OR 4Vet
Multimodal diagnostic imaging
that inspires.

dicomPACS®vet

Digital image processing

Management, archiving, and distribution of medical images and documents
(X-ray, CT, ultrasound)

OR Technology

The expert by your side.

Digital

dicomPACS®vet

images and documents

for the small animal and mixed practice & equine clinic

dicomPACS®vet will make your dream of a paperless veterinary practice come true. All images as well as any type of document (e.g. diagnostic reports, records of healing processes, faxes) are stored by *dicomPACS®vet* in a digital patient file and can be accessed immediately with a simple mouse click.

Well designed **archiving and backup solutions guarantee fast access to all data** while observing the highest security standards in accordance with the internationally recognised guidelines for human medicine. In addition, *dicomPACS®vet* can be integrated easily with all the popular practice management systems.

The *dicomPACS®vet* software includes **acquisition, diagnosis, transfer and archiving of image material**. With **AI-supported, automatic measurement functions** (HD, other tools in preparation), the software ensures fast, precise work. *dicomPACS®vet* is continuously **developed in close cooperation with practising vets**. Thus, with this PACS software you always have a easy to operate, well suited to daily diagnosis.

Boasting several thousands installed workstations locally and abroad (as of August 2022), the system has proven itself many times over. *dicomPACS®vet* handles simple image processing requirements as brilliantly as complex radiological networks.

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

OR Technology is your partner for innovative X-ray systems and customised veterinary solutions – **tried and trusted worldwide**

Many excellent reasons

for digital X-ray of OR Technology in the modern medical practice

Fast access
to all digital patient information such as X-ray images or documents in practices and hospitals

Economical
through time and material savings

No loss of information
as a result of misplaced X-ray images or index cards

Space saving
due to digital archiving of all patient data, eliminating the need for archive space and dark rooms

Images may be accessed worldwide
through the web-based Cloud solution *dicomPACS® MobileView – an excellent advantage for equine physicians during purchase examinations*

Easy communication
between different facilities through exchange of information with other IT systems via a network, intranet or internet

Improved diagnosis
due to optimal image quality, the option of computer-assisted image manipulation as well as AI-based measurement tools

Data security
in accordance with European legislation due to an excellent security concept for storing, archiving and distributing of medical data as well as long-term archiving with the in-house solution Cloud Archiving *ORCA®*

For more detailed information
please see: **www.or-technology.com**

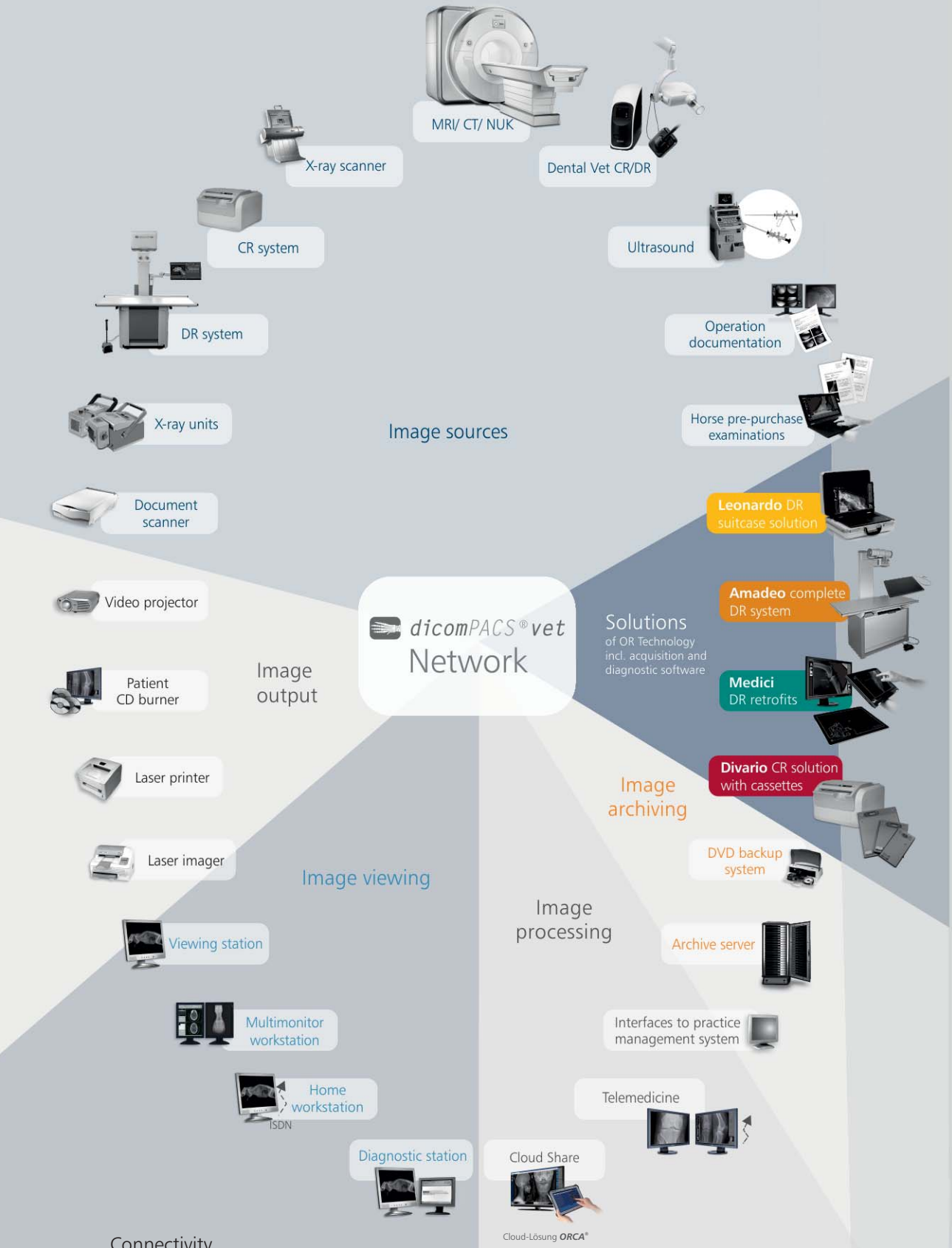
With **several thousand installed image processing systems** nationally and internationally, the system has consistently proved itself (as of 8/2022)

