dicomPACS® Standard Chiropractic Tools

George's line
This tool is used to draw lines on each vertebra along the spine in a lateral view and to detect their distances (in mm or inch).

Horizontal or vertical level
This tool calculates the horizontal or vertical level. By default the nearer axis is used for calculation.
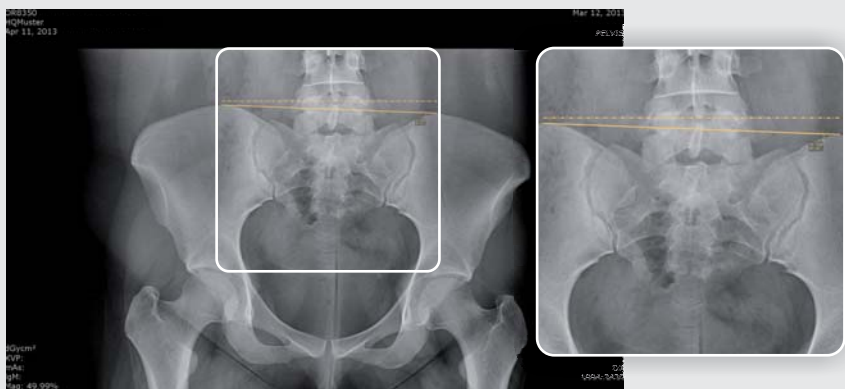
Circumscale
An arc is drawn through three defining points and the diameter of the corresponding circle is displayed by default.
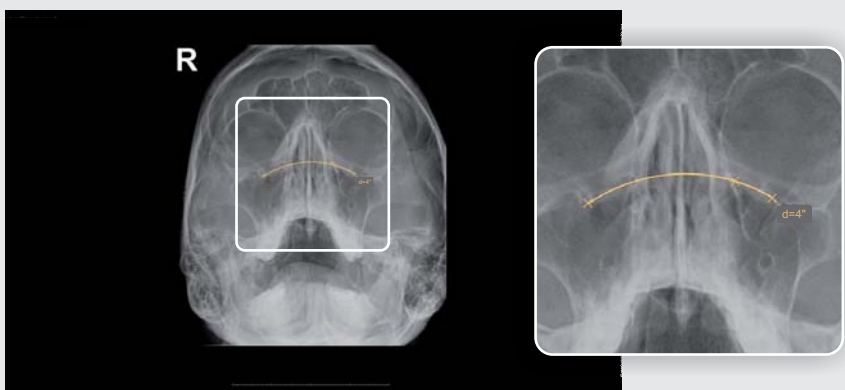
Spinal curve
This tool is used to draw an arc in the lateral view of the spine. The annotation uses a fixed radius set by default to 220 mm. Radius or degree can be adjusted.

Vertebrae line

The vertebrae line is generated from the center points of 2x3 manually set points along the spinal canal and and displays the side of laterality and the lateral divergence in degrees.
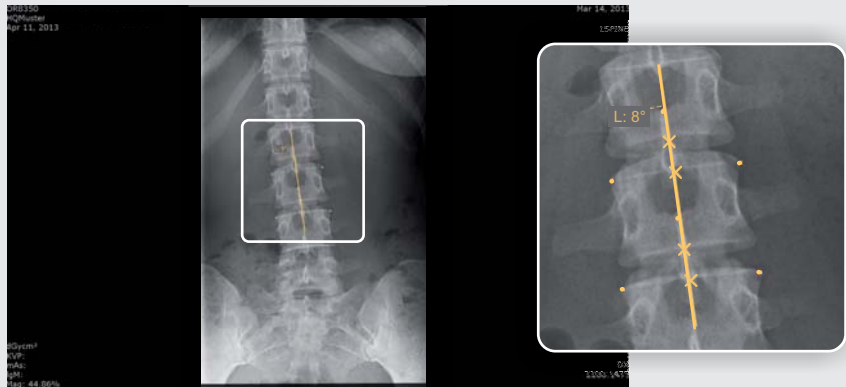
Center point

