Dicompass

Product
CATALOG

PRODUCT LINE
DICOMPASS

Explore the world of image documentation in the best hands

APPROVED MDR

DICOMPASS CLOUD

DICOMPASS GATEWAY

DICOMPASS CAMERA 2

DICOMPASS GATEWAY DIGITIZATION

3RD PARTY SYSTEMS INTEGRATED INTO DICOMPASS GATEWAY

Artificial Intelligence

mDEX exchange network

CE 2265

MEDICAL DEVICES
ISO
ISO 13485:2016
QUALITY MANAGEMENT

MADE IN CZECH REPUBLIC

APPROVED MDR

Dicompass Gateway
use cases

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DICOMPASS
CLOUD

Easy access to your data anywhere

Cloud PACS & DICOM Web Viewer

The Dicompass Cloud service is built on the complex Dicompass Gateway solution and is suitable for anyone who needs to solve the accessibility of an archive, viewer or stored data from anywhere or wants to reduce the cost of maintenance, recovery and upgrade of the necessary HW for local installation of PACS and DICOM viewer.

The fastest, simplest and most cost-effective solution for storing and viewing DICOM data.

All data is archived in DICOM format in the medical-certified Microsoft Azure cloud.

Dicompass CLOUD communicates with all current standards like DICOM, HL7 and XDS.

Share medical image documentation via **QR code** with a link or send to another Health Care Organisation via the **mDEX** exchange network.

A large scope for the use of artificial intelligence by various companies to accelerate diagnostics.

Outstanding freedom

Open access to data
With cloud services, you can easily access and exchange your data around the world. With our Dicompass CLOUD solution, you enjoy a great experience of independence. It's not just about exchanging DICOM data, but thanks to the built-in tools you can easily perform online consultations, request for a second opinion or online presentations

Connection modality independence
Dicompass CLOUD allows all digital modalities to be connected into a cloud storage system. Modality data is easily transferred encrypted via a software cloud connector running on a regular PC or via a dedicated hardware solution. Images from other sources (CDs, memory cards, USB flash drive, etc.) can also be easily uploaded to the PACS cloud system.

Cost efficiency directing
With cloud services, you can pay only for what you actually need. You will not have to pay extra costs for hardware maintenance, IT staff and software updates.

More information

DICOMPASS GATEWAY

Complex solution for working with DICOM

Dicompass Gateway is a state-of-the-art system that covers the requirements for archiving, digitizing, sharing, distributing and viewing DICOM image data.

The Dicompass medical device is certified according to (EU) 2017/745 - MDR and classified as Class IIb.

Its entirely revolutionary feature is the integration of the PACS archive, the DICOM web viewer and other products into one environment. This makes it very easy to integrate all products to transfer information and data between them. The user can works with several products or modules in one environment. With the appropriate rights assigned, they can, for example, edit patient data directly from the viewer environment, or move images or series of images to another patient.

The uniform environment for clinical and diagnostic imaging and data management makes all tasks very fast and efficient. User rights management and audit logs ensure security and visibility of all changes.

Newly, it is available to use the mDEX exchange network for fast, stable, secure receiving and sending of medical image documentation between healthcare organizations.

More information

DICOMPASS GATEWAY
WEBVIEWER

Web-based DICOM viewer

Certified multiplatform DICOM viewer for displaying all DICOM medical documentation.

Zero-footprint and install-free technology allows safe and easy use.

Clinical License:
Basic license with tools for working with image documentation. A wide range of user settings and preset tools, the ability to import and export image documentation and much more.

Diagnostic license:
A license with more advanced tools and multi-monitor support. Use of 3D rendering to work with 3D objects - MPR, MIP, MinIP, SSD, VRT, curved MPR view or work with fusions. Ability to create Structure Reports with automatic insertion of finding descriptions using finding shortcuts.

DWShare - Online consultation:
Online consultations take place between internal users or with external users in a secure environment. External users have only limited access and are separated from other data. All operations performed are smooth, fast and in full quality even when using a slow internet connection.

QRShare - Documentation sharing:
Easily share image documentation using a shared link and QR code for external doctors and patients. A printable report with link and QR code can be emailed or printed using a user predefined page layout.