Benefits

of ***dicom**PACS*®***vet*** at one glance

- **Full diagnostic software** for all workstations in your practice (no 'light' versions)
- User friendly and clearly arranged structure, **minimal training requirements** and short familiarisation period
- **Individual adjustment of the user interface** to your field of specialisation and individual requirements
- **Flexible allocation of shortcut keys** for many functions to allow fast work without a mouse
- **Parallel processing** (e.g. option to continue working during a CD burning process)
- **Permanent online availability** of all images and data in the network – no need to store old images on CDs
- "Perfect memory" – re-opening of images with all previous markings and settings incl. zoom and orientation
- **Parallel diagnostic evaluation** of several patients made possible by opening any number of programme windows without loss of speed - depending on the size of the working memory
- **Import of any external documents** such as doctors' letters, faxes or X-ray images – no additional module required
- Installation with **Windows, UNIX, LINUX or Apple Macintosh**
- **Optimal data security**, speed and compatibility by using standardised SQL database technology
- All images and documents are filed in the international **DICOM standard** at all times

For more detailed information
please see: **www.or-technology.com**



Connectivity

The diversity of ***dicom**PACS®**vet***

Structure

Professional work flow with ***dicom**PACS®**vet***

Perfect integration of all imaging devices into your existing computer network is an important condition for a smooth and reliable workflow. Apart from X-ray systems, a wide range of devices including ultrasound, endoscopy, fluoroscopy, CT and MRI systems as well as digital cameras can be connected.

In addition to imaging devices, you can also store documents such as faxes and letters digitally in the digital patient file of your practice management system. **With *dicom**PACS®**vet*, all data is immediately available** and can even be easily forwarded on request.

Continuous documentation and access to data over a period of many years is only possible as a result of optimal integration of all information on your animal patient.

For more detailed information
please see: **www.or-technology.com**

Professional software for detailed and complete documentation of X-ray services for horse pre-purchase examinations

Now with AI

With the help of an algorithm based on Artificial Intelligence, the HD measurement is automatically inserted - subsequent manual correction is possible.

Annotation Buchanan heart measurement for dogs and cats for the detection of heart enlargement, in particular for heart diseases associated with heart enlargement

Value

Excerpt from the scope of services of the image management solution ***dicom**PACS*®

[optional]

- **Report module for X-ray services relating to equine pre-purchase examinations** [currently only available for Germany] - enables the quick compilation of reports by automatically assembling X-ray images. It follows the "X-ray guideline" by the German organisations "Gesellschaft für Pferdemedizin e.V." (German Equine Veterinary Association GEVA) and "Bundestierärztekammer e.V." (Federal association of veterinarians).
  → see page 12 – 15

- **Buchanan's Vertebral Heart Score** - This annotation is a simple and reliable method to determine the size of the heart - it has been desiged specifically for cats and dogs
  → see page 22/23

- **Special filter for the optimisation of bones and soft tissue** - details of interest may be made visible by means of special filter magnifiers
  → see page 22

- **TPLO measuring function** (Tibial Plateau Leveling Osteotomy) - it serves to theoretically optimise the existing slope of the tibial plateau in domestic dogs
  → see page 22/23