This tool calculates the center point between two points.
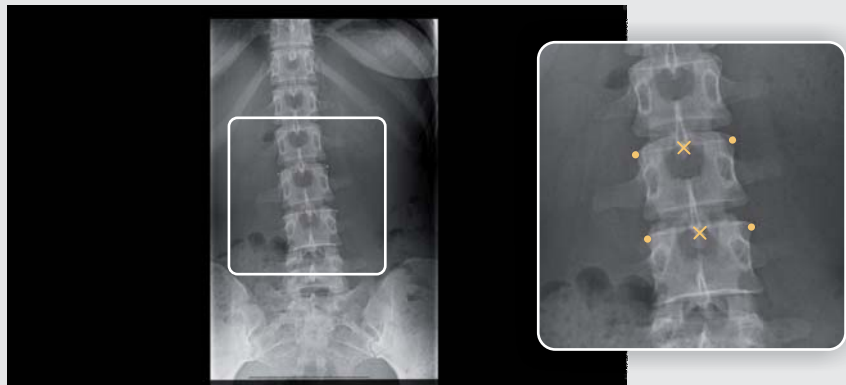
Distance comparison

This tool compares the distances between three set points (between point 1 and point 2 and between point 2 and point 3) and shows the longer distance.

Pelvic obliquity

This tool is a measurement that is calculated automatically after two simple clicks which generate two horizontal lines showing the distance between these two axes.
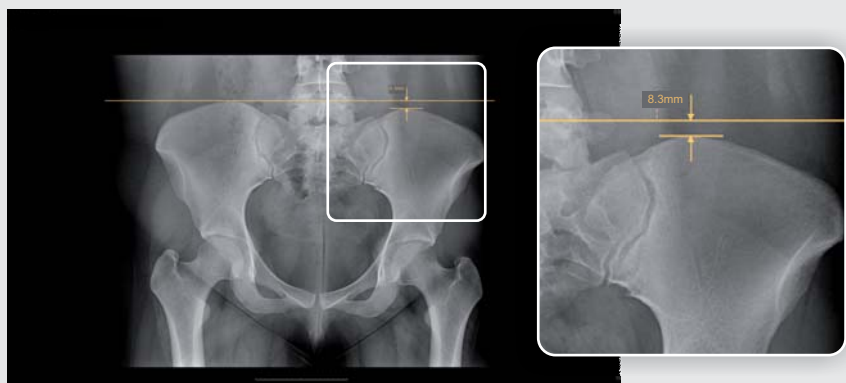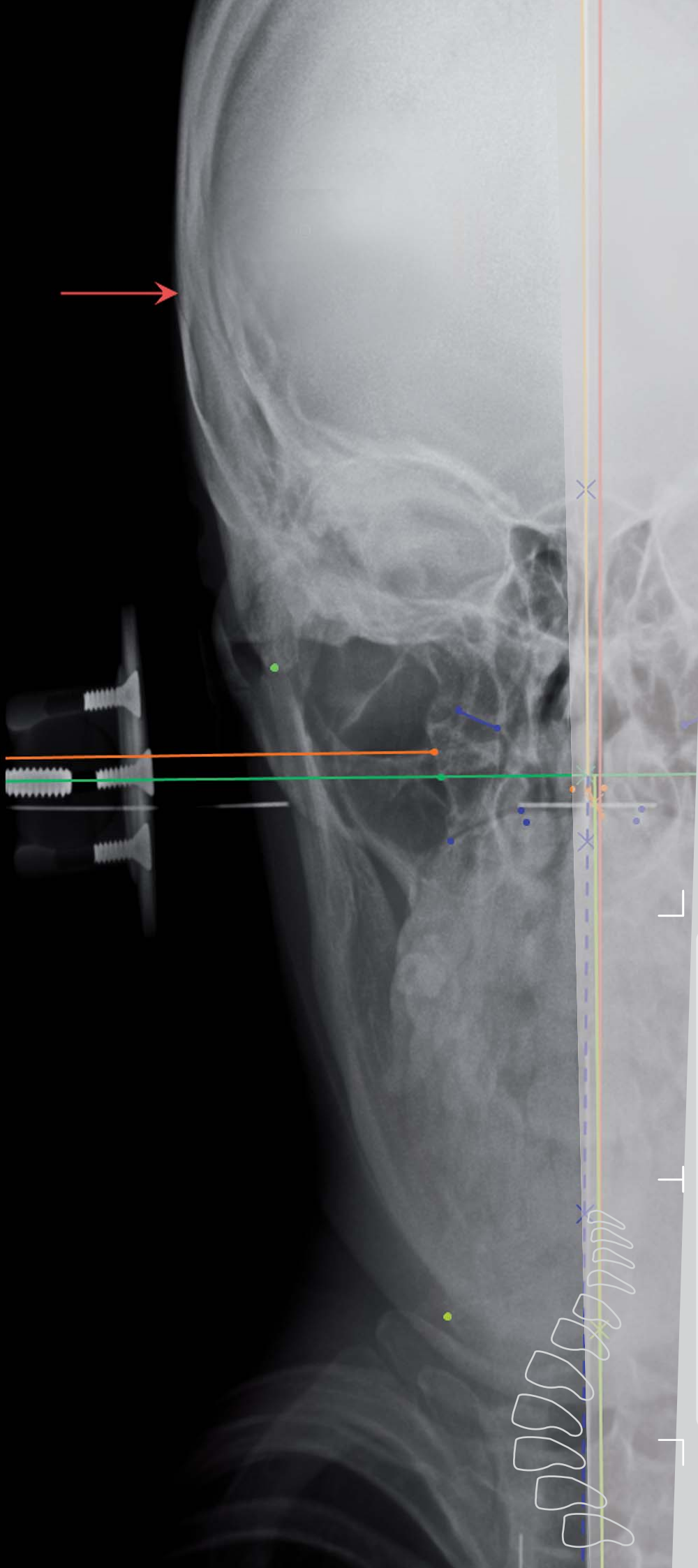
Upper Cervical Chiropractic (NUCCA)