- Multiplatform DICOM viewer
- Install-free technology
- Central user management
- Fully customizable environment
- Online consultation tools
- Data sharing via QR code
- Integration of the mDEX

Full-featured PACS system

Provides storage and distribution of image data with support for all commonly used SOP classes and more. Modular system architecture allows easy addition of new features and functions.

DICOMPASS GATEWAY
ARCHIVE

- **Stable**
- **Reliable**
- **Secure**
- **Modular**

Modules

Integration – connecting Dicompass Gateway with various HIS using HL7

Prefetch – fully automatic prefetching of image data based on HL7 messages

Autorouting – fully automatic redistribution of image data

Access control – control data access according to user rights

AD/LDAP – user management by AD/LDAP rights

Data compression – save storage space

Auditing – auditing of all actions

Application Prefetching – used for cooperation with other applications or viewers other than Dicompass WebViewer

Replication – allows "redundant" mode using two servers (primary and secondary). In case of failure of one of the servers, recovery is fast and very easy
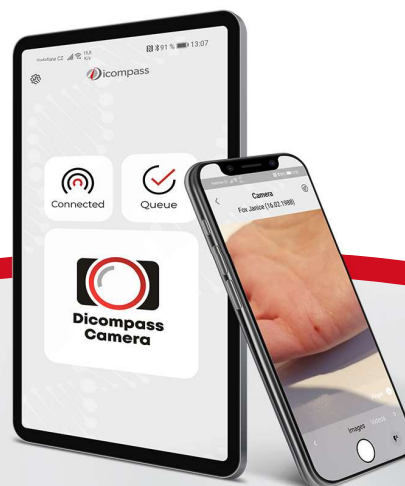
Categorization – allows you to "tag" any data with user-defined labels, which can be used to make it easier to search for a certain type of examination, e.g. by diagnosis

More information

DICOMPASS
CAMERA 2

Snap images and video to DICOM

Capture an image with your Android or iOS phone, tablet or camera directly to DICOM format and send it online to CloudPACS or to another PACS.

Dicompass Camera 2 is a great tool for anyone who needs to keep an eye on any visual information about a patient, e.g. skin findings in dermatology, decubitus healing in nursing, pre and post-operative records in plastic surgery, microscopic image or macro image in pathology, etc.

Working with this application is very easy. We offer multiple options for entering patient data. Choose from a worklist or scan a QR code or regular barcode with the patient ID. Then just snap a photo or video, which is automatically sent to the Dicompass Cloud or the hospital's PACS Archive. Editing and post-processing of the image data (selection, removal, cropping, editing) can be done before sending. The doctor can access the captured records via the DICOM viewer, i.e. in the same way as radiological examinations.

Patient selection	Full support for Modality Worklist (MWL) Manual ID entry with autocomplete tool QR or barcode scanning
Location tools	Body localization Add tags to study
Data format	DICOM image (JPEG/Little Endian) DICOM video (H.264)
Interesting features and tools	Image cropping, video editing Light or dark application mode Import data from local storage
Storage options	PACS Archive Cloud storage

Available on iOS & Android platforms

More information

DICOMPASS GATEWAY
DIGITIZATION

Record videos and capture images to DICOM

Dicompass Gateway Digitization is an extension module of the complex Dicompas Gateway solution, which is used for recording images and videos of the examination procedure. This data is then stored in DICOM format in the PACS Archive.

It is most often used as a digitizing station that processes image documentation of endoscopic and laparoscopic examinations. However, it can be used for all areas that use video output devices for patient examination, e.g. colposcopes, microscopes, etc. The advantage of our software is that it doesn't require a specific PC and allows you to provide it directly from your side, which reduces the cost of acquisition.

Taking a picture/video/mark is very simple for the physician. We support control directly from the camera head of the device. Alternatively, it can also be handled via pedal control, touch screen monitor or tablet.

Support for video conferencing services, JPEG and H.264/H.265 support and direct storage on USB flash drive.

Unique system features:

Timeshift - back to the past:
Go back to the time of recording. Unique option in case of forgotten recording. The system automatically records everything that happens during the examination in the background, so in urgent cases or unexpected situations it is possible to go **back in time** and retrieve the required section for presentations at conferences or for educational purposes.

Marks - marks in the video:
Mark the desired location in the video at any part of the recording using the camera head, foot switch or via the control monitor or tablet. The digitizing system also automatically creates marks in the video when a photo is taken. These locations are then marked in the video and can be described for better and clearer searches in the future. The marks can be changed and edited at any time. During video playback, it is then easy to move between the markers and find the desired section without having to go back and forth in the video.

Tags - data categorization:
Each image or video can be labeled to help you to find the examination that you need even faster. The user-defined label form for the labeling of the record can be defined by the user and can be used within the digitization process as well as after saving directly in the integrated web-based DICOM viewer.

WebViewer & PACS - Unified user environment:
The digitization system can be integrated directly into the hospital's DICOM web viewer, connected directly to the PACS repository, and therefore the system can be used for both digitization and display of patient data for the required procedure or examination. No need to switch between multiple systems. For working comfort, only one environment is used.

Lorem ipsum

More information

Videoconference
Present and consult:
Use of two-way annotated streaming using microphones and headsets. Easily share the live stream within the hospital network or cloud, including audio. The receiving side does not require any special software installation - everything works within a web browser.

Stream video
Video transmission to outside the operating room:
Give your colleagues a look behind the scenes of your work. Easily share a live video stream within the hospital network, including audio. The receiving side does not require any special software installation and simply plays the shared link in your PC's media player.

Video conference calls and live video stream

The ability to share data via external link including QR

DICOM web viewer integration

Unified user environment

Share data
Sharing image documentation
All records captured by the Dicompass Gateway Digitization system can be shared in many ways. You can use connection to exchange networks (e.g. mDEX, ePACS, ReDiMed) or share records using a link for external physician/patient access via QR code.

Easy editing of records including tags

DICOMPASS
STREAM & SHARE

Record, share and stream in one environment

Enter the world of simplicity and ease of work in operating rooms or ambulances. With the **Stream & Share** license of the integrated video conferencing and video management solution, you'll put the final piece of the puzzle together for complex image management.

Connecting multiple modalities for synchronous recording

Certified Software and Hardware Solutions

High quality 4K footage for presentation purposes

Continuous recording TIMESHIFT

Integrated videomanagement

Videomanagement
video signal distribution:
Display multiple screens on one or more monitors with easy switching. Possibility to turn on/off individual preview streams outside the operating room.

The user interface can be predefined according to customer preferences. Of course, the digitization and all unique system functions (Timeshift, Marks, Tags) can be controlled in a single Dicompass Gateway viewer environment.

Dicompass

ARTIFICIAL INTELLIGENCE

In the service of the medical team!

Artificial intelligence for radiology in your DICOM viewer

We offer simple and fast testing of Artificial Intelligence for automatic description or grading of radiological examinations in your specialist clinics and medical facilities.

Fully integrated solution

Certified AI

Fast image analysis

Intuitive user experience

Effective diagnostic support

THE FUTURE OF MEDICINE

Physicians will have access to a set of artificial intelligence tools integrated directly into their work environment, allowing them to optimize patient care through predictive and personalized medicine. Artificial intelligence helps automate specialized tasks and allows radiologists to focus on higher priority diagnostic studies.

At the moment, several artificial intelligences are ready to describe lung X-rays, CT scans, pulmonary nodule detection and more. Artificial intelligence can help physicians correctly identify both positive and negative findings as well as false positives and negatives. This helps in proper diagnosis and saves not only the time of patients and doctors but also the finances of the healthcare system.
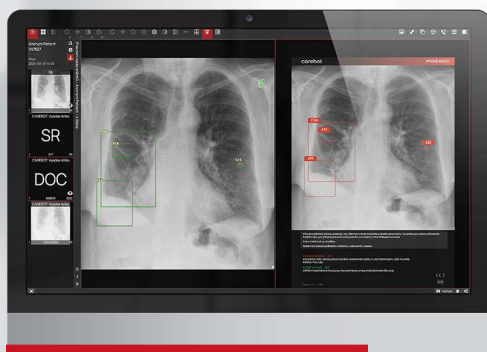
carebot

Carebot is an advanced AI tool developed in collaboration with dozens of radiologists to ensure ease of use. It offers exceptional accuracy in detecting even small pathologies, with all data securely anonymized within the healthcare facility. It is available in multiple languages, making it accessible to healthcare professionals worldwide.

Detects the following findings with high accuracy:

- pulmonary lesion
- consolidation
- pneumothorax
- pleural effusion
- enlarged cardiac shadow
- atelectasis
- subcutaneous emphysema

For each X-ray image, a text evaluation is automatically generated, which can be used as the basis for a medical report.

All the images that Carebot analyses are always already **anonymised on the hospital side**, so patient data never leaves the secure, closed network of the healthcare facility.

carebot.com

HERA-MI
Our focus
Your decision

Breast-SlimView®

This AI serves as clinical decision support for 2D and 3D mammography. Breast-SlimView® offers an innovative and breakthrough reading support where only relevant findings are displayed. This allows radiologists to move away from areas of no interest and view only the potentially suspicious ones.

To support diagnostics, the following software tools are available within this AI:

- Replacement of uninterested areas with synthetic tissue, leaving only the suspected areas
- Optional evaluation of breast density using the BI-RADS scale, also known as Breast Density Evaluation
- Creation of sub-synthetic images for breast tomosynthesis

hera-mi.com

Experience quick and easy cooperation with various artificial intelligences thanks to full integration into the Dicompass product line

DICOMPASSAI

RAYSCAPE

Rayscape CXR

Thanks to artificial intelligence, Rayscape can recognize 148 findings in chest X-rays and group them into 17 different pathological classes. It improves patient care by providing physicians with a quick way to classify and prioritize each case.

- 148 findings in 17 different pathological classes
- locates groups of pathologies on the X-ray image
- generates additional images with subtraction and suppression of bone tissue
- automatically calculates the cardiothoracic index
- identifies SARS-CoV-2 related pathologies and assigns a specific score to each of them
- prioritizes patients according to the identified pathologies

Class list

Lung Opacity	Edema	Hilar/Mediastinal Disease	Pleural Other
Atelectasis	Diaphragmatic Disfunction	Interstitial Disease	Pneumothorax
Abnormal cardiac silhouette	Emphysema	Lung Lesion	Cifo-scoliosis
Consolidation	Fracture	Pleural Effusion	Support Devices
Tuberculosis			

Rayscape Lung CT

The Rayscape system helps to identify at-risk patients and alerts physicians to the presence of possible pathological lesions during regular screenings. It also enables seamless process optimization from preventive monitoring and early detection, emergency care to monitoring the development of changes over time and response to treatment.
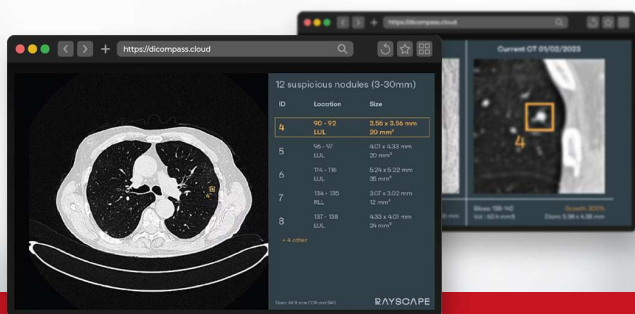
- identifies pulmonary nodules with a diameter of 3-30 mm
- highlights the presence of nodules on each slice and shows their section and lobar location
- automatically measures the diameter and volume of identified nodules
- compares the characteristics of pulmonary nodules between different examinations and produces a final report with nodule evolution
- identifies lesions caused by SARS-CoV-2 infection
- displays the degree of lung damage following SARS-CoV-2

Dicompass

Milvue

SmartUrgences®

Artificial intelligence is trained to detect abnormalities in all anatomical regions except those listed as contraindications. It mainly covers the appendicular bones, chest and pelvis. Its primary focus is for everyday use in the emergency department.

It includes the following pathologies, osteoarticular and pulmonary:

- Fracture
- Dislocation
- Joint effusion
- Pneumothorax
- Lung opacity
- Pleural effusion
- Pulmonary nodules
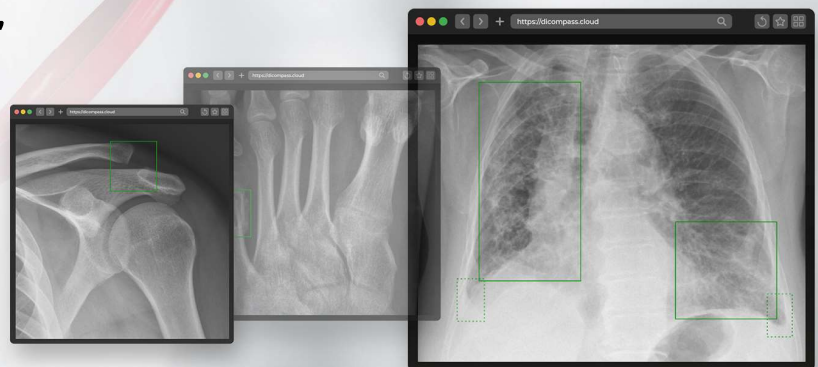
SmartXpert®

It opens up a new area for efficient and reliable preparation of measurements in musculoskeletal X-rays. With full integration into our product, these measurements can be further processed. Therefore, the artificial intelligence prepares the measurements and the physician can quickly and easily adjust these measurements if necessary.

Types of measurements

- Gonometry
- Coxometry
- Pelvic tilt
- Hip dysplasia
- Hallux varus and hallux valgus
- Angles and localisations
- Djian-Annonier angle
- CSA angle
- Cobb angle
- Classification of scoliosis

Localization

- Spine
- Pelvis
- Knee
- Leg
- Foot
- Shoulder

milvue.com

mDEX
MEDICAL DATA EXCHANGE

Full integration of the mDEX exchange network

As part of the new launch of the **mDEX** service (launched 1 March 2023) for secure sharing of medical image documentation, this service has been fully integrated into the Dicompass Gateway WebViewer system.

With mDEX you can easily and quickly send anything to users of this network!!!

- Secure data transfer
- Interoperability
- Speed and availability
- Low cost

Security of sending data

Dual encryption - transmission (TLS 1.3) + peer to peer (AES)

- even the server administrator has no way to retrieve the data

- stream processing, nothing is stored (not even temporary files)

Multi-factor authentication

- transmission via Relay, agreement of encryption keys via control servers

- certificates including automatic recovery for communication with relay and control servers

The recipient has the option to enable senders and types of transmissions

- blacklist/whitelist policy

No opened incoming ports

Interoperabilita

Transfer profiles

- e.g. DICOM, files, reports... - definition of custom profiles

- custom operations on the recipient side: DicomStore, Folder, RunProcess, GroovyProcessor, LogAndDiscard

DICOM transfers

- synchronous and asynchronous transfer capability

API for easy connection of third-party applications

- sending: HTTP API - e.g. curl tool, easy to implement

- receiving: scripted object or transfer processing

Speed and high availability

Transfer data compression

- 60% less data, about 5x faster than GZIP

Load balancing relay

- easy scalability

- geographic prioritization of sessions - continent/country

Parallelism of transmission

- one sender can send to the same recipient in multiple threads

- for DICOM transmissions it is also possible to parallelize the transmission of a given association

Decentralized directory of network subscribers

Low cost

Requirements for relay

- any OS, possibility to run JAVA, outgoing HTTPS port to the Internet

- minimum RAM and HDD requirements (stream processing)

DICOM SR PR
PNG MP4
JPG TIFF Obrazová data Klinické zprávy
PDF Reporty
Laboratorní výsledky
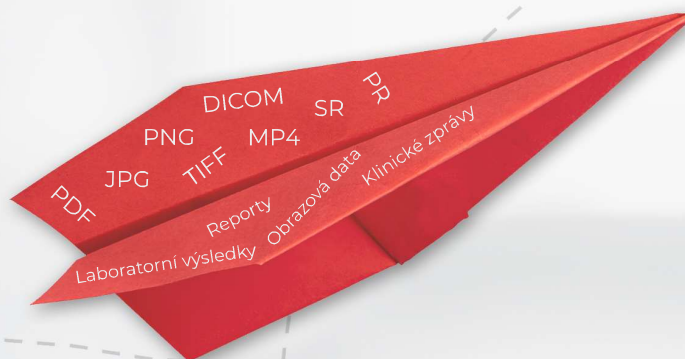
More information

YOUR
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