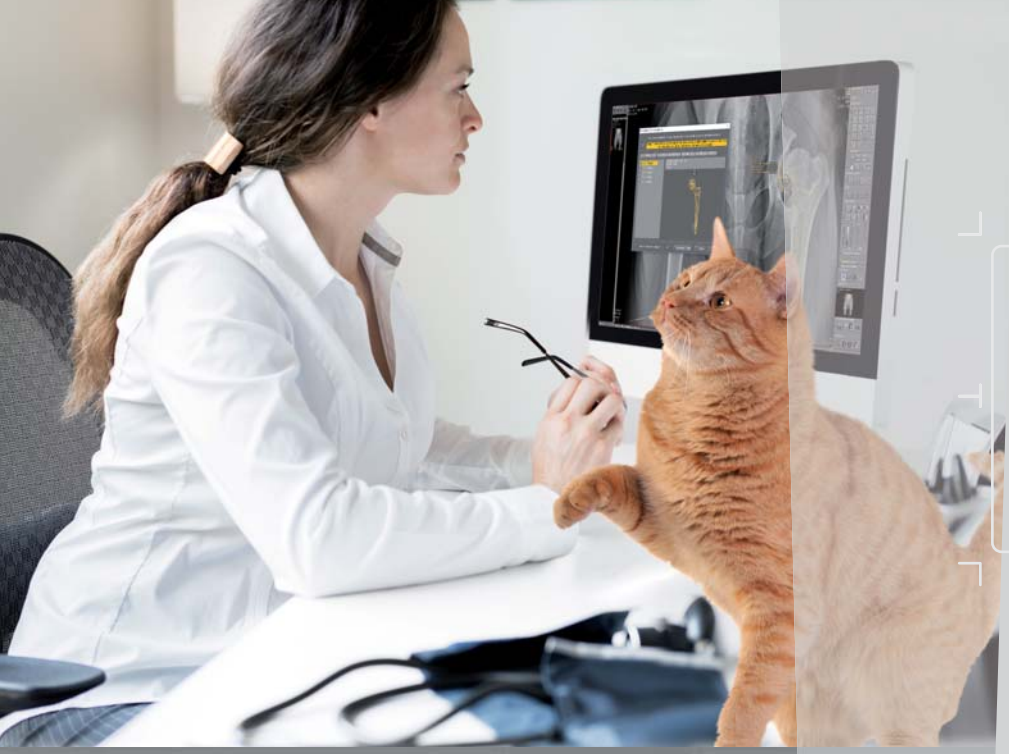
- **TTA measuring tool** (Tibial Tuberosity Advancement) - the TTA measuring technique is used to apply the translated length measurements at the tuberositas tibiae in dogs
  → see page 22/23

- **HD measuring technique for dogs** - *dicomPACS*®*vet* provides a automatic, AI-based tool to guarantee very fast and reliable determination of the Norberg angle, including documentation
  → see page 22/23

- **Modified Maquet Procedure (MMP) -** The MMP is a method of measurement for dogs with a cruciate ligament disorder, in which the distance for the placement of the MMP Wedge is determined.
  → see page 22/23

Further features and modules →

For more detailed information
please see: **www.or-technology.com**



Pre-operative surgery planning with digital prosthesis templates using the prosthesis documentation module

Web-based viewer *dicomPACS® MobileView* offers worldwide and browser-independent viewing of image material even outside an animal or horse clinic.

Necessary tools for professional diagnosis of sectional images, e.g. CT or MRI

Further optional features and modules of the image management solution ***dicom**PACS*®***vet***

- **Prosthesis documentation** – enables the user to plan operations with digital prosthesis templates by one or more manufacturers
  → see page 22/23

- **Measuring the distraction index** – This measuring tool serves to determine the displacement of the femoral head from the joint socket of the hip joint in dogs
  → see page22/23

- **Statistics Module** – enables freely configurable analysis of the complete database

- ***dicom**PACS*®***MobileView*** – **web-based viewer for mobile devices**, such as the iPhone, offers veterinarians and other caregivers mobile freedom inside and outside the clinic and practice and guarantees very fast image accessibility in original quality (DICOM)
  → see page 16/17

- **Cloud archiving & Telemedicine with *ORCA*®** – cost-effective, cloud-based option for long-term archiving of data and images and platform for communication with external partners, such as vets
  → see page 18/19

- **Processing of CT and MRI series** – ***dicom**PACS*®***vet*** includes professional tools such as MPR and MIP to evaluate cross section series
  → see page 20/21

- **Hanging protocols**

- **Special solution for multiple archives**

For more detailed information
please see: **www.or-technology.com**

Advantages

of the software for detailed and complete documentation of X-ray services for horse pre-purchase examinations

Time-saving

The *dicomPACS®vet* pre-purchase examination report module allows very fast and professional preparation of reports on the pre-purchase examination, including perfect layout and documentation in *dicomPACS®vet*.

Easy to follow

dicomPACS®vet guarantees complete implementation of the wording and the structure of diagnostic reports in accordance with the "Guideline for pre-purchase X-ray examinations" by the German "Gesellschaft für Pferdemedizin e.V." and "Bundestierärztekammer e.V.". The texts can be easily edited and included in the report to be compiled.

Reports with images

The required X-ray images, including all modifications such as zoom, measurements and annotations, and are automatically added to the respective diagnosis (e.g. fetlock joint) for documentation in the pre-purchase report. The layout is automatically compiled automatically (page breaks, image positioning etc.)

Safe

The complete report (WYSIWYG principle) is automatically stored with the X-ray images. Of course, these reports are also available for patient CDs. This guarantees that images and reports are always kept together.

Presentation

dicomPACS®vet is a professional marketing tool for referring doctors.

Modules & Features

*dicom*PACS® Pre-purchasing Module

for complete documentation of X-ray services for horse pre-purchase examinations

[optional and currently only available for Germany]

Pre-sale and pre-purchase examinations for horses are always particularly challenging for veterinarians. Such specialised examinations must be

- → carried out swiftly yet very meticulously,
- → documented very well, in great detail and extremely consistently.

After all, the owner of the animal justifiably expects optimal service when it comes to undertaking the examination and presenting the results in a professional and comprehensible fashion. Since administrative work is bothersome yet vital for veterinarians, too, we have developed a report module specifically for X-ray services relating to pre-purchase examinations in cooperation with renowned specialists.

This module enables the quick compilation of reports by automatically assembling X-ray images. It follows the "X-ray guideline" by the German organisations "Gesellschaft für Pferdemedizin e.V." (German Equine Veterinary Association GEVA) and "Bundestierärztekammer e.V." (Federal association of veterinarians).