The Upper Cervical Chiropractic tool set has been created in cooperation with leading experts from the US and Canada. It offers a variety of ways to reach a fast and accurate diagnosis. Our NUCCA tools offer all the advantages of digital working and provide you the security of your usual work routine.

Modules & Features

dicomPACS® Diagnostic Tools for Upper Cervical Chiropractic (NUCCA) [optional]

On the following pages we give you an overview of our NUCCA tools. In addition, we will exemplarily show you how single tools work.

NUCCA procedure – main tools and measurements:

Nasium View	Vertex View
- Atlas Plane Line	- Odontoid Center
- Atlas Check Line	- C2 Spinous Tools (Axial Canal
- Squamous Sutures	and Vertex Square)
- Central Skull Line	- Vertex Atlas Line
- Plane Line	- Vertex Skull Line
- Condylar Circle & Axial Circle	- Vertex Check Lines
- Center of Odontoid	
- Intermastoid Line	
- C2 Spinous Tool	
- Inferior Point Tool	
- Four Elements and Listing Information	

Other measurements and tools:

- Interactive templates: Cephalometer, Circumscale, Grid, Relatoscope
- A Raw Data Box with all measured values is visible on each view
- Laterality, Skull Tippage, APL/ACL, Body Center, IML/CSL, Lower Angle,
  Angular Rotation, Atlas Rotation …
- Tools and measurements for the Lateral View: S-Line, Hard Palate Line, Contacts

General features:

- Progress bar for each view
- Points, lines, values and templates are editable and configurable
- Colours and points are customisable
- A little help menu is available for every single tool. It gives hints for keyboard
  shortcuts and supports you in how to use every tool step by step.

Examples
## *dicomPACS*® Diagnostic Tools for Upper Cervical Chiropractic

Cephalometer and Central Skull Line
Use the Cephalometer to draw the Central Skull Line. Laterality and Skull Tippage will be calculated automatically. The four elements and listing information will be inserted.
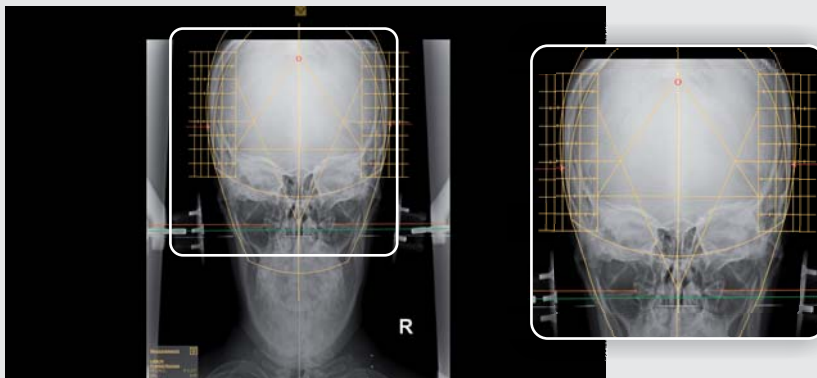

Condylar Circle
Choose between the three point and four point Condylar Circle. The middle point will be shown. You can set the calculated measurement manually to the value you prefer. The Relatoscope will use the shown value.
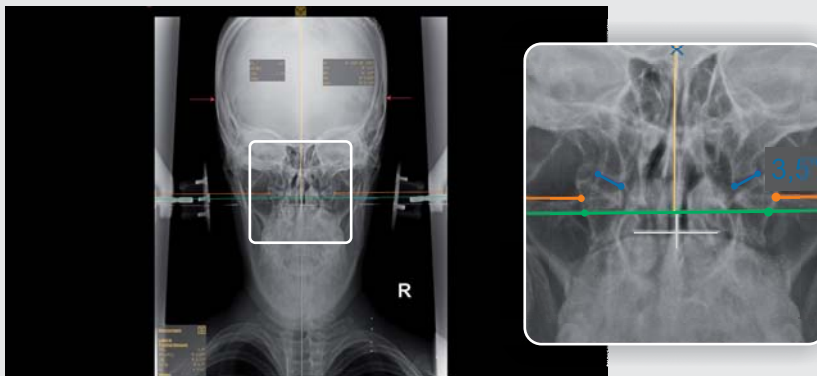

Odontoid Center and Vertex Square
Mark the lateral aspects of the dens and the Odontoid Center Line will be inserted. After marking the C2 canal, the Vertex Square will be inserted and the Spinous value will be calculated depending on the Condylar Circle.
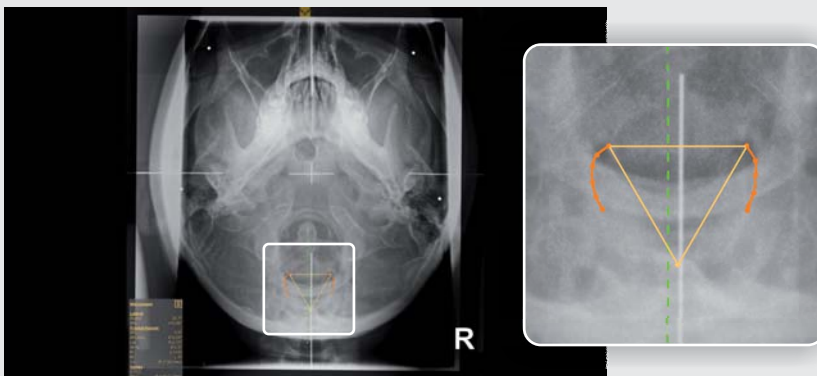

Odontoid, Spinous and Relatoscope
Use the Relatoscope to apply the Spinous value from Vertex to Nasium View. Mark the lateral aspects of the dens and the (corrected) Odontoid will be inserted automatically.
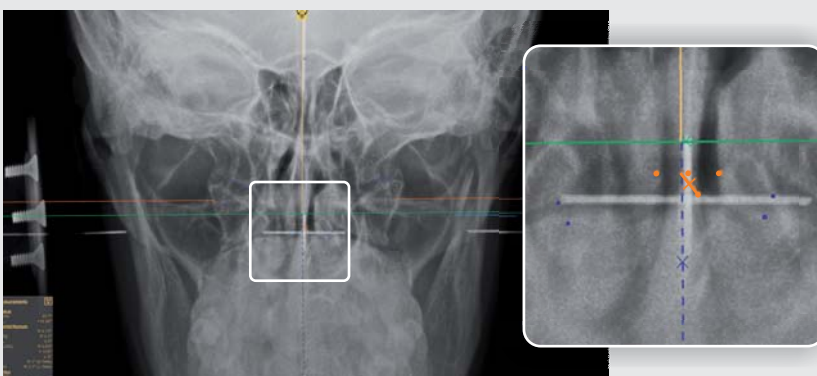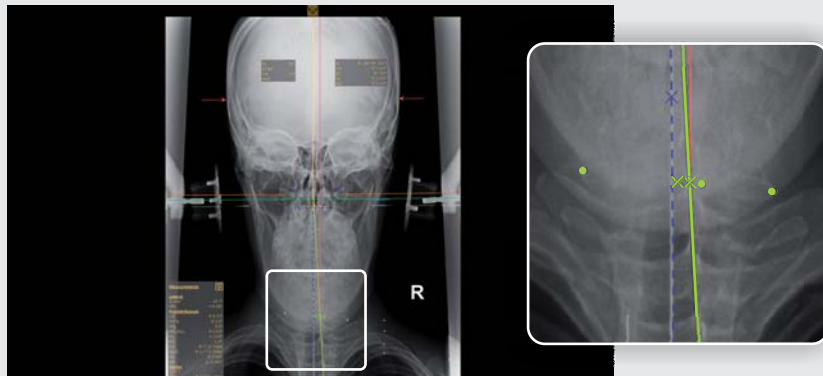
Vertex Skull Line