The software for the preparation of X-ray reports for equine pre-purchase examinations exclusively offers **direct access to the database of comparative images of the German Equine Veterinary Association**, providing you with a standardised basis for comparison to support your evaluation.

For more detailed information
please see: **www.or-technology.com**

Small X-ray suitcase

for mobile use in the stable

The Leonardo DR mini II X-ray suitcase has proven to be an excellent choice for horse pre-purchase examinations. Designed for use in confined spaces as well as in the field, making the X-ray suitcase ideal for modern veterinarians.

Its built-in17" premium notebook with high resolution touchscreenmonitor guarantee excellent image display. The X-ray suitcase has **two large LEDs clearly visible even from a distance of several meters. These LEDs indicate the software status, such as "Ready to expose". In addition, a signal tone sounds when the status changes**. The laptop can easily be removed from its secured location within the case and use in an optimal ergonomic position or as a tablet during presentation.

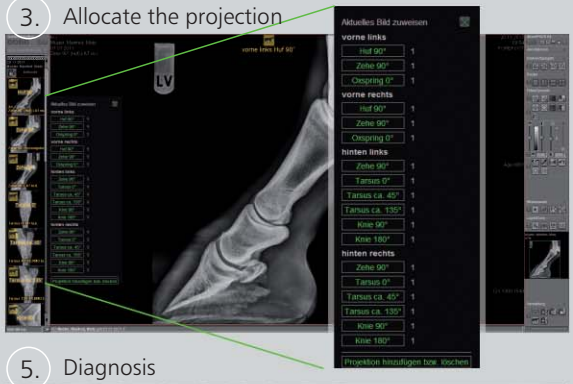
www.or-technology.com/
leonardo-mini-2-video

Workflow for a horse pre-purchase examination

1. Call up the examination

2. Start pre-purchase examination module

3. Allocate the projection

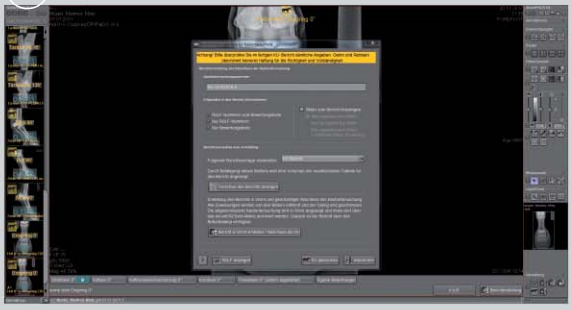


4. Display diagnostic report options

5. Diagnosis

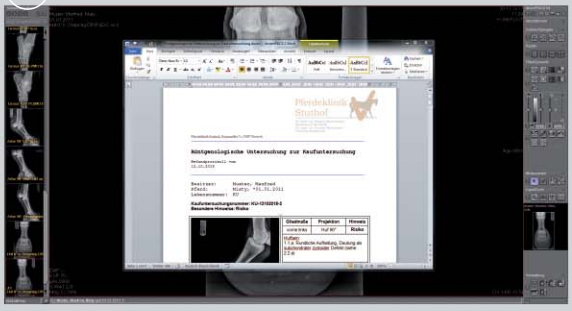
6. Comparison with GEVA reference images

7. Report generation



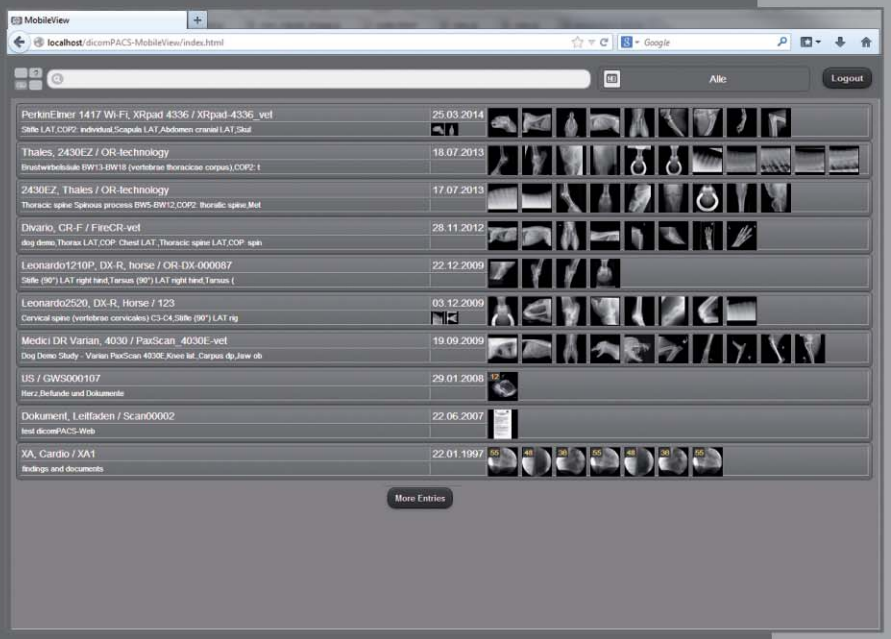
8. Preview of the X-ray report

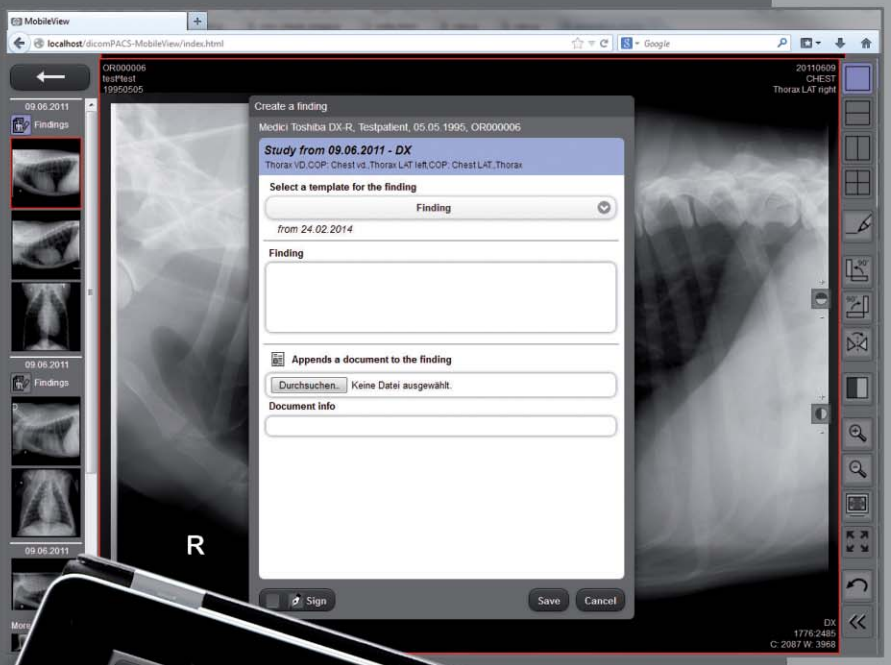
7. Output of the report in Word



8. Printed X-ray report with images and texts

For more detailed information
please see: **www.or-technology.com**





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 the use within 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 ***dicom**PACS*®***MobileView*** is available here:

Modules & Features

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

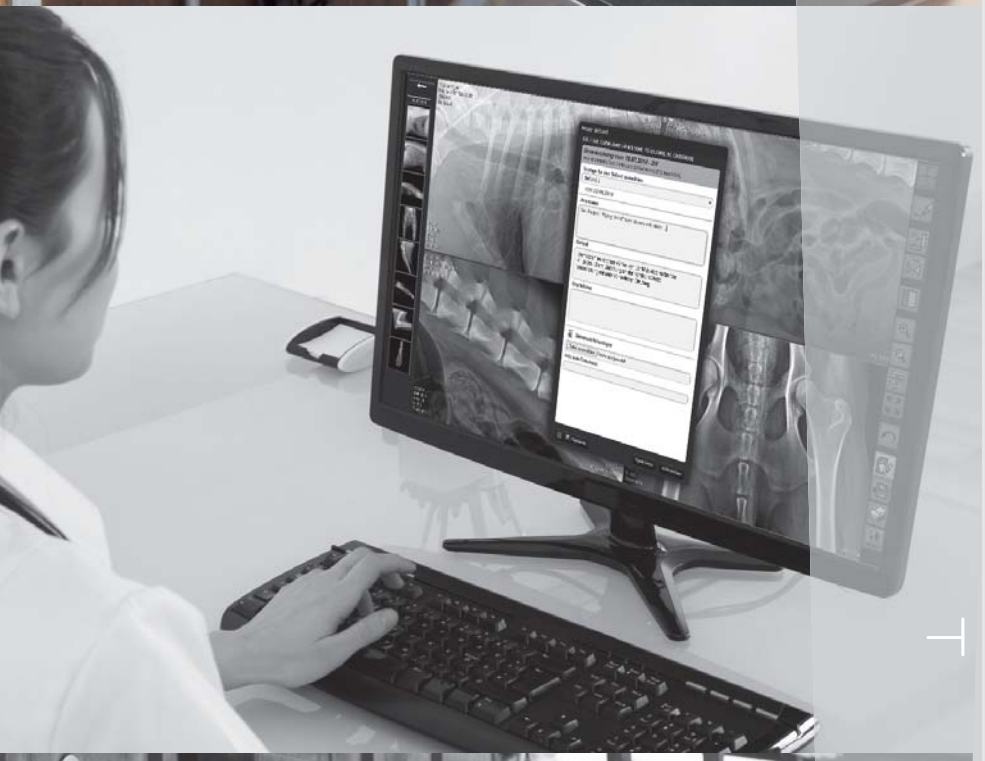
The web-based viewer *dicomPACS®MobileView* counts among the many extension modules of *dicomPACS®vet* diagnostic software. **Virtually browser-independent, it allows the viewing of image material on mobile devices also outside a clinic or a practice.** The vet or the veterinary assistant can access all image material from the *dicomPACS®vet* 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 may be attached and exchanged. All diagnostic reports of a patient are always displayed. Individual diagnostic reports of a patient may be selected for exporting and formatted.

There are many application possibilities, *dicomPACS®MobileView* can be installed in addition to existing *dicomPACS®vet* diagnostic modules (diagnostic workstations). It is irrelevant whether the software is used on a network PC (pure viewing workstation) or / and on 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.

For more detailed information
please see: **www.or-technology.com**



Benefits of Cloud archiving through *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 access to data from any computer – from your workplace, 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 [optional]

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.

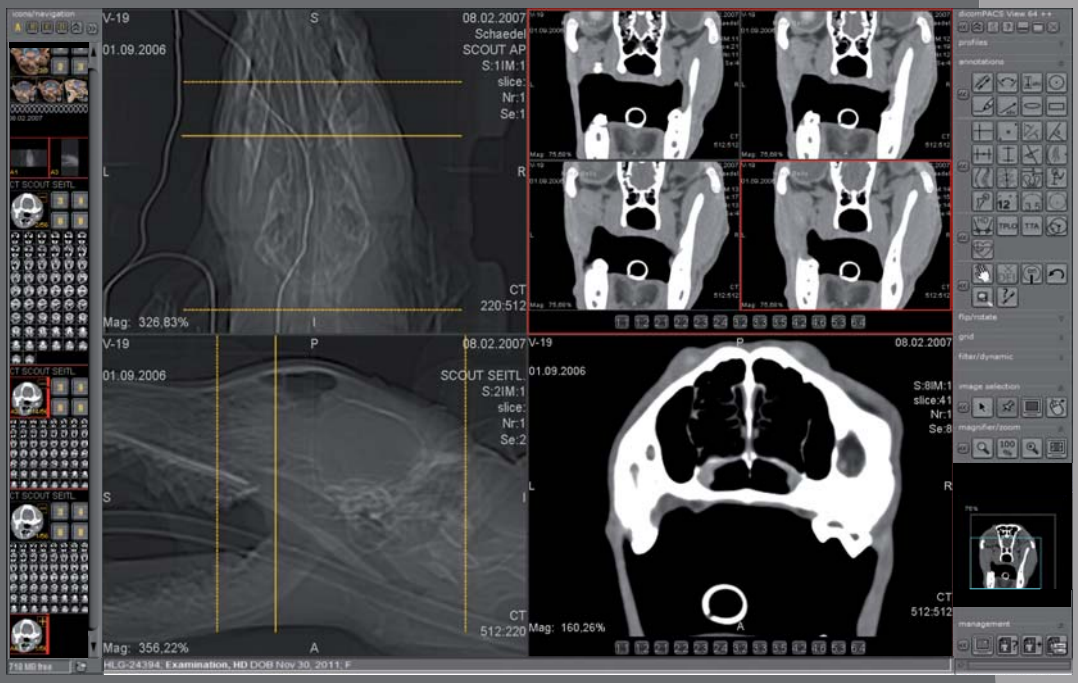
To this end, we developed the *ORCA*® Cloud archiving solution, thus paving the way for cost-effective and safe Cloud-based data archiving in practices and clinics. *ORCA*® offers two application options:

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

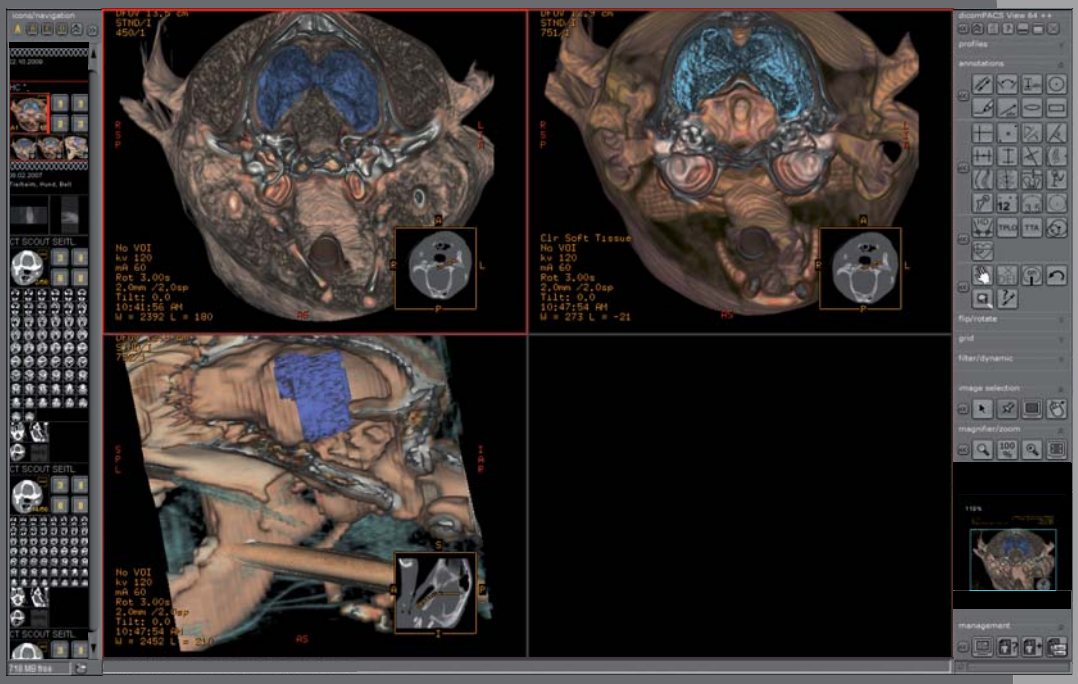
→ ***ORCA*® *Share:*** Communication platform (exchange of images and diagnostic reports) with colleagues and specialists or as an easy way to forward image data to patients (an alternative to creating patient CDs)

Data is archived exclusively on European servers with the relevant safety certificates.

For more detailed information
please see: **www.or-technology.com**



Viewer with sectional images with section lines (cutlines)



Integration of external 3D programs

Viewer with sectional images in MPR representation – a method of two-dimensional image reconstruction

Modules & Features

Administration and diagnosis of image slices

dicomPACS®vet includes all the necessary tools for the professional diagnosis of slices such as CT or MRI. Special tools and functions allow you to work quickly and professionally.

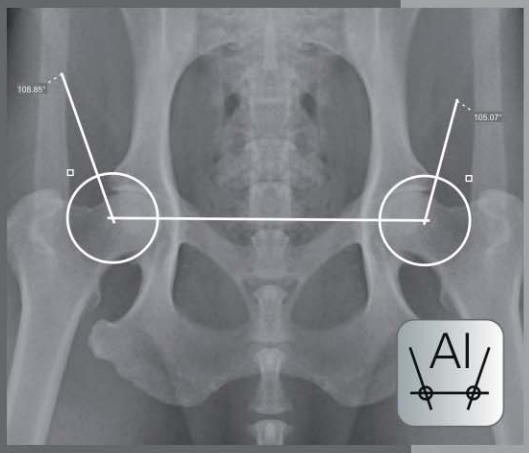
- hanging protocols
- cine loop
- manual scrolling through series
- visualisation of current and delimiting outlines

Extended possibilities are offered to the veterinarian with the following functions:

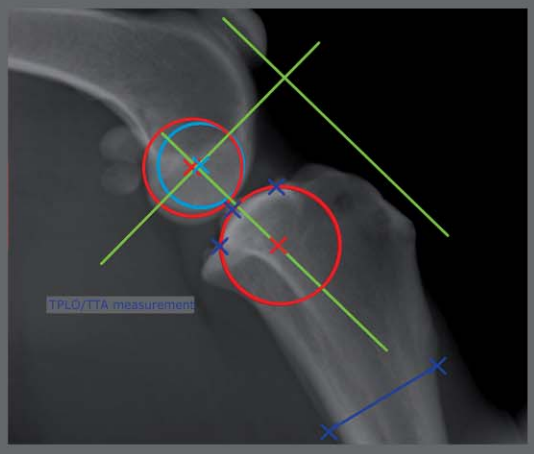
- MPR (Multi-planar Reconstruction)
- MIP (Maximum Intensity Projection)
- 3D cursor

For more detailed information
please see: **www.or-technology.com**

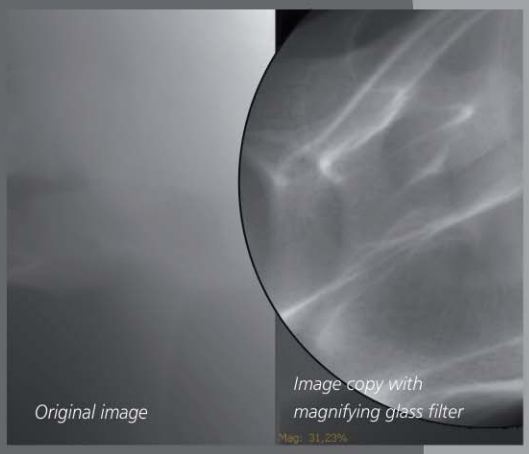
MMP (Modified Maquet Procedure)



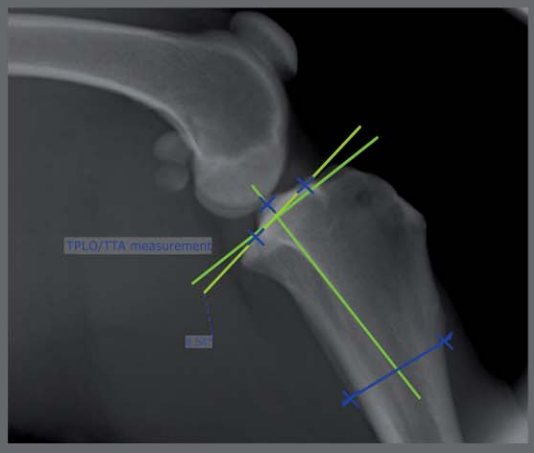
HD measuring technique for dogs



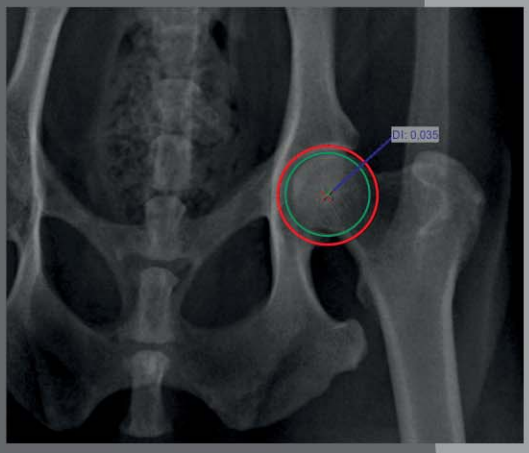
TTA measuring tool



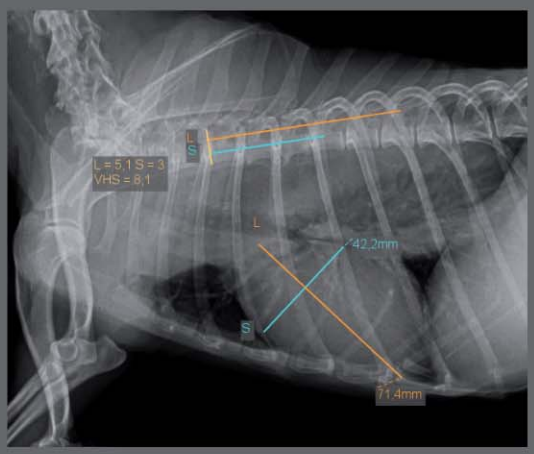
Special filter for the optimisation of bones and soft tissue



TPLO measuring tool



Measuring the distraction index



Buchanan's Vertebral Heart Score

Integrated prosthesis documentation module

Modules & Features

Special functions for digital X-ray imaging

Digital X-ray images have the advantage that exact measurements can be taken at the monitor and the image quality can be improved by a number of manipulations. *dicomPACS®vet* now offers some special functions.

Modified Maquet Procedure (MMP)
The MMP (Modified Maquet Procedure) is a method of measurement for dogs with a cruciate ligament disorder, in which the distance for the placement of the MMP Wedge is determined.

Pre-operative planning with the prosthesis documentation module
This module allows the user to plan and document an operation. After activating this function, the active image is displayed in its original film-identical size. The prosthesis template is displayed in the image as an annotation, or the existing prosthesis template films are overlaid on the monitor.

TTA (Tibial Tuberosity Advancement) measuring tool
The TTA measuring technique is used to apply the translated length measurements at the tuberositas tibiae in dogs.

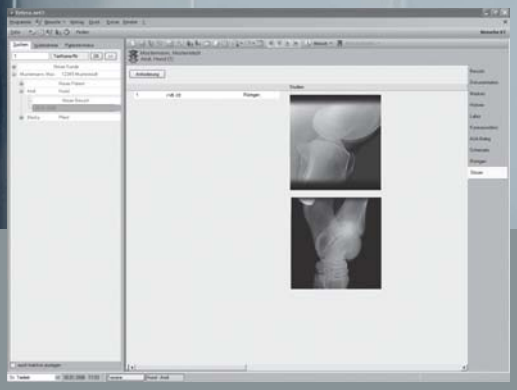
Automated HD measurement for dogs with AI technology
To ensure a very fast and reliable determination including a documentation of the Norberg angle, *dicomPACS®vet* provides a special tool based on artificial intelligence. The HD measurement remains editable after automatic insertion. Thus, the centre of the femoral head, the circle for determining the joint margin and the Norberg angle can be corrected manually.

TPLO (Tibial Plateau Leveling Osteotomy) measuring tool
It serves to theoretically optimise the existing slope of the tibial plateau in domestic dogs.

Measuring the distraction index
This measuring tool serves to determine the displacement of the femoral head from the joint socket of the hip joint in dogs.

Buchanan's Vertebral Heart Score
This annotation is a simple and reliable method to determine the size of the heart. It has been designed specifically for cats and dogs. The height and width of the heart are put into relation to the individual animal's vertebral body width. Therefore, racial distinctions are brought to bear on the examinations results.

For more detailed information
please see: **www.or-technology.com**



Connection -
example Vetera

Connection -
example AVImark

Integration

Seamless integration with the administration software

Only an optimal interface guarantees perfect networking of all systems such as the integration of the image archive with the specific administration software. With a single mouse click you have immediate access to patient data to prepare an imaging request or to load archived images.

dicomPACS®vet is well designed, sophisticated and flexible. **It can be integrated easily with any veterinary administration programme.**

Basic functions

The way we configure an interface in detail so that everything works perfectly depends on the existing administration system. We would like to present three examples of frequently used functions below:

Example 1: Patient data is made directly available from the index card for the examination instruction for e.g. a digital X-ray, MRI or similar.

Example 2: The examination instruction is allocated to the digital patient register of that particular patient, where it is stored and archived.

Example 3: The archived data - X-rays or documents - is called up directly from the patient register. You can proceed as you wish, directly choose a particular image or document, or decide on a specific selection, e.g. the last week's exposures or just the ultrasound exposures of a patient.

However you want to proceed, you can be sure that it will work, because we have already successfully integrated *dicomPACS®vet* into many administration systems.

For more detailed information
please see: **www.or-technology.com**

Version OR000133-007_12_2025

OR 4Vet

Multimodal diagnostic imaging
that inspires.

Everything from a single source: PACS | X-ray | Ultrasound | CT

OR 4Vet. Because image diagnostics only needs one partner.

Headquarters: OR Technology (Oehm und Rehbein GmbH), Neptunallee 7c,
18057 Rostock, Germany, Tel. +49 381 36 600 500, Fax +49 381 36 600 555
www.or-technology.com, info@or-technology.com

OR Technology UK: Celtic SMR Ltd., Frederick House, Hayston View, Johnston
Haverfordwest, Pembrokeshire SA62 3AQ, United Kingdom
www.celticsmr.co.uk, sales@celticsmr.co.uk

OR Technology Irland: VetEquip Ltd., Unit C1, Clane Business Park, College Road, Clane,
Co. Kildare, W91 VK84, Ireland, www.vetequip.ie, pfxtkavanagh@gmail.com

Info hotline: +49 381 36 600 600

www.or4vet.com