After marking the nasal structures, click the Inferior Point button. The point will be set automatically depending on the Listing Information value and the Vertex Skull Line will be inserted. Atlas Rotation will be calculated.
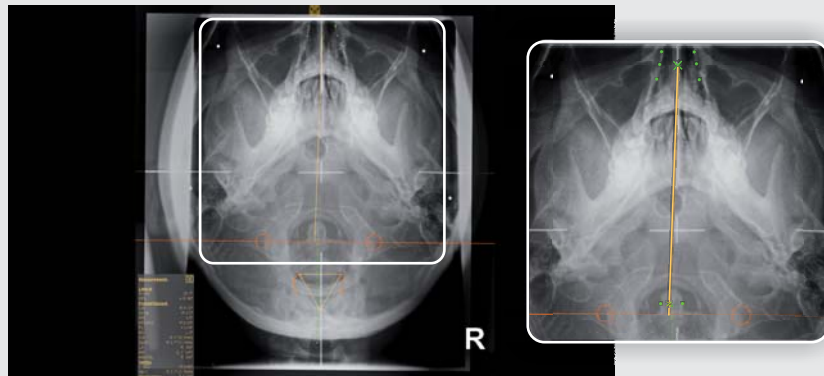
Lower Angle and Angular Rotation

The Lower Angle and Angular Rotation will be calculated automatically after setting the Inferior Point. You can also set a corrected Inferior Point.


Intermastoid Line

Mark the inferior tips of the mastoid processes. The measured value, its orthogonal divergence from the Central Skull Line, will also appear in the raw data box.

Vertex Atlas Line

After marking the transverse foramina of the atlas with three points each, the Vertex Atlas Line will be drawn and the convergence of C1 and C2 is shown in the raw data box.
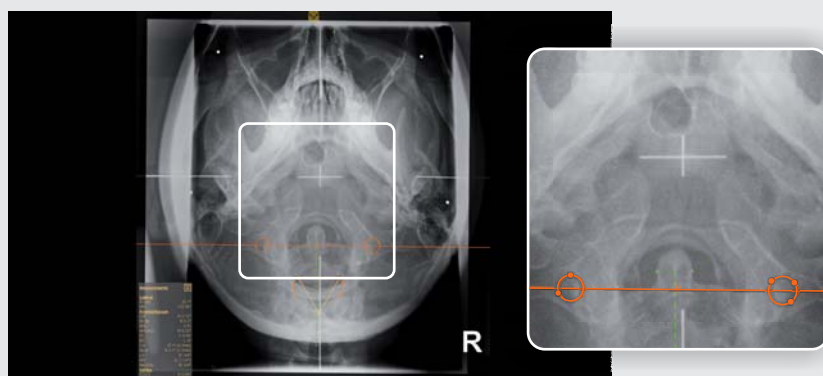
Benefits of Cloud archiving
with *ORCA*®

Minimal expenditure: *ORCA*® does not require investing in expensive infrastructure such as server and data cables.

Scalability: The amount of memory required when using *ORCA*® is determined by the demand.

Long-term security: *ORCA*® archives data on many individual European servers in professional and air-conditioned data centres. Server technology is continuously updated.

Accessibility: *ORCA*® stands out by being highly accessible. Since data is saved with multiple redundancy, *ORCA*® guarantees more continuity than a mere server solution.

Environmentally friendly: *ORCA*® is sustainable – through the optimised use of resources and their distribution.

Location-independent: *ORCA*® guarantees access to archived patient data – worldwide.

Simplicity: *ORCA*® allows easy data access from any computer – from your place of work, from the comfort of your home or from any other computer or tablet PC.

Stress-free: *ORCA*® deals with everything – no need to struggle with loose network cables, removed hard drives or software problems.

Modules & Features

ORCA® – Cloud-based telecommunication solution and data archiving for images, documents and diagnostic evaluations for stationary and mobile applications

Even for state-of-the-art practices and hospitals, the rapidly rising data flood of digital images, diagnostic reports and other documents is becoming increasingly challenging. Current legislation demands safe and long-term storage of patient data which generally requires investing in expensive hardware infrastructure as well as maintenance and corresponding staff costs.

To this end, we developed the *ORCA*® Cloud archiving solution, thus paving the way for cost-effective and safe Cloud-based data archiving in practices and clinics. *ORCA*® offers two application options:

→ ***ORCA***® ***Archive:*** Safe, long-term archiving of patient data with intelligent usage of internal databases

ORCA® *Archive*

→ ***ORCA***® ***Share:*** Communication platform (exchange of images and diagnostic reports) with colleagues and specialists or as an easy way to forward image data to patients (an alternative to creating patient CDs)

ORCA® *Share*

Data is exclusively archived on European servers with the relevant safety certificates.
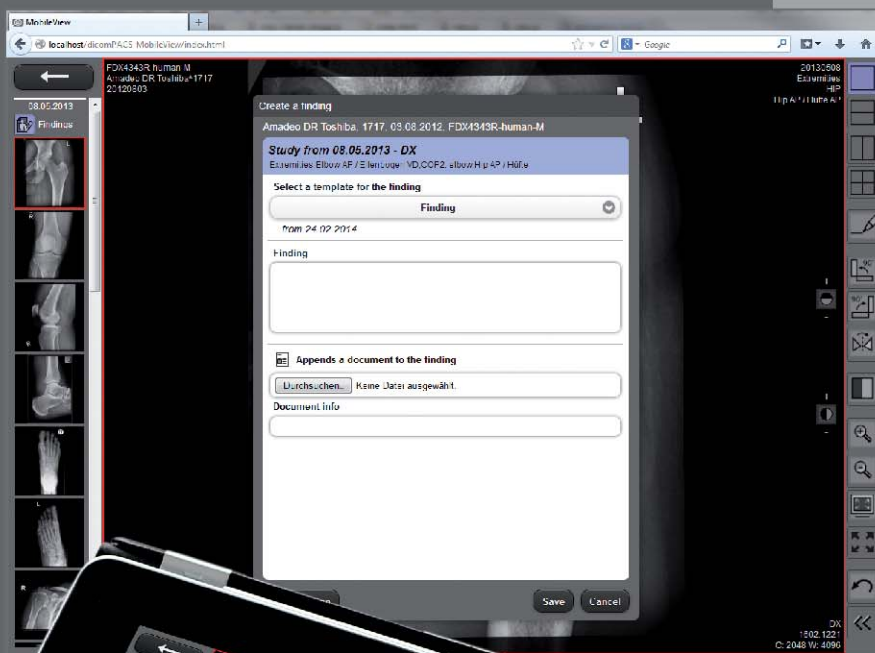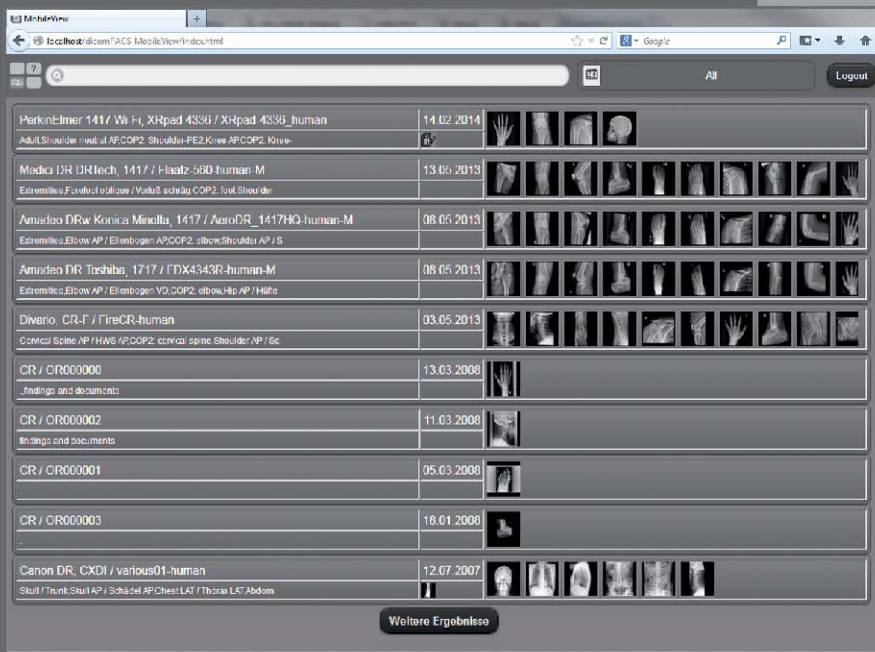
The main advantages at a glance:

- The web-based viewer offers an important range of functions of a professional PACS viewer:

  - Draw annotations
  - Measurements
  - Registration of diagnostic findings
  - Attach documents
  - Draw lines and arrows (multi-coloured)
  - Compare images in different grids
  - Adjust brightness / contrast
  - Flip and rotate images
  - Adjust brightness / contrast
  - Invert, zoom in / out
  - Full screen, fit image
  - PAN
  - Scroll through image series
  - Cine loop for multi frame series and CT / MRI
  - Export images and documents
  - Print images and documents

- High flexibility through compatibility with various internet browsers, including Microsoft Internet Explorer, Mozilla Firefox, Google Chrome, Safari 5, Safari for iPad and Android browser

- Intuitive operation

- Supports the multi-touch operating technology (e.g. zoom in and out with two fingers)

- Supports full screen mode

- Allows accessing the *dicomPACS®* database without any additional modules

- Allows playing series (e.g. ultrasound)

- High loading speed with modern streaming technology

Further information about
dicomPACS® MobileView
is available here:

Modules & Features

Web-based viewer solution *dicomPACS®**MobileView***
for mobile or stationary devices [optional]

The web-based viewer *dicomPACS®MobileView* counts among the
many extension modules of the *dicomPACS®* diagnostic software. **Virtually
browser-independent, it allows viewing image material on mobile
devices also outside a clinic or a practice.** The doctor or nursing staff can
access all image material from the *dicomPACS®* system worldwide via a
network connection.

In addition to mere diagnostic evaluation of images, the
dicomPACS®MobileView viewer **allows diagnostic reports to be
captured and exported**. Documents can be attached and exchanged.
All diagnostic reports of a patient are always displayed. Individual reports
of a patient may be selected for exporting and formatted.

There are many applications. On-call hospital doctors can promptly
make a first diagnostic thanks to *dicomPACS®MobileView*. This saves
the patient a lot of time and additional visits. But also during a ward round,
further treatment can be discussed together with the patient or colleagues
directly at the bedside using a mobile device.

dicomPACS®MobileView can be installed in addition to existing
dicomPACS® diagnostic modules (diagnostic workstations). It is irrelevant
whether the *dicomPACS®MobileView* software is used on a network PC
(pure viewing workstation) or / and on a mobile device. **Worldwide access
to all image material** is available via a network connection, e.g. VPN access
via the internet, of the used mobile device to the central *dicomPACS®* system
in the office or clinic.

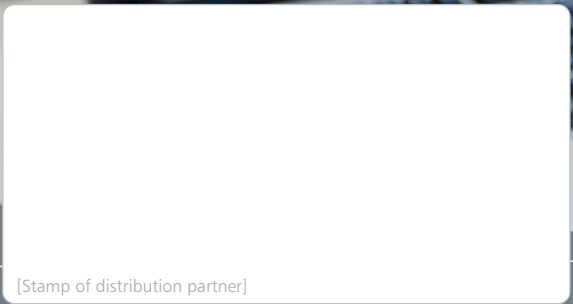# ☻ OR Technology

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Further information about
OR Technology is available: