User Manual

PACSonWEB

3.3.800

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Dobco Medical Systems NV, Nachtegaalstraat 6 Box W05, 9240 Zele, Belgium

In this product, user settings and functionalities are determined by configuration options and security settings.

This product can be modified to support the workflows and methods that are used in your hospital.

As a result, the functionalities and screen settings that are described in this document might differ from what you can do and from what you see on your screen. The settings can also differ from department to department.

Statement on gender-neutral terminology

For reasons of legibility and clarity, gender-neutral terminology is used, e.g. User. Corresponding terms apply equally to all sexes.

Document history

Last update of this document: 07/12/2023

https://my.dedalusportal.com

User Manual PACSonWEB

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💡 **Tip:**

Thank you for using PACSonWEB. The goal of this user manual is to help you familiarize yourself with the way the system works and with its operating instructions in the most efficient manner possible. Please first read the general conditions of use (refer to page 11) before using PACSonWEB.
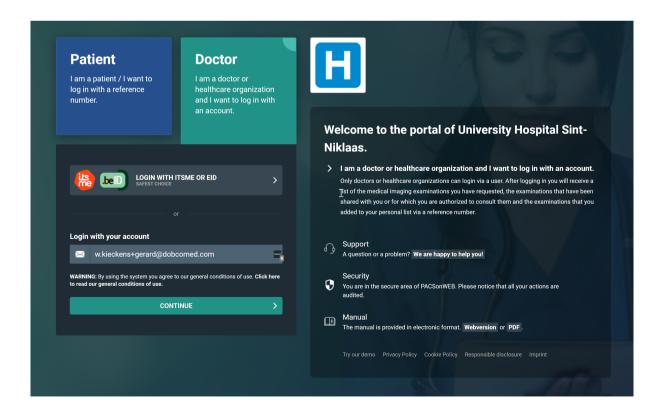
📝 **Note:**

This manual applies to all versions of PACSonWEB with the same revision date of the manual.
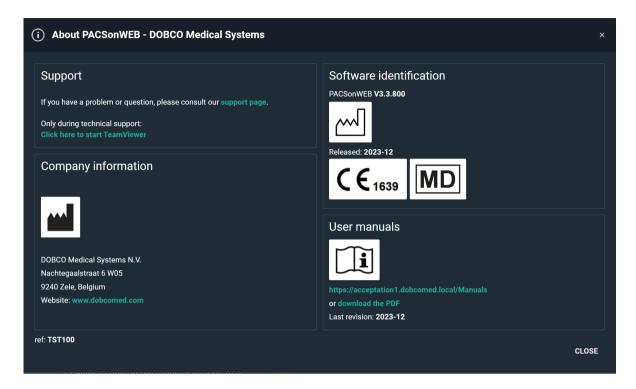
💡 **Tip:**

The PACSonWEB viewer complies with European Directive 93/42/EEC concerning medical devices and is certified as a CE class IIa device.

LABEL

About PACSonWEB - DOBCO Medical Systems ✕

Support

If you have a problem or question, please consult our support page.

Only during technical support:
Click here to start TeamViewer

Company information

DOBCO Medical Systems N.V.
Nachtegaalstraat 6 W05
9240 Zele, Belgium
Website: www.dobcomed.com

Software identification

PACSonWEB **V3.3.800**

Released: **2023-12**

CE 1639   MD

User manuals

https://acceptation1.dobcomed.local/Manuals
or download the PDF
Last revision: **2023-12**

ref: **TST100**

CLOSE

BROWSER SUPPORT

These browsers are supported and have been validated for diagnostic use:

- Google Chrome (version 69.0 - 119.0)

🚫 **Restriction:**

Performance issue in version 104

- Microsoft Edge (version 79.0 - 119.0)

🚫 **Restriction:**

Performance issue in version 104

These browsers are supported:

- Firefox (version 93.0 - 120.0);
- Safari macOS (version 15.0 - 17.1)
- Safari iOS (version 15.0 - 17.1)

These browsers allow access to the platform but are not recommended.

When used, it is indicated that some features may be disabled or may perform slowly.

- Google Chrome (version 66.0 - 68.x)
- Microsoft Edge (version 36.0 - 78.x)
- Safari macOS (version 12.1 - 14.x)
- Safari iOS (version 11.3 - 14.x)
- Firefox (version 57.0 - 92.x)
- Internet Explorer (version 11.0 - 11.x)

INTENDED USE

Web based PACS software tool including image enhancement features (window levelling, presets, inversion, MIP and MPR), spatial locator and measuring functions for the area of diagnostic radiology.

INDICATIONS FOR USE

As a distribution medium, PACSonWEB is used to make medical images and reports, made at a hospital or private radiologist, available to the requesting physician over the internet.

The images are also available for reference to the patient. It is the decision of the radiology department if the report is also available to the patient or not.

Using the related reference codes, owned by the patient, the exam and report can easily be consulted by any physician that has a PACSonWEB account.

As a diagnostic tool, PACSonWEB can be used by a radiologist to visualize and enhance available images and perform measurements in order to make a diagnosis. The report can be recorded within PACSonWEB.

WARNINGS

⚠️ **Important!**

It is the responsibility of the user to assure

- that the monitor quality, ambient light and used image compression corresponds to the intended clinical usage!

- that PACSonWEB is used on a supported browser

- browser compatibility in case of an upgrade of the browser or the operating system of the device, used for running PACSonWEB

- a sufficiently performing internet connection (for viewing: 3G or higher, 0.5 Mb /sec or higher; for downloading: 4G or higher, 15 Mb/sec or higher)

- a sufficiently performing network connection (100 Mb LAN or higher, Wi-Fi 802.11 g or higher)

DISCLAIMER

Dobco Medical Systems is not liable for malfunctions and damage stemming from installation, configuration, relocation, remodeling, maintenance and repair performed by parties other than Dobco Medical Systems or authorised personnel of Dobco Medical Systems.

Dobco Medical Systems is not liable for malfunctions and damage to Dobco Medical Systems products that are/is attributable to products of other manufacturers that were not supplied by Dobco Medical Systems.

Dobco Medical Systems is not liable for malfunctions and damage due to non-compliance with the precautionary measures and operational methods specified in this user manual.

Dobco Medical Systems is not liable for malfunctions and damage stemming from use of the product under ambient conditions which are outside the scope of the terms of use specified in this user manual, such as power supply, installation environment, etc.

TRADEMARK

'PACSonWEB' is a registered trademark of Dobco Medical Systems.

WARNINGS

Consult the PACSonWEB operator manual for additional warnings and information regarding regulations.

Notification types

The following examples show how warning signals, safety instructions, other instructions and notes are represented in this document. The text explains their intended use.

⚠️ **Warning:**

Indicates a dangerous situation likely to entail a potential serious violation of a user, an engineer, a patient or any other person.

⚠️ **Caution:**

Indicates danger with a low level of risk, which may lead to minor or moderate injury if not prevented.

ℹ️ **Instruction:**

Indicates important information that has to be read, understood, maintained and/or obeyed by the user in order to ensure a safe operation of the software.

📝 **Note:**

Gives advice and highlights unusual matters. A note is not an instruction.

❗ **Important!**

Highlights information that is required by the user in order to ensure proper effect of the software, for instance enabling permissions or the availability of licenses.

⛔ **Restriction:**

Indicates a limitation of the software or a condition that needs to be fulfilled for proper effect of the software.

💡 **Tip:**

Provides hints enabling different ways of performing tasks, for instance by using a shortcut key.

Table of Contents

General

How to change the language for the PACSonWEB interface, see:

- PACSonWEB Interface Language (refer to page 11)
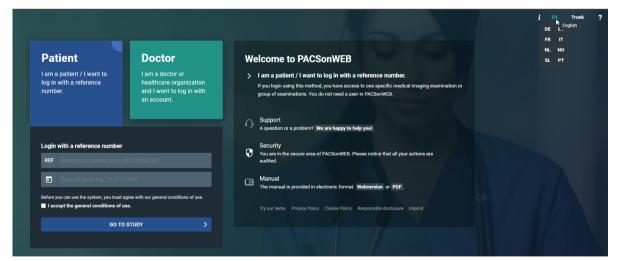
If you want to use PACSonWEB, you need to agree with the applicable general conditions:

- General Conditions - Registered user (refer to page 12)
- General Conditions - Patient (refer to page 17)

1.1 PACSonWEB Interface Language

Upon first use, the PACSonWEB interface is displayed in the default language of your browser.

This language is also shown from the language picker on the top right of the page. Using the language picker, the language can be changed at any time.

From the language picker it is possible to switch to any of the following languages:

- English
- Dutch

- French
- German
- Italian
- Norwegian
- Portuguese
- Spanish
- Slovenian

The selected language is stored in a cookie so your preference is remembered the next time you logon to PACSonWEB from the same device.

In case cookies are cleared from your device, the selected language will fall back to the browser default language.

1.2 General Conditions - Registered user

These General Terms and Conditions for Use (hereinafter called the "Terms") govern the contractual relationship between (1) Dobco Medical Systems NV, with its registered office at 9240 Zele, Nachtegaalstraat 6, Belgium, company registration number 0833.277.213 (hereinafter called "Dobco Medical Systems") and (2) the person who uses PACSonWEB through a registered account (hereinafter called the "User").

The User has read and taken cognisance of the Terms' contents and in using PACSonWEB, explicitly accepts their application. If the User does not agree to these Terms, please do not use PACSonWEB.

Where appropriate, Dobco Medical Systems may make changes to the Terms at its sole discretion. If Dobco Medical Systems makes any substantive changes to the Terms, the User will be provided with clear notification in advance, as appropriate to the circumstances. Continued use of PACSonWEB by the User after he/she has received such notification will be regarded as explicit acceptance of the changes. Accordingly, the User should read such notification carefully. If the User does not agree to the changes, please do not continue to use PACSonWEB.

1. Responsibilities and limited guarantee

1.1. Dobco Medical Systems shall make every effort, within reason, to ensure that the User of PACSonWEB can make regular use of the services and/or functionalities outlined on www.pacsonweb.com ⬈.

1.2. PACSonWEB is an aid for the presentation of images and reports for patients and doctors, exchanging studies, etc. The User is and remains responsible for the results derived from or achieved with this resource. Insofar as permissible by law, any guarantee covering the suitability for a certain use or purpose is expressly excluded.

1.3. The User is aware that PACSonWEB is a system for providing medical data to external parties and exchanging such data in a safe environment, and that Dobco

Medical Systems is solely responsible for the good technical execution of this in accordance with the highest standards. This means that, among other things, Dobco Medical Systems is not responsible for the medical data that are processed by the healthcare facility or organisation and/or the Users on PACSonWEB.

1.4. Dobco Medical Systems cannot guarantee that PACSonWEB (including access thereto, its use and/or the services provided) are completely free of bugs, errors and technical faults or that its use is at all times guaranteed. For instance, PACSonWEB's availability and services may be disrupted at any time in full or in part for maintenance and other purposes. Dobco Medical Systems reserves the right to temporarily or permanently change or discontinue PACSonWEB's functions and/or features at periodic intervals and at any time, with or without notice, without any liability towards the User, in the event of any interruption, change or discontinuation of PACSonWEB or any function or feature of PACSonWEB.

1.5. Furthermore, certain technical difficulties may result in temporary interruptions from time to time. Under no circumstances shall Dobco Medical Systems be held liable where the regular service is disrupted due to technical faults or malfunctions in the network which are beyond the control of Dobco Medical Systems or which ensue as a consequence of the evolution of systems, technologies, etc.

1.6. The User is solely responsible for the selection, costs and maintenance of the IT infrastructure on which PACSonWEB is used, and hereby acknowledges that how many details and what information can be obtained from the available images, among other things, depends on the quality of the monitor and the reproduction equipment.

2. Security, identification and access to data

2.1. Dobco Medical Systems will make the required effort to provide adjusted security and identification methods for access to and use of PACSonWEB in a secure environment.

2.2. The User will receive access to PACSonWEB through an account which the User will receive from Dobco Medical Systems or the responsible healthcare facility or organisation. The person who grants the User access to PACSonWEB will bear the risks associated with transmitting data to the User.

2.3. The account information is strictly personal and non-transferable, and the User must keep this information strictly confidential. Once received, the User is obliged to treat the data with care. The User is solely responsible for authorised or unauthorised use of the information, including each instance of use by third parties. In the event of a breach or suspected breach of this paragraph, Dobco Medical Systems shall be at liberty to take all necessary measures to block or to delete data, to block the User's access and/or to suspend or terminate the licence without the User having any right to compensation.

2.4. If the User obtains knowledge of the loss or unauthorised use of his/her account by third parties or suspects such loss or unauthorised use, then he/she must immediately report this to Dobco Medical Systems through the help desk

(support@dobcomed.com or at +32 (0)52 77 01 15). Dobco Medical Systems will take all necessary and reasonable measures as quickly as possible, and will block the User's account, if necessary.

2.5. The responsible healthcare facility or organisation and/or the User are solely responsible for granting access rights to the medical data to the correct Users, in accordance with the methods that PACSonWEB foresees for this.

3. Use of PACSonWEB

3.1. PACSonWEB is a web based solution intended for the distribution and visualization of medical images and reports over the internet to requesting physicians and patients and among hospitals. The embedded viewer contains optimisation tools for reproducing images (window levelling, inversion, spatial locator, reference lines, …) and measuring functionality (linear measurement, angle guage, vertical height gauge, …) that makes PACSonWEB suitable for use as an aid for diagnoses or as a tool for drawing up diagnoses.

3.2 As a distribution medium, PACSonWEB is used to make medical images and reports, made at a hospital or private radiologist, available to the requesting physician over the internet. The images are also available for reference to the patient. It is the decision of the radiology department of the hospital or the private radiologist if the report is also available to the patient or not. Using the related reference codes, owned by the patient, the exam and report can easily be consulted by any physician that has a PACSonWEB account. The images are available online for a period between 1 and 5 years, as determined by the sending radiology department.

As a diagnostic tool, PACSonWEB can be used by a radiologist to visualize and enhance available images and perform measurements in order to make a diagnosis. The report can be recorded within PACSonWEB. Within the scope of the use of PACSonWEB, the User is obligated:

- to be logged on to PACSonWEB as a registered user when using PACSonWEB for diagnostic purposes;

- not to use PACSonWEB as an archive. the User or the responsible healthcare facility or organisation must archive the data on another system;

- not to use PACSonWEB for illegal purposes or conduct that is objectionable in any other way, either in an illegal or threatening manner or in a manner that is dangerous for PACSonWEB, Dobco Medical Systems or third parties;

- not to use PACSonWEB to process content that (i) is illegal, fraudulent, threatening or harmful or that is objectionable in any other way, (ii) he/she is not authorised to process according to applicable regulations or stemming from contractual relationships, or (iii) violates the rights of a third party, including but not limited to the right to protect one's privacy;

- not to use or disclose any resources, software or routines that could harm or place an excessive burden on the accessibility, security or proper functioning of PACSonWEB.

- Copying, redistributing, leasing, selling, transferring, assigning, reverse-engineering or decompiling PACSonWEB, or any part of PACSonWEB, in any way including all other uses of PACSonWEB or its content by any other means are expressly prohibited under the Terms or pursuant to the applicable legislation, as are any other breaches of the intellectual property rights associated with PACSonWEB or any part thereof.

- No attempt may be made to access restricted or screened-off parts of PACSonWEB to which the User has not been explicitly granted access.

3.3. In the event of a violation or suspected violation of section 3.1, Dobco Medical Systems will be entitled to take all necessary measures, block or delete data, block the User's access and/or suspend or cancel the User's licence, without the User being entitled to any compensation for damages.

3.4. Special care must be taken when decisions about patients are made based on the demographic data and other patient information available in PACSonWEB. Demographic or other details may be incorrect or incomplete if incorrectly entered by the responsible healthcare facility or organisation, resulting in incorrect reproduction and/or mismatching. This is beyond the control of Dobco Medical Systems and under no circumstances can it be held liable as a result of such errors.

3.5. The PACSonWEB user manual is provided in electronic format and can be consulted on http://manuals.pacsonweb.com/display/MANPOW3. A registered user can request a paper copy of the manual with the service desk of Dobco Medical Systems. The company will use its reasonable endeavours to deliver this within 7 days.

3.6. The use of PACSonWEB is subject to the health care and patient act and its rules of confidentiality. All patient images are considered as health data and should be used solely for diagnostic and/or treatment purposes within the framework of health legislation. Misuse of the images may be linked to civil and criminal liability. If you choose to download images from PACSonWEB locally, make sure that your treatment of the image complies with current applicable health legislation, as well as the "norm for information security, health and care services" from the Directorate of Health or other competent local regulations. You are responsible for the image being further processed and used in accordance with applicable health and privacy legislation. Be aware that the images are copyrighted and belong to the institution where such images were taken (e.g. the hospital or private radiologist or their licensors).

4. Liabilities

4.1. Insofar and to the extent that is permitted under the applicable legislation, Dobco Medical Systems' liability for any direct damage arising from the User's use of PACSonWEB will not exceed EUR 1,000 per incident, regardless of whether Dobco

Medical Systems' liability arises from contractual provisions, an unlawful act (including negligence or failure to observe a statutory duty) or any other cause. Under no circumstances (save in the case of deception or deliberate error), shall Dobco Medical Systems be liable in respect of any indirect, unforeseen or immaterial damage, including loss of profit, damage to [public] image, loss of data, loss of information, loss of turnover, loss of customers, damage suffered by third parties and/or interruption of the User's operations.

4.2. The User accepts that if one of the User's actions, performed deliberately or due to negligence and in breach of these Terms, disrupts the operation of PACSonWEB or damages PACSonWEB, the User fully shall reimburse Dobco Medical Systems for all costs incurred in repairing the affected systems and for all losses, both directly and indirectly (including, but not limited to, loss of profit, loss of turnover, loss of customers and loss of goodwill) that Dobco Medical Systems may incur as a consequence of such actions; the User should at least indemnify Dobco Medical Systems for and against all losses, costs and any compensation claims of any kind ensuing from such actions.

4.3. Dobco Medical Systems cannot be held liable for any failure or delay in the fulfilment of its obligations to the User where such failure can be attributed directly or indirectly to circumstances beyond Dobco Medical Systems' control and over which Dobco Medical System cannot reasonably be expected to have any control ("Force Majeure"), including but not limited to strikes, power cuts, power failures or downtime caused by the energy supplier, the energy grid or the external infrastructure, attacks by hackers, viruses, riots, uprisings, terrorist attacks, war, fires, flooding, storm, explosions, earthquakes, natural disasters, government measures, employment circumstances or any other cause which may reasonably be beyond the control of Dobco Medical System.

5. Intellectual property rights

5.1. The User acknowledges and accepts that PACSonWEB, including its software, is protected by intellectual and industrial property rights (including but not limited to copyright, trademarks, etc.), of which Dobco Medical Systems or its suppliers are the proprietor(s). The User recognises these property rights of Dobco Medical Systems and/or Dobco Medical Systems' licensors and acknowledges that the User does not acquire any intellectual or industrial property rights pertaining to the trademark, the software and/or PACSonWEB.

5.2. The User only acquires a personal, revocable, non-transferable and non-exclusive right to use PACSonWEB in accordance with the purposes set forth in the Terms and on www.pacsonweb.com.

5.3. Nothing in these Terms prohibits Dobco Medical Systems and/or Dobco Medical Systems' licensors from using, further developing, marketing, sublicensing or otherwise licensing PACSonWEB or making any part thereof available, including its content, anywhere in the world, in any way. Neither shall these Terms be interpreted as the granting of certain rights to the User, either to PACSonWEB or to any other

existing or future platform of Dobco Medical Systems or its licensors, whether or not comparable to PACSonWEB.

6. Term and termination

This agreement between Dobco Medical Systems and the User is concluded for the period during which the User makes use of PACSonWEB. Dobco Medical Systems may suspend the User's access to PACSonWEB at any time, including in the event of actual or suspected unauthorised use by the User of PACSonWEB and/or its content, or non-compliance with the Terms. If the User or Dobco Medical Systems terminates the agreement, or if Dobco Medical Systems suspends the User's access to PACSonWEB, the User agrees that Dobco Medical Systems will have no liability or responsibility towards the User and that Dobco Medical Systems will not be required to pay any compensation.

7. Applicable law and the competent court

These Terms are governed by Belgian law. In the event of a dispute regarding the Terms, only the courts in the division of Dendermonde in Belgium have exclusive jurisdiction, or if the User is a consumer, the court in the User's domicile.

8. Concluding provisions

8.1. Dobco Medical SystemDobco Medical Systems shall implement appropriate technical and organisational measures to protect the personal data of Users against unauthorised or unlawful processing and against (accidental) loss or damage. Dobco Medical Systems complies with the legislation and regulations governing the protection of personal data, including Regulation (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

8.2. The voidness or invalidity of any provision of these Terms, or any part thereof, will not result in the voidness or invalidity of the entire Terms. Should any provision in these Terms be deemed void or invalid, the provision in question shall be replaced ipso jure by a valid provision, or a valid part, that is as close as possible to the original intention of Dobco Medical Systems. The inability to effect such a desired replacement will in no way affect the validity of the remaining provisions. Should any provision in these Terms be declared invalid or non-enforceable, the remaining provisions of these Terms will continue to apply and be enforceable.

"By using PACSonWEB, I acknowledge that I have taken note of the PACSonWEB Conditions of use, which set forth obligations for the user and limit the liability of the PACSonWEB supplier, and I declare that I agree to these Conditions."

1.3 General Conditions - Patient

These General Terms and Conditions for Use (hereinafter called the "Terms") govern the contractual relationship between (1) Dobco Medical Systems NV, with its registered office at 9240 Zele, Nachtegaalstraat 6, Belgium, company registration

number 0833.277.213 (hereinafter called "Dobco Medical Systems") and (2) the person who uses PACSonWEB via a reference number (hereinafter called the "User").

The User has read and taken cognisance of the Terms' contents and in using PACSonWEB, explicitly accepts their application. If the User does not agree to these Terms, please do not use PACSonWEB.

Where appropriate, Dobco Medical Systems may make changes to the Terms at its sole discretion. If Dobco Medical Systems makes any substantive changes to the Terms, the User will be provided with clear notification in advance, as appropriate to the circumstances. Continued use of PACSonWEB by the User after he/she has received such notification will be regarded as explicit acceptance of the changes. Accordingly, the User should read such notification carefully. If the User does not agree to the changes, please do not continue to use PACSonWEB.

1. Responsibilities and limited guarantee

1.1. Dobco Medical Systems will use its reasonable endeavours to ensure that the User can make regular use of PACSonWEB to consult medical images and/or reports for reference purposes. Reports will only be accessible if, and insofar as, the transmitting radiology department has decided that the User may have access to same.

1.2. The User is aware that PACSonWEB is a system for providing medical data to external parties and exchanging such data in a safe environment, and that Dobco Medical Systems is solely responsible for the good technical execution of this in accordance with the highest standards. This means that, among other things, Dobco Medical Systems is not responsible for the medical data that are processed by the healthcare facility or organisation and/or the Users on PACSonWEB.

1.3. Dobco Medical Systems cannot guarantee that PACSonWEB (including access thereto, its use and/or the services provided) are completely free of bugs, errors and technical faults or that its use is at all times guaranteed. For instance, PACSonWEB's availability and services may be disrupted at any time in full or in part for maintenance and other purposes. Dobco Medical Systems reserves the right to temporarily or permanently change or discontinue PACSonWEB's functions and/or features at periodic intervals and at any time, with or without notice, without any liability towards the User, in the event of any interruption, change or discontinuation of PACSonWEB or any function or feature of PACSonWEB.

1.4. Furthermore, certain technical difficulties may result in temporary interruptions from time to time. Under no circumstances shall Dobco Medical Systems be held liable where the regular service is disrupted due to technical faults or malfunctions in the network which are beyond the control of Dobco Medical Systems or which ensue as a consequence of the evolution of systems, technologies, etc.

1.5. The User is solely responsible for the selection, costs and maintenance of the IT infrastructure on which PACSonWEB is used, and hereby acknowledges that how many details and what information can be obtained from the available images,

among other things, depends on the quality of the monitor and the reproduction equipment.

2. Security, identification and access to data

2.1. Dobco Medical Systems will make the required effort to provide adjusted security and identification methods for access to and use of PACSonWEB in a secure environment.

2.2. The User will receive access to PACSonWEB through a reference number and his date of birth, which the User will receive from Dobco Medical Systems or the responsible healthcare facility or organisation. The person who grants the User access to PACSonWEB will bear the risks associated with transmitting data to the User.

2.3. Login details (i.e. reference number combined with the date of birth) are strictly personal and non-transferable, and the User must keep this information strictly confidential. Once received, the User is obliged to treat the data with care. The User is solely responsible for authorised or unauthorised use of the information, including each instance of use by third parties. In the event of a breach or suspected breach of this paragraph, Dobco Medical Systems shall be at liberty to take all necessary measures to block or to delete data, to block the User's access and/or to suspend or terminate the licence without the User having any right to compensation.

2.4. If the User obtains knowledge of the loss or unauthorised use of his/her reference number by third parties or suspects such loss or unauthorised use, then he/she must immediately report this to Dobco Medical Systems through the help desk (support@dobcomed.com🔗 or at +32 (0)52 77 01 15). Dobco Medical Systems will take all necessary and reasonable measures as quickly as possible, and will block the User's account, if necessary.

2.5. The responsible healthcare facility or organisation and/or the User are solely responsible for granting access rights to the medical data to the correct Users, in accordance with the methods that PACSonWEB foresees for this.

3. Use of PACSonWEB

3.1. PACSonWEB is a web-based solution for the distribution and display of medical images and, where appropriate, reports via the Internet for requesting doctors, patients and between hospitals.

As a distribution medium, PACSonWEB's purpose is to make medical images and reports from the associated hospitals and radiology departments available to the requesting doctors via the Internet.

The images are also made available to patients for reference purposes. The transmitting radiology department decides whether the patient has access to the report or not

Within the scope of the use of PACSonWEB, the User is obligated:

- being logged in with a reference number combined with the date of birth;

- not to use PACSonWEB for diagnostic or illegal purposes or conduct that is objectionable in any other way, either in an illegal or threatening manner or in a manner that is dangerous for PACSonWEB, Dobco Medical Systems or third parties;

- not to use PACSonWEB to process content that (i) is illegal, fraudulent, threatening or harmful or that is objectionable in any other way, (ii) he/she is not authorised to process according to applicable regulations or stemming from contractual relationships, or (iii) violates the rights of a third party, including but not limited to the right to protect one's privacy;

- not to use or disclose any resources, software or routines that could harm or place an excessive burden on the accessibility, security or proper functioning of PACSonWEB.

- Copying, redistributing, leasing, selling, transferring, assigning, reverse-engineering or decompiling PACSonWEB, or any part of PACSonWEB, in any way including all other uses of PACSonWEB or its content by any other means are expressly prohibited under the Terms or pursuant to the applicable legislation, as are any other breaches of the intellectual property rights associated with PACSonWEB or any part thereof.

- No attempt may be made to access restricted or screened-off parts of PACSonWEB to which the User has not been explicitly granted access.

3.2. In the event of a violation or suspected violation of section 3.1, Dobco Medical Systems will be entitled to take all necessary measures, block or delete data, block the User's access and/or suspend or cancel the User's licence, without the User being entitled to any compensation for damages.

3.3. Demographic or other details may be incorrect or incomplete if incorrectly entered by the responsible healthcare facility or organisation, resulting in incorrect reproduction and/or mismatching. This is beyond the control of Dobco Medical Systems and under no circumstances can it be held liable as a result of such errors.

3.4. The PACSonWEB user manual is provided in electronic format and can be consulted on http://manuals.pacsonweb.com/display/MANPOW3.

4. Liabilities

4.1. Insofar and to the extent that is permitted under the applicable legislation, Dobco Medical Systems' liability for any direct damage arising from the User's use of PACSonWEB will not exceed EUR 1,000 per incident, regardless of whether Dobco Medical Systems' liability arises from contractual provisions, an unlawful act (including negligence or failure to observe a statutory duty) or any other cause. Under no circumstances (save in the case of deception or deliberate error), shall Dobco Medical Systems be liable in respect of any indirect, unforeseen or immaterial damage, including loss of profit, damage to [public] image, loss of data, loss of information, loss of turnover, loss of customers, damage suffered by third parties and/or interruption of the User's operations.

4.2. The User accepts that if one of the User's actions, performed deliberately or due to negligence and in breach of these Terms, disrupts the operation of PACSonWEB or damages PACSonWEB, the User fully shall reimburse Dobco Medical Systems for all costs incurred in repairing the affected systems and for all losses, both directly and indirectly (including, but not limited to, loss of profit, loss of turnover, loss of customers and loss of goodwill) that Dobco Medical Systems may incur as a consequence of such actions; the User should at least indemnify Dobco Medical Systems for and against all losses, costs and any compensation claims of any kind ensuing from such actions.

4.3. Dobco Medical Systems cannot be held liable for any failure or delay in the fulfilment of its obligations to the User where such failure can be attributed directly or indirectly to circumstances beyond Dobco Medical Systems' control and over which Dobco Medical System cannot reasonably be expected to have any control ("Force Majeure"), including but not limited to strikes, power cuts, power failures or downtime caused by the energy supplier, the energy grid or the external infrastructure, attacks by hackers, viruses, riots, uprisings, terrorist attacks, war, fires, flooding, storm, explosions, earthquakes, natural disasters, government measures, employment circumstances or any other cause which may reasonably be beyond the control of Dobco Medical System.

5. Intellectual property rights

5.1. The User acknowledges and accepts that PACSonWEB, including its software, is protected by intellectual and industrial property rights (including but not limited to copyright, trademarks, etc.), of which Dobco Medical Systems or its suppliers are the proprietor(s). The User recognises these property rights of Dobco Medical Systems and/or Dobco Medical Systems' licensors and acknowledges that the User does not acquire any intellectual or industrial property rights pertaining to the trademark, the software and/or PACSonWEB.

5.2. The User only acquires a personal, revocable, non-transferable and non-exclusive right to use PACSonWEB in accordance with the purposes set forth in the Terms and on www.pacsonweb.com 🔗.

5.3. Nothing in these Terms prohibits Dobco Medical Systems and/or Dobco Medical Systems' licensors from using, further developing, marketing, sublicensing or otherwise licensing PACSonWEB or making any part thereof available, including its content, anywhere in the world, in any way. Neither shall these Terms be interpreted as the granting of certain rights to the User, either to PACSonWEB or to any other existing or future platform of Dobco Medical Systems or its licensors, whether or not comparable to PACSonWEB.

6. Term and termination

This agreement between Dobco Medical Systems and the User is concluded for the period during which the User makes use of PACSonWEB. Dobco Medical Systems may suspend the User's access to PACSonWEB at any time, including in the event of actual or suspected unauthorised use by the User of PACSonWEB and/or its content,

or non-compliance with the Terms. If the User or Dobco Medical Systems terminates the agreement, or if Dobco Medical Systems suspends the User's access to PACSonWEB, the User agrees that Dobco Medical Systems will have no liability or responsibility towards the User and that Dobco Medical Systems will not be required to pay any compensation.

7. Applicable law and the competent court

These Terms are governed by Belgian law. In the event of a dispute regarding the Terms, only the courts in the division of Dendermonde in Belgium have exclusive jurisdiction, or if the User is a consumer, the court in the User's domicile.

8. Concluding provisions

8.1. Dobco Medical SystemDobco Medical Systems shall implement appropriate technical and organisational measures to protect the personal data of Users against unauthorised or unlawful processing and against (accidental) loss or damage. Dobco Medical Systems complies with the legislation and regulations governing the protection of personal data, including Regulation (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

8.2. The voidness or invalidity of any provision of these Terms, or any part thereof, will not result in the voidness or invalidity of the entire Terms. Should any provision in these Terms be deemed void or invalid, the provision in question shall be replaced ipso jure by a valid provision, or a valid part, that is as close as possible to the original intention of Dobco Medical Systems. The inability to effect such a desired replacement will in no way affect the validity of the remaining provisions. Should any provision in these Terms be declared invalid or non-enforceable, the remaining provisions of these Terms will continue to apply and be enforceable.

"By using PACSonWEB, I acknowledge that I have taken note of the PACSonWEB Conditions of use, which set forth obligations for the user and limit the liability of the PACSonWEB supplier, and I declare that I agree to these Conditions."

Registration for a PACSonWEB account

<div style="float:right">**2**</div>

⚠️ **Important!**

Belgian users can create an account by registration through e-ID or by requesting an account as described below.

Other countries have to contact the radiology service whose studies they wish to view.

⚠️ **Important!**

Dobco Medical Systems may only provide accounts to health care providers who are authorised to request a radiology study.

Specifically:

Eligible: GPs, specialists, dentists

Not eligible: physical therapists, osteopaths, nursing staff, patients (logging in is only possible by clicking on "I am a patient or health care provider who wants to log in with the reference number").

💡 **Tip:**

If you are working in a group practice, PACSonWEB offers the possibility to grant access automatically to all members of the group to all exams that have been requested by any of the members.

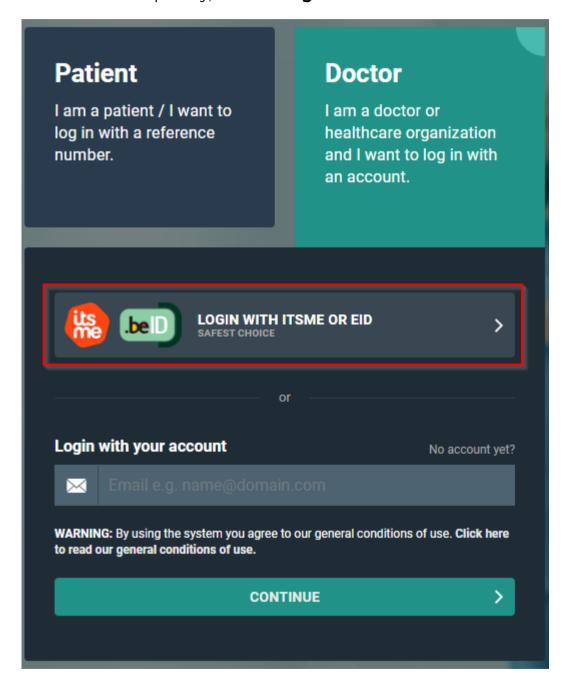This is, however, only possible if all members of the group group practice, have a personal PACSonWEB account.

The request to link different accounts into a group practice can be submitted to the service desk.

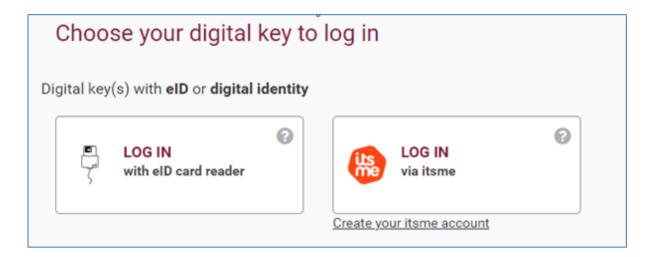Dedalus

2.1 Registration through e-ID (BE only)

In order to create your account through e-ID, please visit the page https://secure.pacsonweb.com and go through the following steps

1. Click on **I am a doctor or healthcare organization and I want to log in with an account.** Subsequently, click on **Login with Itsme of eID**.
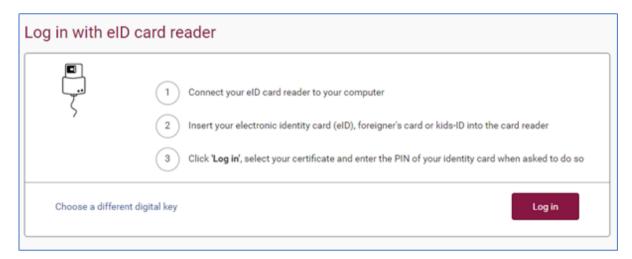
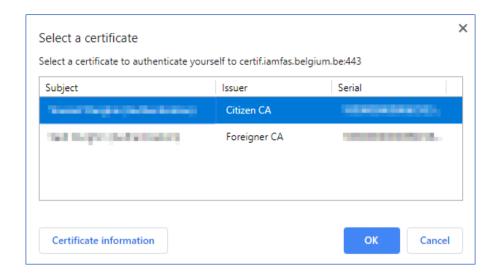2. In the next screen click on **Log in with eID card reader**.

Choose your digital key to log in

Digital key(s) with **eID** or **digital identity**

LOG IN
with eID card reader

LOG IN
via itsme

Create your itsme account

3. Then follow the steps on the screen and choose **Log in**.

Log in with eID card reader

1. Connect your eID card reader to your computer

2. Insert your electronic identity card (eID), foreigner's card or kids-ID into the card reader

3. Click '**Log in**', select your certificate and enter the PIN of your identity card when asked to do so

Choose a different digital key

Log in
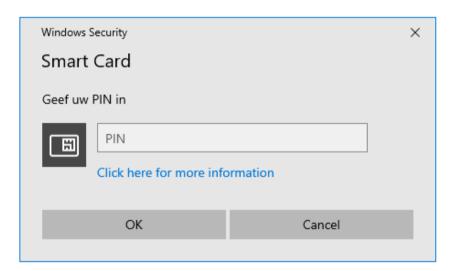
4. Select the certificate with which you wish to log in and click on **OK**. Make sure that your electronic identity card is in your e-ID reader.

The print screens below may look slightly different, depending on the Internet browser (Internet Explorer, Firefox, Chrome, etc.) you are using.

5. Enter the PIN for your certificate and click **OK**

6. Verify your name, select to log in as Civilian ('burger') and click Log In ('Profiel bevestigen').
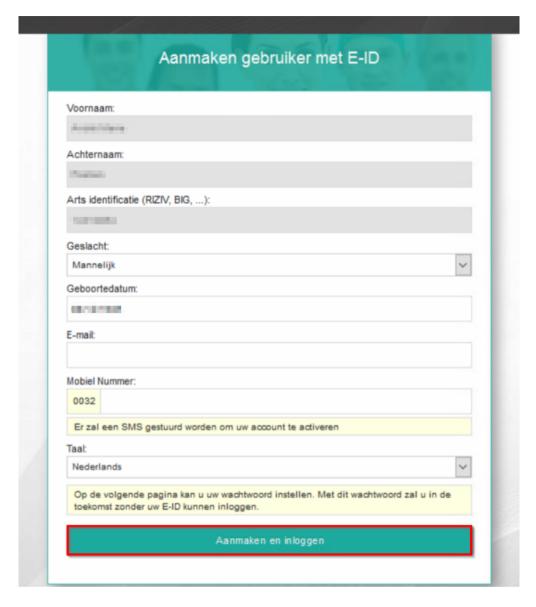
7. After authentication, a screen is displayed to complete the account details for your user.

All fields within this form are mandatory. Complete the form and click on
`Create and log in` ('Aanmaken en inloggen').

The creation of the account can take several minutes.

8. After creating your account, the following screen will be displayed and you will receive a text message on the mobile number that was registered in the previous step.

Enter the code from the text message and choose and confirm a password of choice.

In case an incorrect SMS code is entered, the password will not be changed. If 5 times an incorrect SMS code is used the account will be locked.
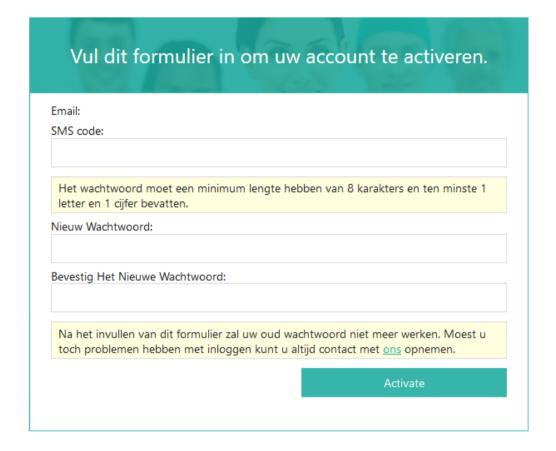
Finally click on Activate to complete the creation and activation of your account.

⚠️ Important!

The chosen password must have a minimum of 8 characters and must contain at least 1 numerical and 1 alphabetical character.

💡 Tip:

Log in with user name and password

After registering with eID you can also log in with user name and password:

- username = the e-mail address that was used when creating the account (step 7)
- password = the password chosen when activating the account (step 8)

Once activated, the account is ready for use and you are now redirected to the logon screen where you can log on by e-ID or by using your username and password.
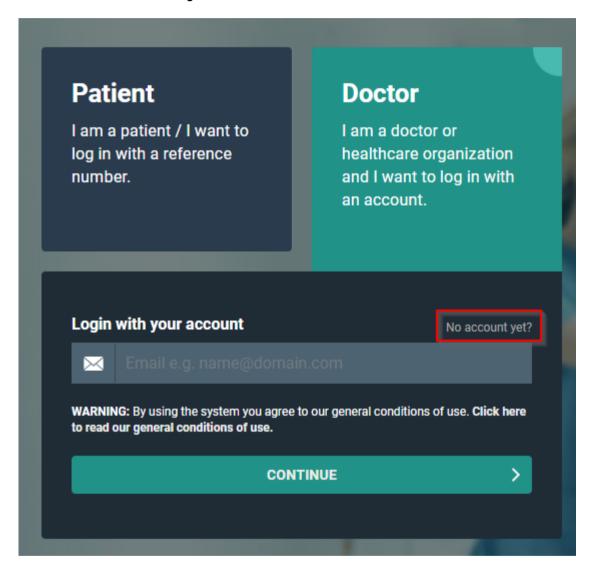
For more information, see Logging in using your username and password (refer to page 37) & Logging in using an e-ID (BE only) (refer to page 45)

2.2 Requesting an account with the service desk

If you want to register for a PACSonWEB account and you choose not to do this through e-ID (cf. Registration through e-ID (BE only) (refer to page 24)) you can file an account request with our service desk.

Click on **No account yet?**
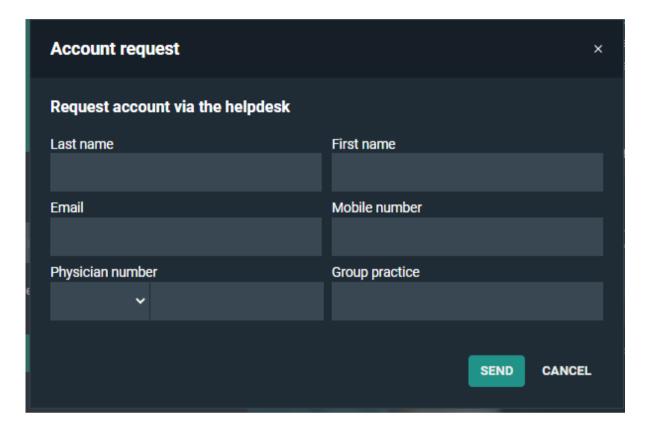
Complete the listed fields (fields, marked with * are mandatory) and click SEND .

This files an account request with our service desk and you will be contacted as soon as possible by an employee of Dobco Medical Systems for verification of your account request.

Since PACSonWEB provides access to sensitive information, the account cannot be granted before the request has been verified.

For faster access, it is always possible to register for an account through our service desk.

An account can also be requested by sending a mail to the service desk with the following information:

- First and last name
- E-mail address
- Physician number (RIZIV / INSEE / HIN / UCGN / PNB)
- Mobile number
- The group practice to which you belong (optional)

Such request will be dealt with in a similar way as those, filed, using the web form that can be accessed through 'I don't have a user name and want to request an account'.

Logging in to PACSonWEB

There are various ways of logging in to PACSonWEB.

Patients can log in using a code, their date of birth and optionally an OTP (= One Time Password) or an SMS token after payment if required.

This will give them access to the images of the request and the report, if the medical institution (hospital or radiologist) has given permission for this.

Physicians, dentists and specialists can register for an account (refer to page 23) with Dobco Medical Systems, after which they can log in with a username and password or through e-ID (Belgium only).

If you log in with your own account, you are first taken to an overview page with all the studies which you are authorised to view.

Click on a study in the list to obtain access to all images and the report, if this is permitted by the medical institution (hospital or radiologist).

> 💡 **Tip:**
>
> PACSonWEB also supports group practices so that you can view your colleagues' studies.

If you are a member of one or more group practices, you will be prompted to confirm your group membership every 3 months.
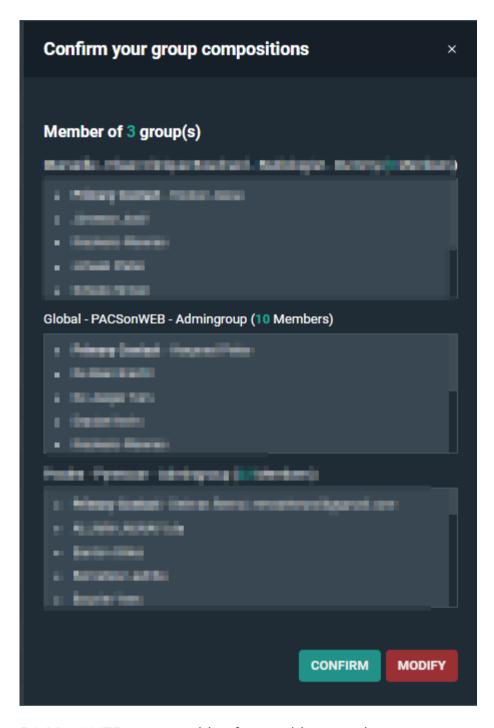
A pop-up will be displayed, listing all groups for which you are a member or administrator.

For each group the current composition is presented with the primary contact on top and all administrators in bold.

In case the presented group composition does no longer reflect the actual situation, you need to report this to a group administrator or the PACSonWEB service desk to have this corrected.

How to modify the composition of a group is explained in detail in My Groups (refer to page 99).

PACSonWEB uses cookies for tracking sessions.

We are legally obligated to display the warning below on a monthly basis.

⊘ Attention:

Cookies

> **PACSonWEB uses cookies**
>
> We make use of cookies on this website. A cookie is a small file that is sent along with pages of this website and stored by your browser on your hard drive of your computer. We use cookies to facilitate the use of our website. You can disable these cookies via the browser, but this may negatively affect the functioning of our website. More details on the cookies that are used, is available in our cookie policy.
>
> **ALLOW ALL COOKIES**   LIMIT TO NECESSARY COOKIES ONLY

⊘ Attention:

Internet Explorer 10 is no longer being supported.

As of today, Internet Explorer 10 and earlier versions are no longer being supported.

Via PACSonWEB you will be taken to the appropriate websites to install a more recent browser.

As PACSonWEB is used in multiple countries it can happen that you end up on the portal of an environment from another country.

Your username or security code will not be known in that environment.

When you open a portal (e.g. http://secure.pacsonweb.com 🗗) but you are situated in another country you will be asked if you want to be redirected to the portal for your country or stay on the current portal.

You can remember your choice by ticking the checkbox **Remember my chosen environment**.

If you accidentally choose the wrong country you can go back to the original environment via a menu in the upper left corner.

3.1 Logging in with a reference number

⚠ Important!

It is **NOT** allowed to use PACSonWEB for diagnostic purposes in case you are connected with a reference number!!

To view your images as a patient, go to the radiology website mentioned in the letter/e-mail containing your reference number.

Click on the 'I am a patient' box.

A window will be displayed, where you must enter your reference code (see radiology letter/e-mail) and date of birth.

Then click on **Go to the study**.

In case your reference code gives access to an order with several exams, the first exam will be opened and the other exams are accessible through the Series picker (refer to page 192) and the History bar (refer to page 188).

⚠ Important!

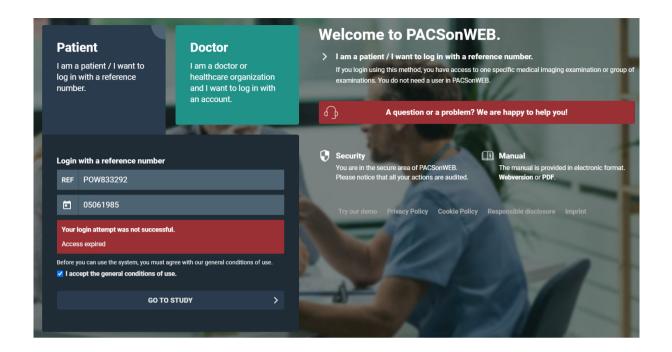You will only have access to the report if this is permitted by the radiology service.

In case the combination of reference number and date of birth is registered in PACSonWEB but no report or images have been received yet, the message "Your results are not available yet, please try again later." will be displayed.

If you enter an incorrect combination, the following error message will be displayed.

![Dedalus logo]

⚠ Important!

If you enter an incorrect combination several times, you will be blocked from further login attempts.

Depending on the authentication method that the radiology service has chosen, your study will be displayed for viewing or you will be redirected to one of he following pages:

OPTION 1: One-Time-Password required

If the "Extra security: Enter One-Time-Password" page is displayed, you must enter the OTP (= One Time Password) that you received either through e-mail or SMS.

Once you've entered the OTP and clicked `Continue`, you will obtain access to your images as well as the report.

OPTION 2: Payment required

If the radiology service requires that the study is payed before allowing access, you will need to validate your mobile number first.

The pop-up will state the study date and the hospital where the study was carried out and the (partially masked) mobile number that was registered at the hospital for the related patient.
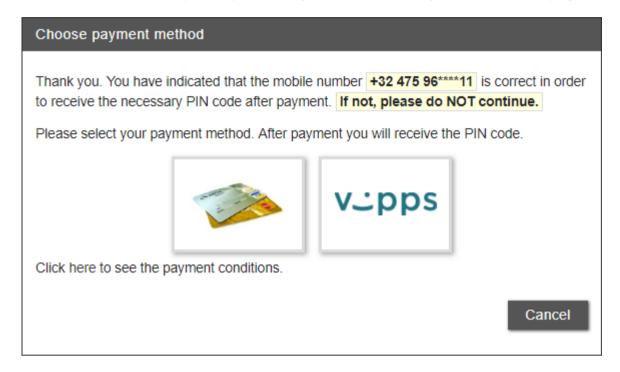
In case the mobile phone number is not correct, click `No`.

You will be shown a pop-up, stating the details of the radiology department you can contact to have your mobile phone number corrected.

In case the mobile phone number is correct, click `Yes`.

You will be shown a pop-up where you can choose your preferred payment method.

Choose payment method

Thank you. You have indicated that the mobile number **+32 475 96****11** is correct in order to receive the necessary PIN code after payment. **If not, please do NOT continue.**

Please select your payment method. After payment you will receive the PIN code.

Click here to see the payment conditions.

Cancel

After the payment has been processed successfully, you will receive an SMS Token which you need to access your exam.

Once a study has been payed for, you can have access to the exam at any time by entering the same reference number, date of birth and Pincode.
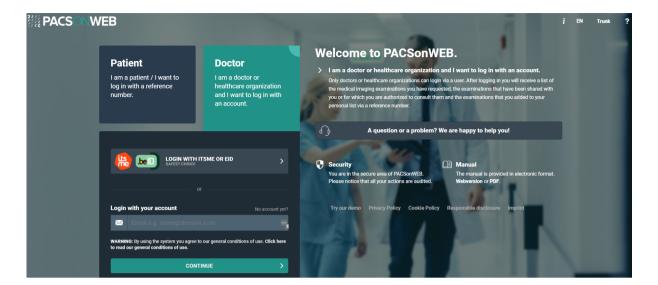
💡 **Tip:**

If you experience problems logging in, please don't hesitate to contact our Service Desk

3.2 Logging in using your username and password

Click on the 'I'm a doctor and want to log in with my account' box.

Under the login information, enter your username (= e-mail address at registration) and click Continue .
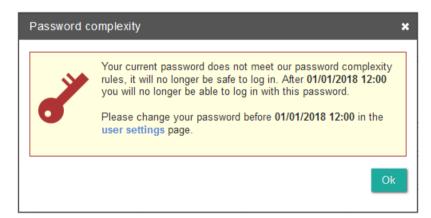
In case you try to log on to PACSonWEB with an active directory account that uses federated services for authentication, you will be redirected to a webpage of your hospital to enter your password.

In all other cases, you can enter your password on the PACSonWEB page and click **Log In**.

In case you log on with a password that does not meet the required password complexity rules (any more) the following pop-up will be displayed:

Click user settings (refer to page 83) to modify your current password.

⚠️ **Important!**

If an active directory integration has been set up for your institution, you need to change your domain password to meet the applicable password complexity rules to be able to logon to PACSonWEB beyond the mentioned date.

If your account requires strong authentication to logon you will receive a temporary code (One-Time-Password) by SMS or mail or need to confirm your login through the authenticator app (refer to page 41).

For more information, we refer to Two-factor authentication (refer to page 39).

If this is the first time you are logging in, you will receive an SMS, and a pop-up window will be displayed requesting you to "Please complete this form to activate your account".

Here you must enter the code you received by SMS, and you can set a password of your choice.

In case an incorrect SMS code is entered, the password will not be changed. If 5 times an incorrect SMS code is used the account will be locked.

This is a one-time procedure. For every subsequent login attempt you can log in with your username and the password you created.

Important!

The password has to be at least 8 characters in length and must contain at least 1 letter and 1 number.

Tip:

If you've forgotten your password, you can reset it yourself by clicking on 'Forgot your password?' on the login page.

(A condition for this is that your mobile number is registered with Dobco Medical Systems.)

Click here (refer to page 51) for a more detailed explanation of how to reset your password.

3.2.1 Two-factor authentication

In case your account requires two-factor authentication, you need to confirm your login by through the PACSonWEB authenticator app or by entering an additional code in the "Extra security: Enter One-Time-Password" screen after logging in.

This code (One-Time-Password) is sent to your mobile phone or email address, depending on your User settings (refer to page 83).

Fill in the received 6-digit code and click Continue . You now have access to all studies you have requested and that have been shared with you.

💡 Tip:

If you tick the option 'Remember this browser for 30 days', you will not be required to enter a one-time password for 30 days when logging in from the same machine with the same browser.

⚠ Important!

Be aware: the OTP code is only valid for 20 minutes.

You can have a new code sent from this screen, by clicking "Resend One Time Password". Only the last received code can be used.

If the One-Time-Password code was entered incorrectly, you will not be logged on.

In case an incorrect OTP was entered 5 consecutive times, the account will be locked out.

If you have not yet configured your two-factor authentication method, you will receive a pop-up to select a two-factor authentification method.

We advise you to use the PACSonWEB Authenticator app (refer to page 41) for two-factor authentication, being the most secure option.

Alternatively you can opt to have a one-time-password (OTP) sent to you by mail or text message

If you choose to receive your **One-Time-Password by email**, the code will be sent to your mail.

If you choose to receive your **One-Time-Password by sms** and your mobile phone number has been registered with your account, the code will be sent to your mobile phone.

In case your mobile phone number has <u>not</u> been registered with your account, you will receive the code on your mail once. After logging on you will have the possibility to register your mobile phone number.

If desired, you can change your two-factor authentication method from your User settings (refer to page 83).

3.2.1.1 Two-factor authentication through Authenticator app

The PACSonWEB Authenticator app offers a secure and user friendly way for securing your account.

The app replaces the use of One-Time-Passwords, sent by mail or text message, by a notification on the app and allows to confirm your logon attempt by a single tap in the app.

💡 **Tip:**

> You can link up to 5 different devices to your account from which you can confirm your login attempt.

You can also use third party authenticator apps such as Lastpass Authenticator, Google Authenticator, Duo …

Download the PACSonWEB Authenticator app

⚠ **Important!**

> If your mobile device does not fulfill the technical requirement, it will not be possible to install the app.

iOS

iOS: in the Apple app store, look for "PACSonWEB" and click "Install".

Requirement: iOS 10 or higher

💡 **Tip:**

For iOS, the authenticator app has been merged with the Home Reading app.

📝 **Note:**

The Home Reading app is still available separately.

Android

Android: in the Google Play store, look for "PACSonWEB Authenticator" and click "Install".

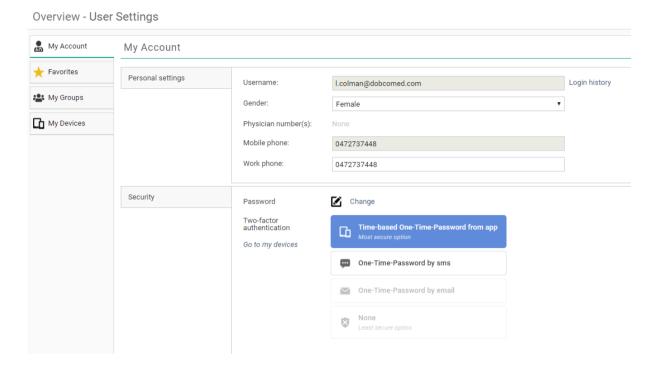Requirement: Android 5.0 or higher (API 21 – Lollipop)

💡 **Tip:**

For Android, the authenticator app and the Home Reading app are onlyavailable separately.

Linking your mobile device to PACSonWEB

Login to PACSonWEB, go to the "security" section from your PACSonWEB user settings and select the option **Time-based One-Time-Password from app**.

Overview - User Settings

A screen opens to link a device. Open your authenticator app on your mobile device and scan the QR code.

For proper functioning the app will ask for access to your camera and to allow notifications.

When using the PACSonWEB authenticator app you can confirm linking your device by tapping **Login** on your mobile device.

In case you use a third party authenticator app, you must confirm linking your device by entering the numeric code from the app.
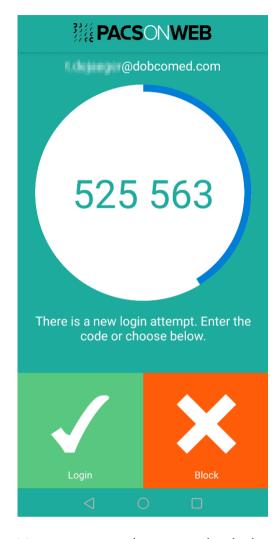
After successfully linking your device, it will be listed in the tab "My devices" in your PACSonWEB user settings as a trusted device.

Logging on using the Authenticator app

Login to PACSonWEB with your username and password.

A notification to confirm or deny your login attempt will be displayed on all linked devices on which you have installed the PACSonWEB authenticator app.

You can complete your login by tapping **Login** from the app.

You are now logged on to PACSonWEB.

In case you have no internet connection on your mobile device or you are using a third party authenticator app, you must enter the numeric code from the app and click Continue in your browser to complete your login.

Unlinking your device

You can unlink a trusted device in the following ways:

- Go to the tab "My devices" from your PACSonWEB user settings and click the 'X' icon next to the device you want to unlink.

- You can unlink a device from the authentication app itself by tapping the hamburger menu ☰ and selecting "Unpair".
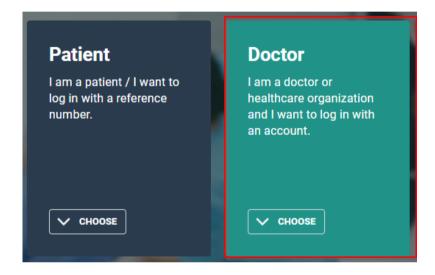
3.3 Logging in using an e-ID (BE only)

🛇 **Important!**
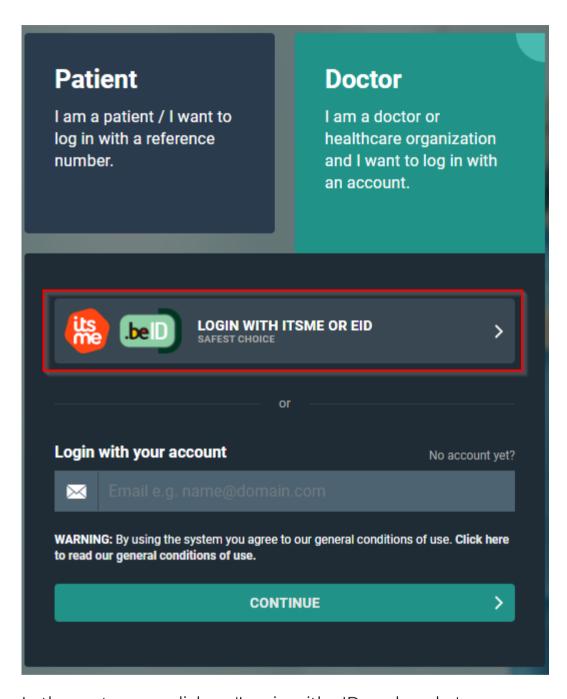
In order to log in through e-ID, the e-ID software has to be installed on your PC and the Windows Certificate Propagation service must be running on your computer.

Click on the 'I am a doctor or healthcare organization and I want to log in with an account' box.
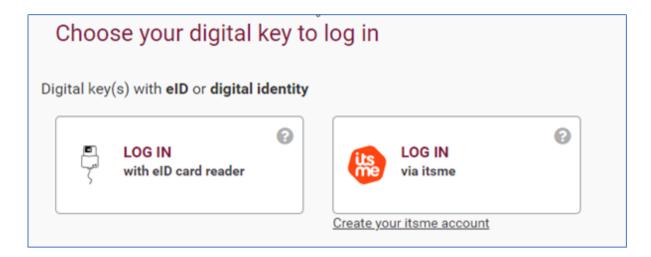
Click on the 'Login with Itsme or eID' button.
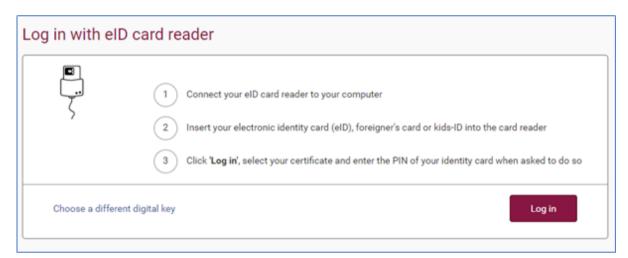
In the next screen click on 'Log in with eID card reader'.
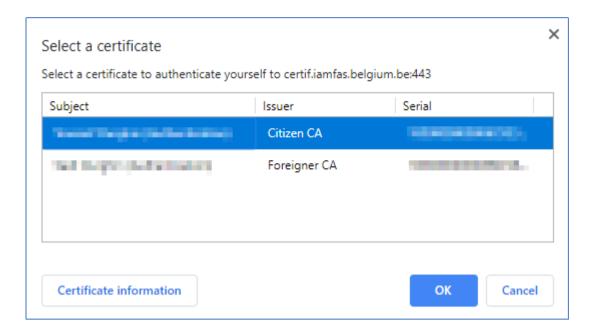
Then follow the steps on the screen and choose 'Log in'.
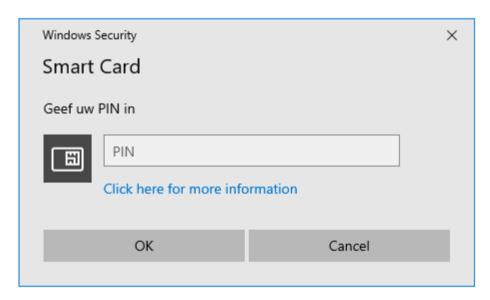
Select the certificate with which you wish to log in and click on OK. Make sure that your electronic identity card is in your e-ID reader.

The print screens below may look slightly different, depending on the Internet browser (Internet Explorer, Firefox, Chrome, etc.) you are using.

Enter the PIN for your certificate and click 'OK'

Verify your name, select to log in as Civilian ('burger') and click Log In ('Profiel bevestigen').
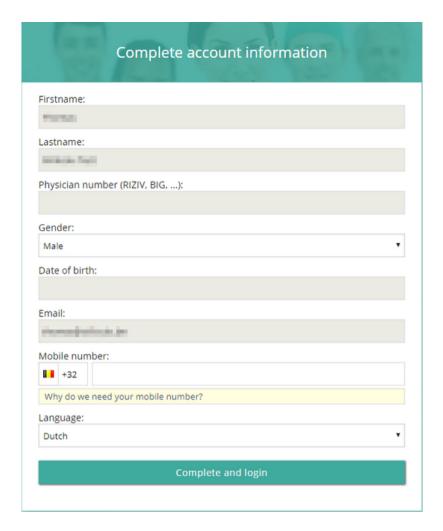
In case you do not have an account yet, you will be guided to complete your account details (cf. Registration through e-ID (BE only) (refer to page 24)).

If you already have a account with all required details, you now have immediate access to all the studies you requested and that have been shared with you.

In case not all required details are available within PACSonWB, a dialog will be shown to complete the missing details:

Account details that are already registered but may not be altered for security reasons are shown but are grayed out.

3.4 Changing passwords

🛑 **Important!**

This function is only available if you are logged in to a PACSonWEB account.

Your PACSonWEB password will expire automatically after one year.
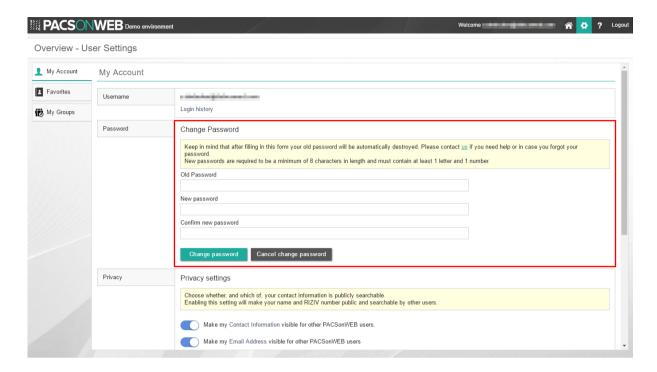
To change your password for your PACSonWEB account, click on the cogwheel ⚙️ in the upper right corner of the overview page.

You will be taken to the "My Account" tab of the Overview - User Settings page.

Click on **Change**. The following page will be displayed.

Enter your old password and then enter your new password twice.

Your new password must meet the following criteria:

- at least 8 characters in length
- at least 1 letter
- at least 1 number

As soon as you click on `Change password`, your old password will be overwritten by the new one.

💡 **Tip:**

If you don't remember your current password, you can always reset your password using the Forgotten password (refer to page 51) procedure from the login page.

3.5 Forgotten/expired password

In case you have forgotten your password or the password has expired (generally after one year) you can use the **Forgot Password?** procedure.

This procedure can only be used if your mobile phone number is registered with Dobco Medical Systems.

Fill in your username and click `Continue`.

From the next screen, you can click **Forgot your password?**

When you click on **Forgot your password?**, a pop-up window will be displayed with the e-mail address you entered in the first screen.

Verify that the email address is spelled correctly and click `RESET`

A window will be displayed when you click on 'Send' confirming that an email with instructions has been sent to the given email address. If you do not receive the email, please contact the service desk.

You will now be sent a mail to your e-mail address. Click on the 'Password Reset' link in this e-mail.

Clicking on this link will open a web page where you:

1. must enter the SMS code that you receive at the GSM number registered with Dobco Medical Systems soon after you click on the link in the e-mail (the GSM number where the code is sent is also mentioned in the e-mail)

2. enter a password of your choosing (requirements: at least 1 letter, at least 1 number, a total of at least 8 characters)

3. confirm the new password

Then click on `Reset password`.

If everything was entered correctly, you'll be redirected to the login page. Now you can log on with your user name and new password.

In case an incorrect SMS code is entered, the password will not be changed. If 5 times an incorrect SMS code is used the account will be locked.

⚠️ **WARNING!**

The link in the e-mail is valid for 48 hours. If you click on this link after 48 hours, the following text will be displayed: "The link for resetting your password has expired. Please click on the link again to reset your password and you will receive a new e-mail with an updated link."

3.6 Delegates

🛑 **Important!**

This feature is optional. If you are interested, please contact the hospital's radiology service.

Use of delegates allows you to log in with a general e-mail address while enabling logging of the person who logs in.
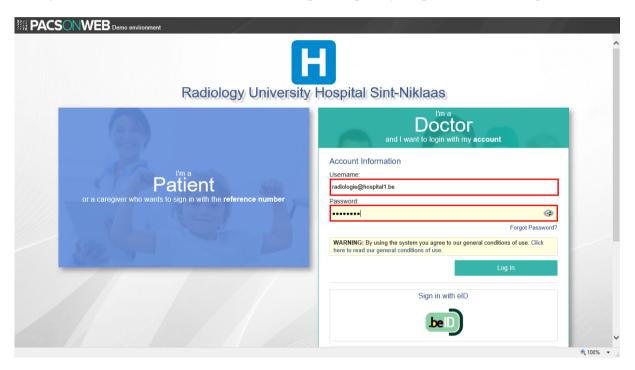
3.6.1 Adding / removing delegates

Proceed as follows to log in with an account that is being used by an entire group:
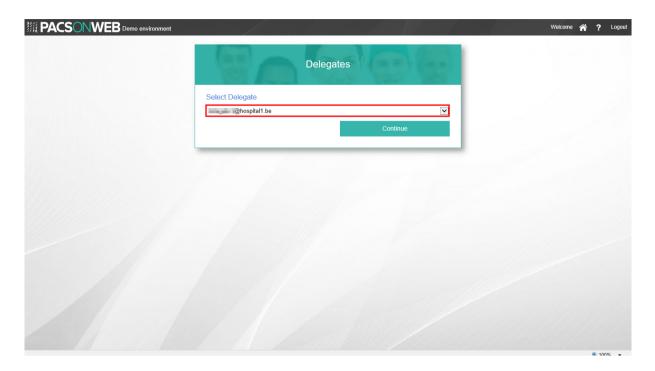
1. If you are interested, please contact the radiology service of the studies you wish to view. Tell them the general e-mail address that will be used to log in as well as the e-mail address of the delegate who will be administering the group. The radiology service will provide you with your login information.

    The person who will be administering the group logs in with the general account.

Select the administrator's e-mail address.
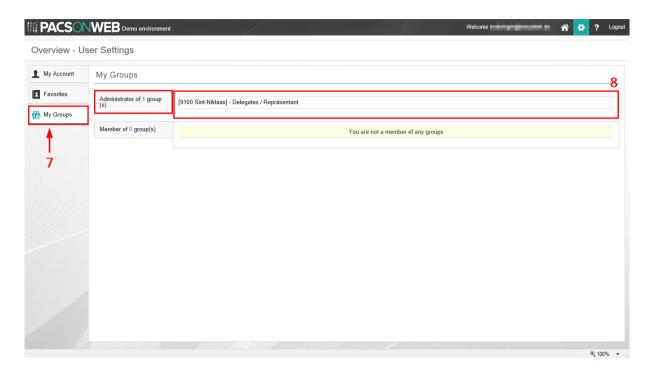
Enter the OTP (One Time Password) that was sent to the e-mail address and click Continue .
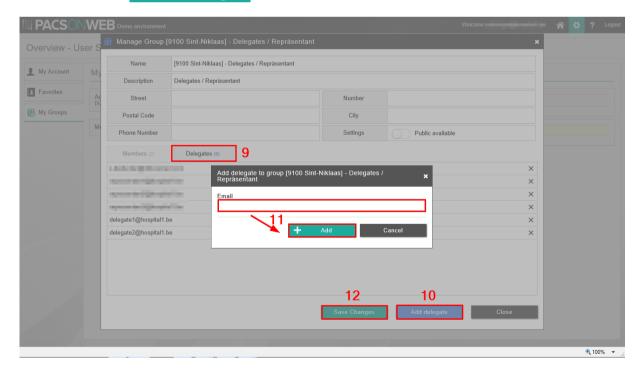
5. You now have access to all studies that were shared with the general e-mail address.

   Click on the cogwheel ⚙ in the upper right corner of the overview page.

7. Select 'My Groups'.

   Click on the group next to 'Administrator of 1 group(s)'.

9. Click on 'Delegates'.
10. Click on **Add delegate**.
11. Enter the e-mail address of the delegate you wish to add and click on Add . Then click on Save Changes .
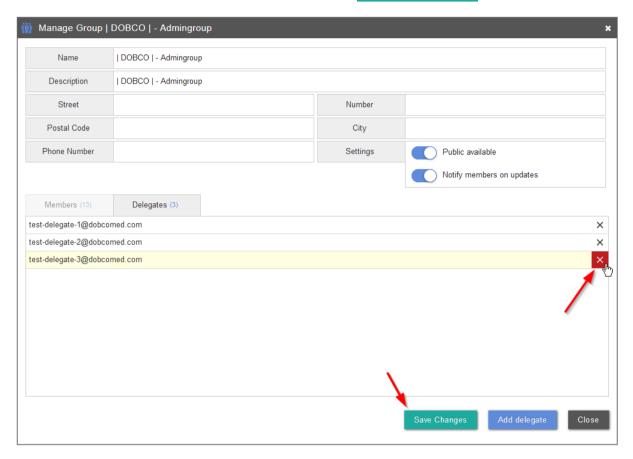
If you now log in with the general account, you can also select recently added e-mail addresses.

In order to remove a delegate, you need to login as an administrator to the Delegate overview and click on the remove icon, next to the delegate. After making the necessary modifications, click Save Changes .
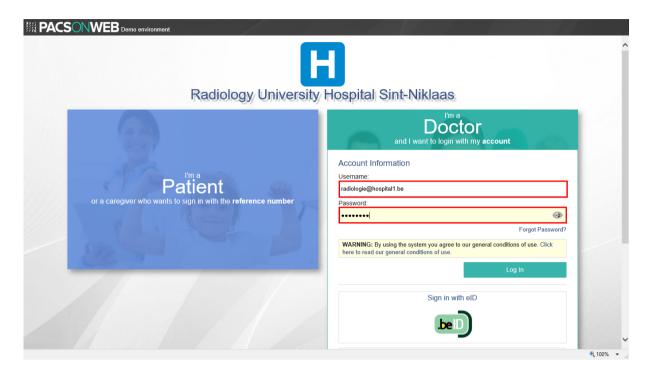
3.6.2 Logging in as a delegate

Proceed as follows to log in as a delegate:

1. Go to the website of the hospital whose images you wish to view.

    Log in with the general account.
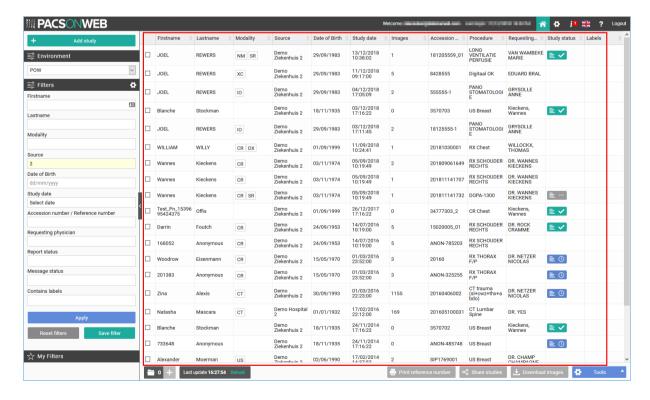
Select your e-mail address.

Enter the OTP (One Time Password) that was sent to your e-mail address and click Continue.

You now have access to all the studies that have been shared with you.

3.7 Logging in through an active directory

💡 **Tip:**

Logging in using active directory means that a user can log in with the domain account or the e-mail address of the hospital and the related password.

This is an optional integration and can only be set up for radiology departments. If you are interested, please contact Dobco Medical Systems for more information.

Go to the hospital's login page and select **I am a doctor and I want to log in with my account**.

In the username field, enter the username or e-mail address of the hospital and click `CONTINUE`.

Now enter the password, registered with the hospital for the related account and click `Log In`

⚠ **Important!**

Active Directory Federation Services

In case the active directory integration has been set up using ADFS, you will be redirected to a separate page, hosted by the hospital to complete the password.

After succesfully logging on to PACSonWEB for the first time, a One Time Password (OTP) is sent by text to the registered mobile phone for the account and the page "Extra security: Enter One-Time-Password" will be displayed to enter the received code. Enter the code and click `Continue`.

In case an incorrect OTP is entered, you will not be logged in. If an incorrect OTP code is used 5 times, the account will be locked.

If everything has been entered correctly, the overview page will be displayed.

If you have connected with a password that does not meet the PACSonWEB password policy (any more), a "Password complexity" pop-up will be displayed stating that your current password does not meet our password complexity rules and it will no longer be safe to log in.

Change your password in the user settings page to meet the imposed password complexity so you can keep logging onto PACSonWEB beyond the mentioned date.
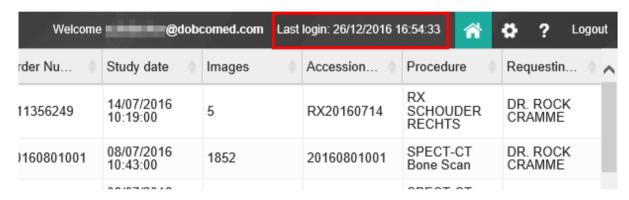
> **Important!**
>
> The password complexity is not checked when using ADFS

3.8 Recording of login attempts
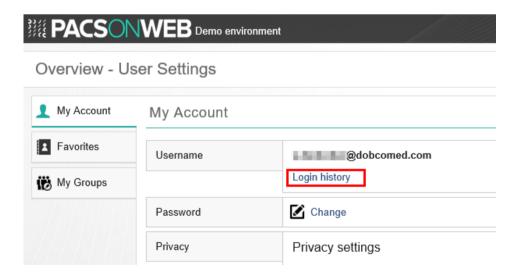
All login attempts to PACSonWEB will be logged.

You can check the most recent correct login with your username at the top of the overview page.

If an incorrect login attempt is recorded for your username, you will be warned of this during the next correct login attempt.

You can request a detailed list of all recorded login attempts via User settings (refer to page 83) by clicking on **Login history**.

The overview shows at what time and from which IP address each login attempt was recorded and whether or not this was successful.

3.9 Logging in using EMR

💡 **Tip:**

> Opening studies on PACSonWEB, directly from the Electronic Medical Record system (EMR) is only possible for radiology departments after setup.
>
> If you are interested, please contact Dobco Medical Systems for more information.

In case you have opened a study from the EMR, this is made visible by displaying (EMR) next to your user name in the top toolbar.

Since you are not logged in using a regular PACSonWEB account, the authentication is considered insufficient to make all features available.

When trying to use a feature that has been made unavailable, the following notification will be shown: "You are logged in via the EMR, and have limited access. In order to use all user functionalities, you will need to log in via PACSonWEB with your account. Click here to log in."

3.10 Logging out of PACSonWEB

If you are logged into PACSonwWEB, you can log out from any page using the button **Logout** on the top right of each page.

For security reasons, your PACSonWEB session will be disconnected automatically, in case:

● the session is inactive for 30 minutes

● 4 hours after logging on to PACSonWEB

These time perionds can be elongated on request by our Service Desk

Also in case you close <u>all</u> browser windows, your PACSonWEB session will be terminated.

🚫 **Important!**

> In case you still have another browser window open (even without PACSonWEB), the session will be retained and it is possible to reopen your PACSonWEB session without providing any login credentials.

PACSonWEB overview page

4

If you logged in as a patient with a reference number, you will be immediately taken to the respective request (see PACSonWEB study page (refer to page 188)).

If you logged in with an account, you will be taken to the overview page. Here you will find all the studies for which you have access rights to view them.

You can have access rights on a study because:

- you are the requesting physician (or CC physician)
- a colleague of your group practice is the requesting physician and studies are shared within the group practice
- you have added the study to your list, using the reference number (See Adding a study (refer to page 73))
- the study was shared with your user, your group or your medical department (See Sharing studies from the overview page (refer to page 114))
- you are member of the user group or admin group of a radiology department

By default, the overview page only contains studies that are available in the central PACSonWEB cloud environment.

A medical imaging department can opt to process the images also locally by a local image cache (see Local image cache (refer to page 182)) to make the images available faster within the local network.

In case your user has access rights to such a local image cache, the overview page will also contain all studies that are available through the local image cache.

💡 **Tip:**

By clicking a line in the overview page, the related study will be opened by default in the active tab.

In case the related setting has been activated for your account, you can open different studies within the same browser tab.

💡 **Tip:**

For Mammograms the images will remain on PACSonWEB for a default period of three years; for other studies images will remain on PACSonWEB for one year.

If you wish to consult an older study, you must contact the radiology service.

The list reloads automatically every 5 minutes or can be refreshed manually by clicking 'Reload' at the bottom of the page.

A window will be displayed if you scroll down to the bottom: "Only the last 100 results are shown. Please use filters to display more specific results."
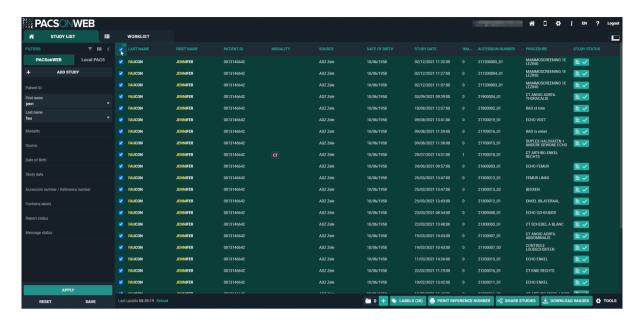
💡 **Tip:**

The list is limited to the 100 most recent studies. You can also use filtering (refer to page 67) to look for older studies.

You can easily select all the studies that are shown in your overview list by checking the box in the first column at the top.

Here you can also see how many studies have been selected.

When you click on a line in the overview page, the respective study will be opened in the active window and tab.

You have various options for opening a study from the overview page in a new tab:

1. CTRL + Shift + click on the study

2. CTRL + click on the study
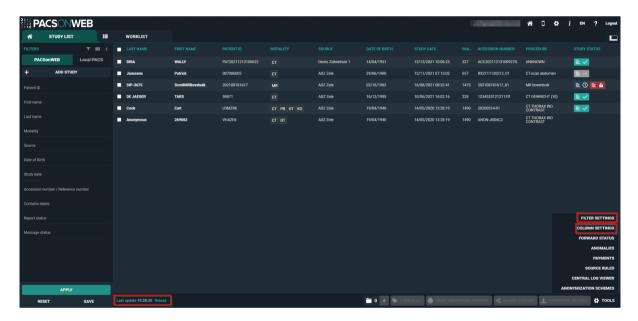
3. Click on the study using the scroll wheel

4.1 Overview page configuration

💡 **Tip:**

Refreshing the overview page

The overview page refreshes automatically every 5 minutes.

Configuring the explore page

You can configure the overview page according to your preference by clicking on the 'Functions' button.

You then have two options: **Filter settings** and **Column settings**.

Option 1: Filter settings

Here you can:

- Selection of the displayed filter fields:

   Remove a filter field by unchecking it.
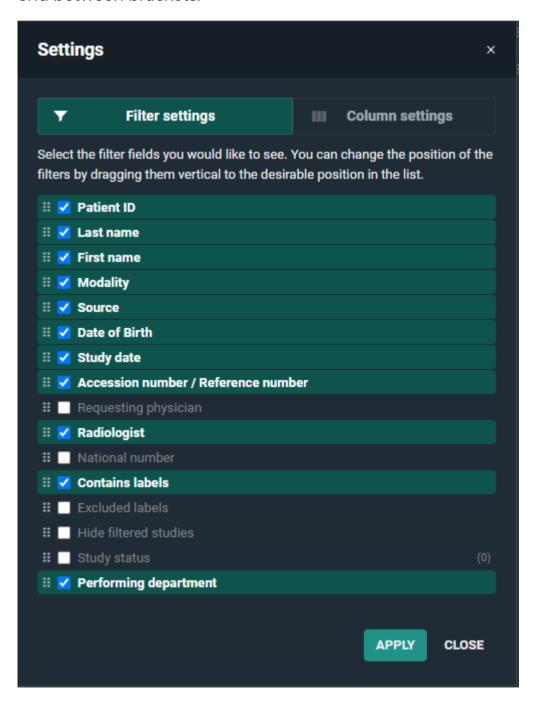
   Add a filter field by checking it.

- Change the order of the selected filter fields:

   To change the order of the filter fileds, click on a filter field and drag it to a higher or lower position on the list.

After implementing the desired changes, click on Apply .

If a value for a filter field has already been entered, the value will be shown at the end between brackets.

Option 2: Column settings

Here you can:
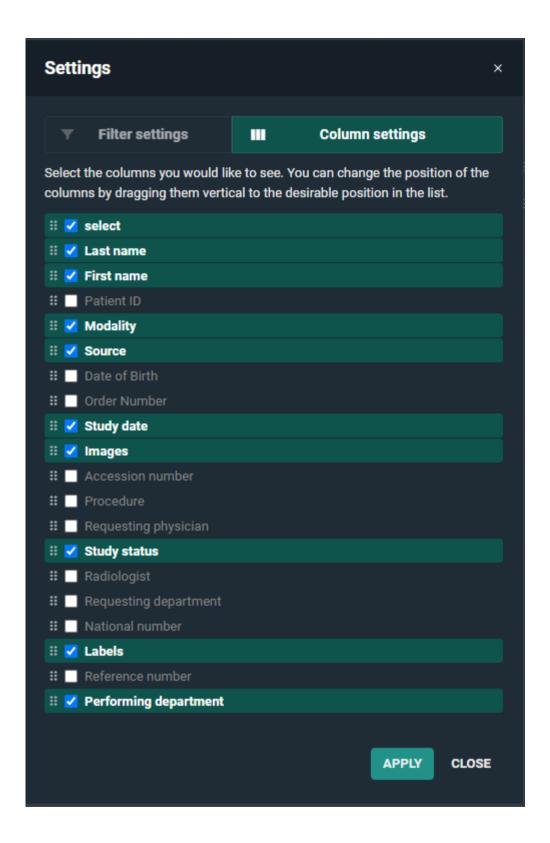
- Selection of the displayed columns:

  Remove a column by unchecking it.

  Add a column by checking it.

- Change the order of the selected columns:

  To change the order of the columns, click on a column and drag it to a higher or lower position on the list.

After implementing the desired changes, click on APPLY
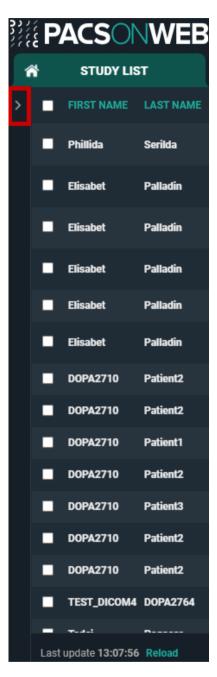
4.2 Use of filtering

You can use filtering to make it easier to find a study in your list.

If the filter fields are not visible, you must click on the grey arrow on the top left.

PACSonWEB can remember the values you have entered in the filter fields or have these automatically cleared when opening an exam or logging off.

This can be configured through the setting 'Remember filters in the explore page' in the 'General settings' section of My account (refer to page 84).

Important!

If you've used a filter during your PACSonWEB session and did not delete it after closing your session, the filter will automatically be opened when starting a new session.

Complete the fields you want to use for filtering. Filled out fields will be marked in bold.
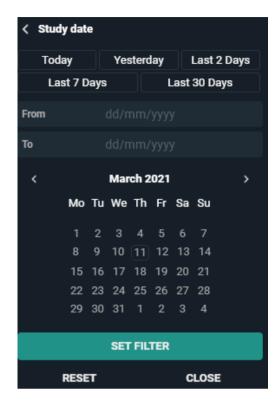
Click APPLY to start the search. During the search all filtering fields will be grayed out and locked for editing.

You can enter a value for all fields except for the fields 'Study date', 'Report status' and 'Message status'.

If you click on this field, a calendar will be displayed on which allows you to select a specific day or a period in time.

You can make use of the predefined filters (today, yesterday...) or select a specific day or period in time.

 If you want to search the studies for one specific day, fill out the same date in the 'From' and 'To' field.

 To search studies from a certain date until now, only fill out the 'From' field
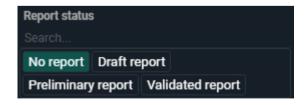
 To search studies up to a certain date, only fill out the 'To' field

 To search studies within a certain period, field out both fields.

Then click on **Set Filter**.

If you wish to delete the study date, click the **Reset** button at the bottom of the calendar and then click on the APPLY button at the bottom of the Filters section.

With 'Report Status' you can filter on one or several of the following statuses:

● Draft report

● Preliminary report

- Validated report

For Message status, you can filter on:

- All exams with read message **Read** (filter) (overview)

- All exams with an unread message **Unread** (filter) (overview)

- You can also select both options simultaneously resulting in a list of all studies with a message

You can also filter using predefined labels that are linked to studies, based on HL7 message values.

PACSonWEB allows to filter on both studies that contain certain labels or studies that do not have certain labels.

For the use of predefined labels, please contact Dobco Medical Systems.

In case certain studies for a radiology department are filtered, based on HL7 message values such as requesting department, modality, ... the studies are still listed in the explore page of source admins for reference.

Such studies are marked with the following icon in the study status field:

As a source admin, it is possible to hide filtered studies by activating the 'Hide filtered studies' switch

Filtered studies are not visible for non-source admins; this filter is therefore not available for regular users.
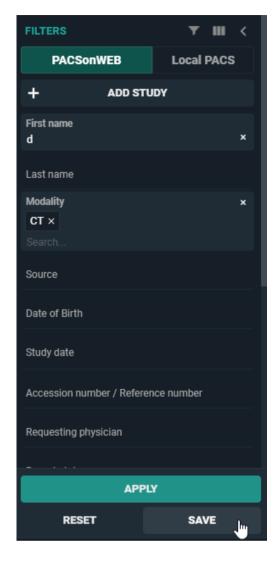
 Tip:

> If you use the same filter on a regular basis, you can save this for faster access later on.

To save a filter, enter the filter and then click on the **SAVE** filter button.

A pop-up window will be displayed where you can give the filter a name.

If you are the administrator of a group practice, you can choose to save the filter only for yourself or for all members of the group practice.

The filter will be saved under the filter fields under 'My Filters' and can be applied at any time with a simple click of the mouse.

To delete your saved or configured filter, click on the X on the right next to the filter.

⊘ Important!
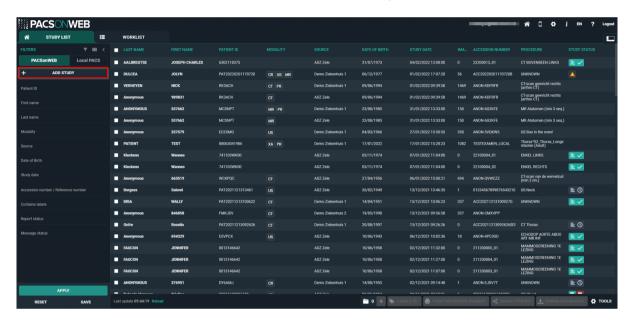
If the administrator of the group practice has created a filter for all members of the group, then only the administrator can delete it.

4.3 Adding a study

If you wish to view a study for which you are not the requesting physician, you can add this study to your list, provided that the patient has given you the reference number and his/her date of birth.

Then click on the **ADD STUDY** button in the top left corner.

A window will be displayed to enter the study's reference number and the patient's date of birth. Click on ADD STUDY .

The respective study will be opened immediately.

In case a single or multiple exams have been shared with a non-PACSonWEB user, there is no reference number but only a POW code (POW……).

You can add this exam in a similar way by entering the POW code in the reference number field and the date of birth for one of the related patients.

💡 Tip:

After you've added a study, this study will remain available in your own list for future reference.

In case you are an administrator of a group, you will have the additional option to add the exam for the entire group.

After adding the exam, it will be accessible for all members of the group.

Adding a single study:

When adding a single study, you can choose between the following options:

- ADD STUDY : the study will be added to the study list of the user
- ADD AND OPEN STUDY : the study will be added to the study list of the user and the study will be opened in the viewer
- ADD AN OPEN STUDY IN LIST : the study will be added to the study list with the reference number filled in as filter to show the added study

Adding a bucket (more than 1 study):

When adding a bucket, you can choose between the following options:

- ADD STUDIES the studies will be added to the study list of the user.
- ADD AND OPEN STUDIES IN LIST: the studies will be added to the study list with the reference number filled in as filter to show the added studies.

4.4 Upload Portal

The Upload Portal allows you to upload your medical images to your Hospital / Institution.

Overview of the Upload Portal page

1. Source: the Hospital/Institution from which you received the Upload code
2. Phone number from your Hospital/Institution
3. E-mail address from your Hospital/Institution
4. Hyperlink to the Upload manual
5. **Panel 1** – Select images you wish to upload (highlighted by default)
6. **Panel 2** – Verify patient and study information and upload images
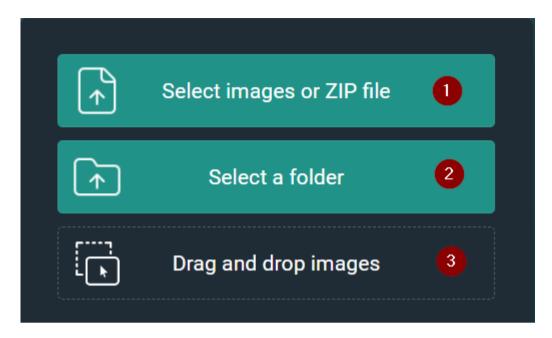
> 📝 **Note:**
>
> Panel 2 will only become available once you have added images to the Upload Portal

Select images you wish to upload
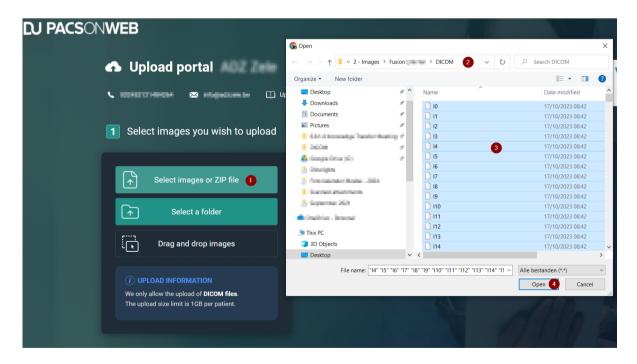
There are **3 different options** to **add your medical images** to the Upload Portal.

Follow the steps below to successfully upload your medical images to the Hospital / Institution:

Add multiple images using the button Select images or ZIP file

1. Click on the button **Select images or ZIP file**.
2. In the pop-up dialog, navigate to the folder, where your images are located.

3. In the folder select all files.
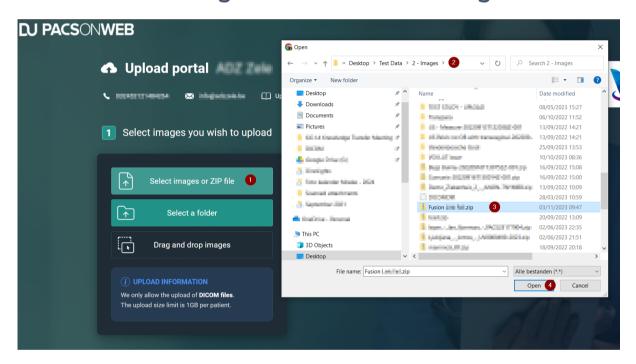
💡 **Tip:**

You can select all files by selecting one file and pressing **Ctrl + A** or by selecting the first file in the folder, scrolling down to the end of the files, pressing **SHIFT + left mouse**, and clicking on the last file.

4. Click on the 'Open' button in the pop-up dialog.

Your images will now be added to the upload portal
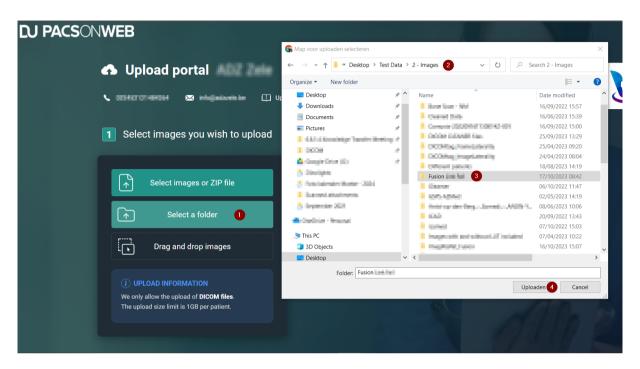
Add a ZIP file using the button Select images or ZIP file

1. Click on the button **Select images or ZIP file**.
2. In the pop-up dialog, navigate to the ZIP file that contains your images.
3. Select the ZIP file.
4. Click on the 'Open' button in the pop-up dialog.

Your images will now be added to the upload portal

Select a folder or Select a CD/DVD using the button Select a folder

1. Click on the button **Select a folder**.
2. In the pop-up dialog, navigate to the folder or CD/DVD drive, where your images are located.
3. Select the folder that contains your images
4. Click on the 'Upload' button in the pop-up dialog.

Your images will now be added to the upload portal
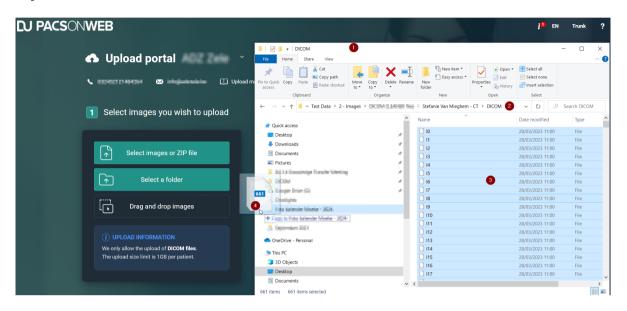
💡 Tip:

Sometimes your browser can give you an additional pop-up message when you select a folder, just click on 'Upload' again.

Drag and drop images using the Drag and drop images option

📝 **Note:**

> This is not a button, to use this option, simply drag and drop the selected files to the **Drag and drop images** option.

---
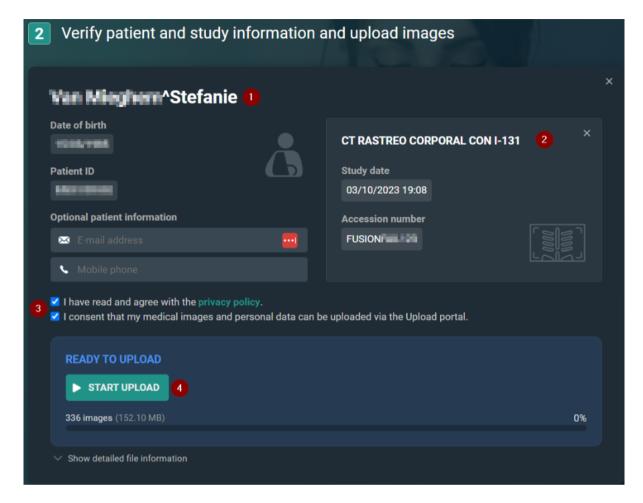
1. Open your file explorer.
2. Navigate to the folder, where your images are located, and open the content of the folder
3. In the folder select all files (see TIP)
4. With all the files selected (highlighted), hold down the left mouse button and drag the images onto this option in the Upload portal.

Your images will now be added to the upload portal

Verify patient and study information and upload images

Verify that you added the correct images to the Upload Portal

1. Check the patient information:
   a. Verify that you added the correct patient to the Upload portal.
   b. Optionally, you can enter your personal e-mail address or mobile phone number.

   > 📝 **Note:**
   >
   > This can be used as a reference or if the hospital needs to contact you.

2. Check the study information:
   a. Verify that you added the correct study to the Upload portal.
3. Agree with the privacy policy & consent to share your medical images with the hospital.
4. Click on the **START UPLOAD** button.

> 📝 **Note:**
>
> Do not close your browser during upload

The upload has started.

File upload status

- **Uploading**: upload is in progress
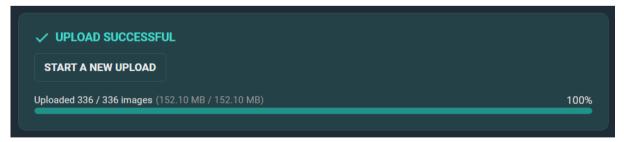
  - ○ **PAUSE UPLOAD**: You have the option to pause the upload.
  - ○ **CANCEL UPLOAD**: You have the option to cancel the upload.
- **Validating files**: scanning for malware.

  We perform a malware scan of the images, to ensure that no viruses have been uploaded that could infect the hospital/institution.

- **Upload successful**: Upload is complete. All files have been successfully uploaded to the Hospital / Institution.

Once the message 'Upload successful' appears in the panel, you can safely close the browser or start a new upload.

As a PACSonWEB Source User / Source Admin
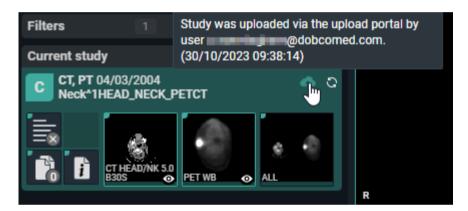
Once uploaded successfully, the studies can be found via the Worklist or the Explore Page. All uploaded studies will have the label '**Uploaded**'.

Filtering the list using the following search criteria: **'Contains Label' = 'Uploaded'**, will allow you to see all studies that have been uploaded via the Upload portal.

The workflow status of uploaded studies is automatically set to '**Finalized**' to avoid cluttering the radiologists' reading worklist.

When the study is opened in the viewer, an icon and accompanying message will be displayed indicating that the studies have been uploaded via the Upload portal.

By a user (no upload code needed)

The same information is available in the Study information panel of the study:

By a patient/ referring physician (via upload code)

The same information is available in the Study information panel of the study:

Uploaded study
Study was uploaded via the upload portal by a patient with upload code DEF345. (20/10/2023 14:03:00)

Verifying the content of the Uploaded study

As a PACSonWEB Source Admin, you can change the label linked to an uploaded study.
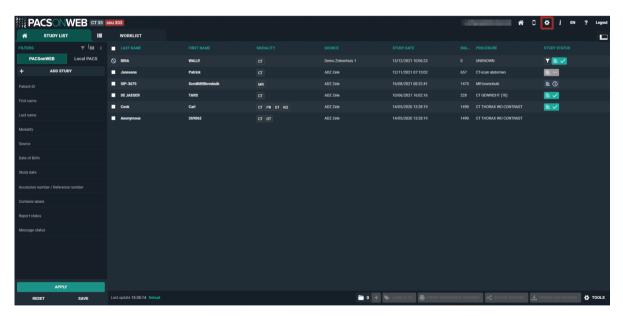
You can remove the label 'Uploaded'. You can link the new label 'Uploaded-Reviewed' (available by default in the system).

Additionally, all the same options are available as for other studies within PACSonWEB, e.g. merging with an existing patient, DICOM transfer of the study to an other PACS system.

4.5 User settings

From the user settings you can:
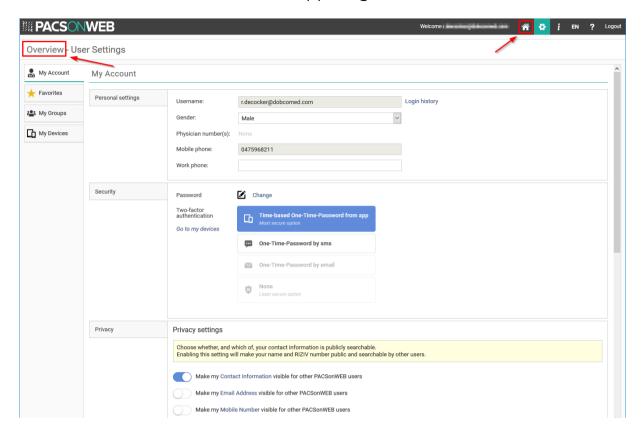
● edit your user information

● manage your favourites list

● administer your groups

● manage your linked devices for two-factor authentication

Click on the cogwheel ⚙ in the upper right corner. You will be taken to the User Settings page.

To return to the Overview list from this page, click on 'Overview' in the upper left corner or on the house icon in the upper right corner.

4.5.1 My account

Click on the cogwheel in the upper right of the page and you will be taken to the 'User Settings'.

Here you can see your account information:

1. Personal settings:

*Username: this is your e-mail address

Login History: displays an overview of the 100 latest login attempts

Gender: used to address correctly in automated mails

*Physician number(s): physician numbers, linked to the account

*Mobile phone: used to send OTP messages for activation, password reset and strong authentication

Work phone: can be used to contact you in case of issues
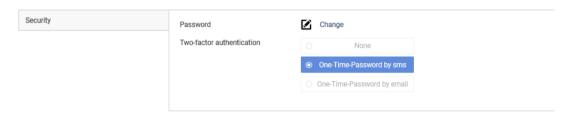
💡 **Tip:**

Fields, marked with ***** are Read-Only. To adapt, please contact the service desk.

2. Security:

If your account is not linked to a domain with active directory, you can change your password by clicking on the **Change** button.

If you have an active directory integration for your domain, this option will not be visible and you will need to contact your domain administrator to change your password.
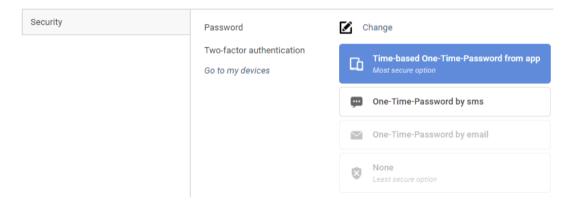
Enter your old password and enter your new password twice. Then click on the `Change password` button.

From now on your old password will no longer be valid and you must use the new password to log on.

For improved security, you can enable two-factor authentication on your account.

For more information, we refer to Two-factor authentication (refer to page 39)

In case strong authentication is mandatory in your region, you will forced to select a two-factor authentication method.

The option 'None' will not be available.

3. Privacy settings:

Here you can determine which information will be made public under **Favorites**.

- 'Make my Contact Information visible for other PACSonWEB users' is enabled by default.
- This means that if a user is searching for you using the **Find users** button under **Favorites**, only your name and RIZIV number will be visible.
- If you enable 'Make my E-mail Address visible for other PACSonWEB users', your e-mail address will also be visible.
- If you enable 'Make my Mobile Number visible for other PACSonWEB users', your mobile number will also be visible.
- If you deactivate everything, your account will not be searchable within PACSonWEB.
- When finished with selecting your privacy settings click `Save privacy settings`

4. Mappings
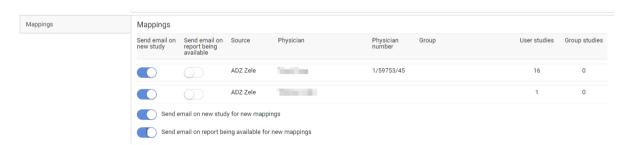
The maps provide an overview of which sources you automatically receive studies, on which name, which physician number is linked and with which group these are shared.

The switches at the front of each line determines whether or not you automatically receive an e-mail

- if a new study is available for the related source
- if the report is available for a study of the related source

The setting 'Send email on new study for new mappings' determines the default behavior to receive an e-mail when studies with images for a new source are available.

The setting 'Send email on report being available for new mappings determines the default behavior to receive an email when studies with a report for a new source are available.

Mappings							
Send email on new study	Send email on report being available	Source	Physician	Physician number	Group	User studies	Group studies
⬤	◯	ADZ Zele	▓▓▓	1/59753/45		16	0
⬤	◯	ADZ Zele	▓▓▓			1	0

⬤ Send email on new study for new mappings
⬤ Send email on report being available for new mappings

5. Report signature

> ⚠️ **Important!**
>
> This function only applies if you are authorised to edit the report in PACSonWEB.

Place your signature and select 'Save signature'.

If you edit a report in PACSonWEB, your signature will be automatically displayed when you click on 'Save' and 'Save and validate'.

4.5.2 Preferences

General

- Language selection: Here you can choose the language for mails that are sent to you.

  Warning: The interface will always show in the language of your browser.

- If you check 'Remember column sorting in the overview page', this sorting will be saved (Overview page configuration (refer to page 64)).

- Default start page: This setting determines if the user is redirected to the Study list or the Worklist after performing one of the following actions:

  o Logging into PACSonWEB

  o Clicking the home button (overview button)

  o Clicking the PACSonWEB logo
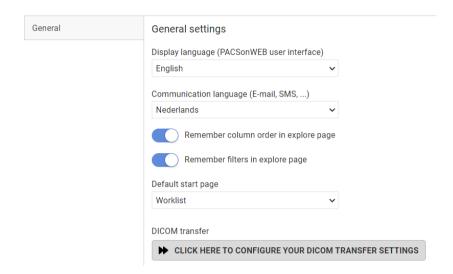
📝 **Note:**

> If the default start page is set to "Worklist" but the user does not has the permission to access the Worklist, the user will be redirected to the Study list instead.

- DICOM transfer settings. See DICOM Transfer (refer to page 96) for a detailed explanation.

Viewer

- Always load full image data for window level:

  The study page will by default load the full 16-bit images, instead of the 8-bit gray scale images which allows you to use the window level functionality instantly.

- Right click for function switch:

  When activated, this allows to switch in Image screen (refer to page 268) between the following functionalities by short clicks on the right mouse button:
  - Window Level
  - Scrolling
  - Stepless zoom
  - Pan

- Show prior studies in series picker:

  All prior studies for the current patient that are accessible to you, will be made available in the series picker automatically.

- Show relevant studies in a separate section of the series picker:

  When activated: 3 sections are available: Current study, relevant studies and other studies.

  When disabled: 2 sections are available: Current study and other studies

  Both options sort the studies chronological in order.

- Automatically start compare mode with most relevant prior study:

  This option is only available if 'Show Prior studies in series picker' has been enabled.

  When opening a study, the current study and the most relevant prior will be opened automatically in compare mode.

You can choose to do this only for a selection of modality types or, in case no specific modality types have been selected, it will be applied for all modality types.

- Show patient history bar:

  If selected, the patient history bar will be displayed at the bottom. See History (refer to page 188) for more information.

- Disable local image cache
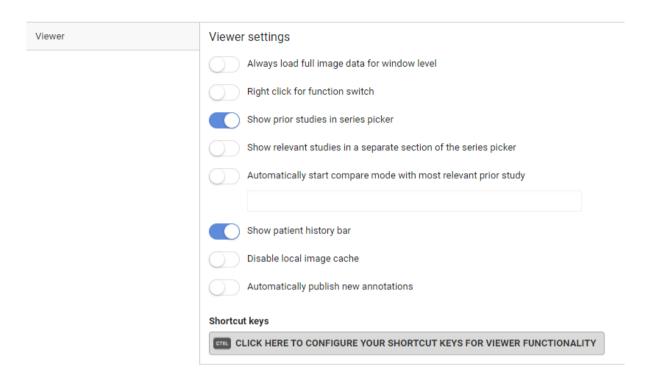
  Your institution may use the option Local image cache (refer to page 182) to make images available faster within the local network.

  If you are using PACSonWEB outside the local network, the local image cache is not reachable, hence it is preferred to disable this option.

- Automatically publish new annotations

  If enabled all drawn annotations are published immediately and can be viewed by everyone who has access to the study.

- Personal configuration of shortcut keys

  Click the button to open the tab to configure your personal shortcut keys.
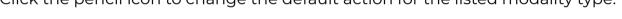
  A detailed explanation on how to do this, is available here: Personal configuration shortcut keys (refer to page 93)

Default mouse actions:

The default mouse actions can be customized for every modality type.

Click the pencil icon to change the default action for the listed modality type.

Click the plus icon to add the default mouse action for a new modality type.

The 4 actions that can be chosen are

- Pan
- Scrolling
- Stepless zoom
- Window level

When you have finished customizing the mouse actions, click on Save Viewer Settings .

To restore the original defaults click the cogwheel icon

Reporting

Settings:

This setting plays an audible beep when toggling speech recognition. The beep is never recorded in the audio fragment.

Make a sound when toggling speech recognition.

Style formatting:

You can predefine the formatting of 6 different heading levels that can be used when creating a report.

Report signature:

⚠️ **WARNING!**

This function only applies if you are authorized to edit the report in PACSonWEB.

Report signature image

UPLOAD IMAGE   **DELETE IMAGE**

💡 **Tip:**

The signature image should be a dark, high-contrast signature against a completely white background.
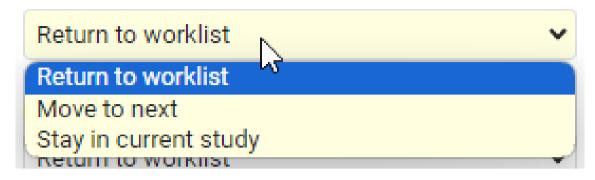
If you edit a report in PACSonWEB, your signature will be automatically displayed when you click on 'Save' and 'Save and validate'.

Workflow settings:

- Default action on ''save preliminary report''.
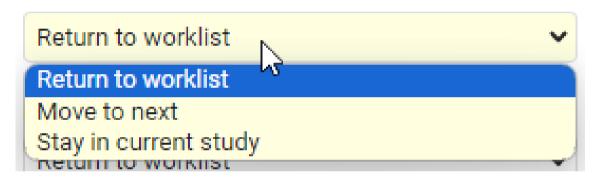
This will determine what happens after saving a report as preliminary.

- Default action on report "Finished".

  This will determine what happens after clicking to save a report as: Save and validate, Send for correction, Send for review, Send for approval or Back to author.

Behaviour of the workflow settings:

- Save as Draft: always **stay in study**
- Save as Preliminary: follow default action setting for preliminary report (see exceptions below)
- Save as Finalized: follow default action setting for report finished (see exceptions below)
  - Exceptions:
    - If user settings is Stay in current study: always **stay in study**
    - If user setting is Return to worklist:
      - If the user doesn't use a selection: always **return to the worklist**
      - If the user uses a selection: go to the **next item in the selection**
      - Unless it's the last study in the selection: then **return to the worklist**
    - If user setting is Move to next:
      - If the study is not the last study in the selection: go to the **next study in the selection**

■ If the study is the last study in the selection: **return to the worklist**

Activate report shortcuts also when report is not editable:

● When activated the shortcuts for report saving F8, Ctrl + F8 ... (See Reading workflow (refer to page 319)) can be used to change the study status when the report is not in Edit mode.

Custom window level presets:

Users can create personal window level presets based on modality type.

Following parameters have to be filled in to create a preset:

● Name for the preset

● Source selection

● Modality

● Window Width

● Window Level

● Shortcut key from 1 to 9

Click the plus icon to add the preset ➕ .

When the preset(s) have been added, click SAVE WINDOW LEVEL PRESETS .
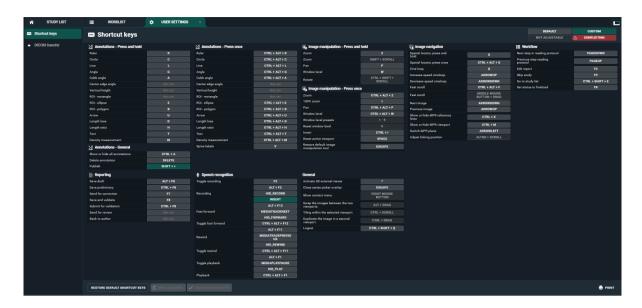
4.5.2.1 Personal configuration shortcut keys

There are 2 ways of accessing the configuration of the personal shortcut keys.

1. As mentioned in Preferences (refer to page 87) in the viewer section.

2. By hovering over the settings icon ⚙ and clicking on **Shortcut keys**

A new tab will be opened where all the shortcut keys are listed and can be configured.

The color code shows

- which shortcuts have the default value
- which shortcuts have been personalized
- which shortcuts have cannot be modified
- which shortcuts are conflicting (assigned 2x the same value)

Adding or changing a shortcut key

You can change a shortcut key to a personal one or add an extra shortcut key to an existing one. There can be up to 3 shortcut keys for 1 function.

Change a shortcut key

Click on the shortcut key you would like to change.
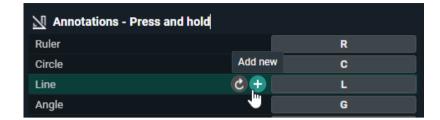
Define a new shortcut key.

Add a shortcut key

Hover over the functionality where you want to add an additional shortcut.
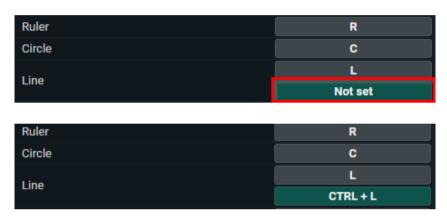
Click on the + icon

A new line will become available.

Click on 'Not set' and define the shortcut key.
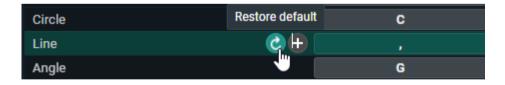
When you made changes to the configuration of your shortcuts, the following warning will be shown in the top of the screen:

In order to save your modifications click on `SAVE SHORTCUT KEYS`

Restore defaults shortcut keys:

When you want to change the default shortcut key for only 1 shortcut. Hover over the shortcut key and click on Restore default.

When you want to restore all default shortcut keys, click on the **RESTORE DEFAULT SHORTCUT KEYS** button.

Supported attributes:

- CTRL
- SHIFT
- ALT

Unsupported buttons:

- All numbers (0 ... 9)
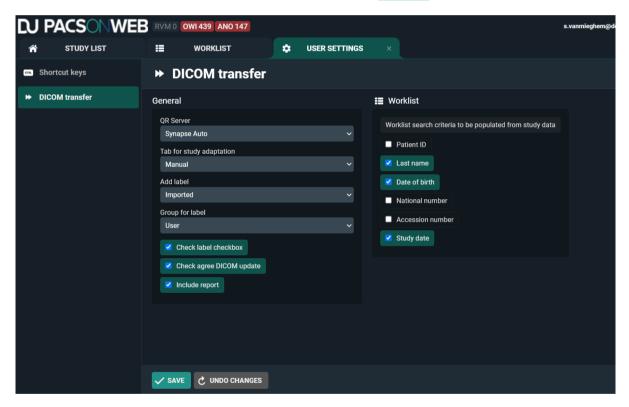
- F5
- F11
- F12

4.5.2.2 DICOM Transfer

There are 2 ways of accessing the configuration of the personal DICOM Transfer settings.

1. As mentioned in Preferences (refer to page 87) in the General settings section.
2. By hovering over the settings icon ⚙ and clicking on **DICOM transfer**

A new tab will be opened where all the personal settings can be configured.

When checked all the desired boxes, click on SAVE at the bottom.
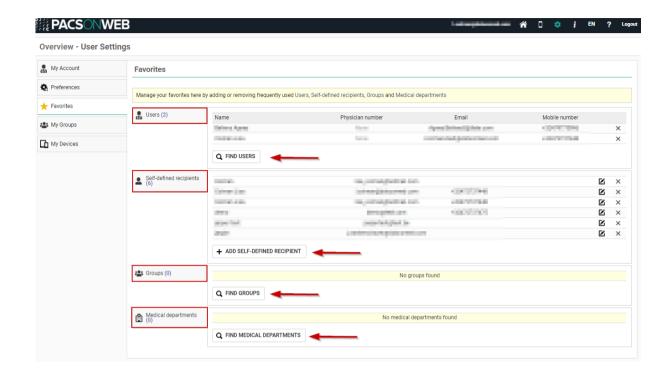
4.5.3 Favorites

Open the user settings by clicking on the cogwheel in the upper right corner of the page.

Then click on **Favorites** on the left side of the page. The following window will be displayed.

💡 **Tip:**

You can add frequently used PACSonWEB users, groups and Self-defined recipients via Favorites.
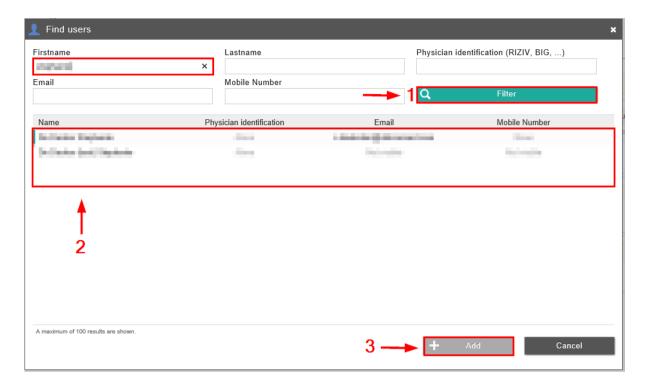
The advantage of this is that when you share a study you will immediately have the user's or group's information available. You only need to select the user or the group.

A favorite can be removed by clicking the cross icon at the end of the line.

1. To add a PACSonWEB user to your favourites, click on **Find Users**.

The following pop-up window will appear:

1. To search for a user, you can search by name, for example, and then click on `Filter`

2. Select the user you wish to add.

3. Click on **Add**.

This user has now been added to your address book under 'Users'.

2. To add a self-defined recipient (= a user who is not registered with PACSonWEB), click on **Add self-defined recipient**.

A pop-up window will appear:
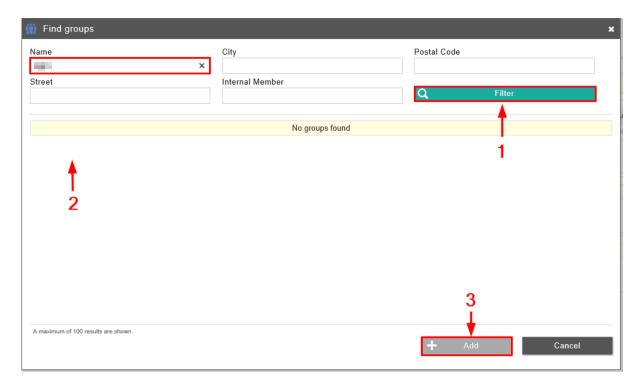
1. Complete the mandatory fields, marked with an asterisk *.

2. Click on `Add`

This recipient has now been added to your address book under 'Self-defined recipients'.

3. To add a group, click on **Find groups**.

The following pop-up window will appear:

1. Enter a few search criteria and select `Filter`.

2. You will see a list with groups that match your search criteria. Select the group you wish to add.

3. Click on **Add**.

You can now find this group practice under 'Groups'. The members of the group practice will also be displayed in the 'Groups' table.

4. To add a medical department, click **Find medical departments**.

A pop-up window will appear:

1. Enter the name of the department and click `Filter`

2. You will see a list of departments that match your search criteria. Select the department you wish to add.

3. Click **Add**.
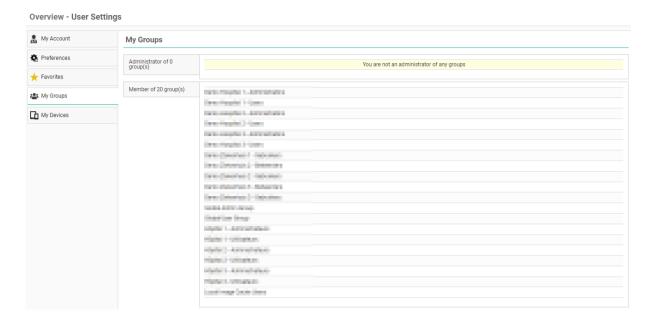
The department has now been added to your list of "Medical departments".

4.5.4 My Groups

Open the User Settings page by clicking on the cogwheel in the upper right corner of the page.

Then click on 'My Groups' on the left. The following window will be displayed:

Overview - User Settings

You will immediately see an overview of all the groups of which you are a member.

💡 **Tip:**
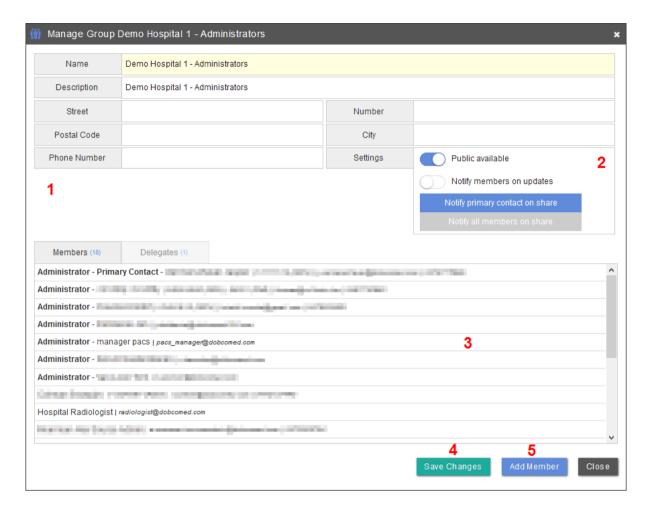
Being a member of a group means that, in addition to the studies you yourself have requested, you can also view the studies of other group members.

Administrator of group(s)

Under 'Administrator' you can see the groups for which you are the administrator. In the example above, the user is the group's administrator: '(9100 St. Nick) Demonstration group'.

This means that you can change both the group information as well as the group members and delegates. You do this by clicking on the group. The following window will be displayed:

1. You can supplement these fields with information about the group practice.
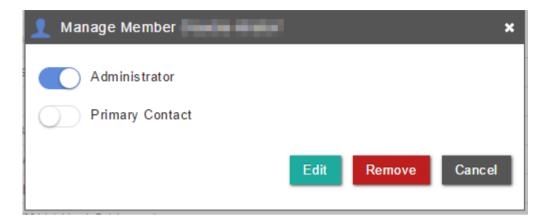
   Here you can choose to make your group available to the public. This means that your group can be searched for, for example in order to share a study with the group (Text blocks (refer to page 105)).

   If you click on 'Notify members of updates', every member of the group will receive an e-mail when something is changed on the group.

   You can also configure the default setting to notify all members or only the primary contact in case an exam is shared with the group.

   The following window will be displayed if you click on a member:

Here you can make the group member a contact person and administrator of the group practice. Click on the **Edit** button to save the changes.
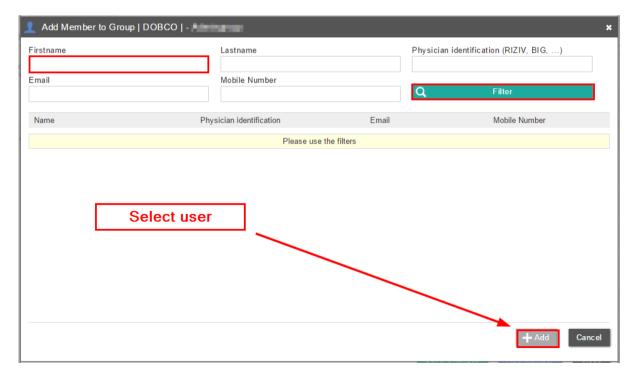
 Important!

Because this concerns your own account, you cannot change the administrator status. If you wish to change this nevertheless, please contact your local PACSonWEB support.

4. Click on **Save changes** to save your changes.
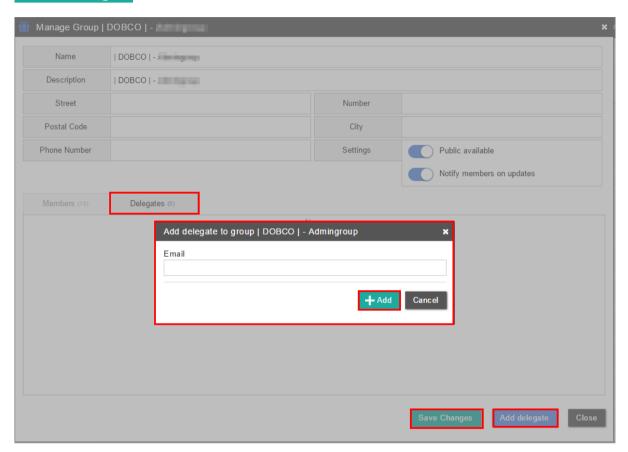
   If you want to add a new physician to the group practice, click on **Add member**.

Enter several search criteria and then click on `Filter` The PACSonWEB users who fit your search criteria will be displayed. Select the user you want to add and click on **Add**.
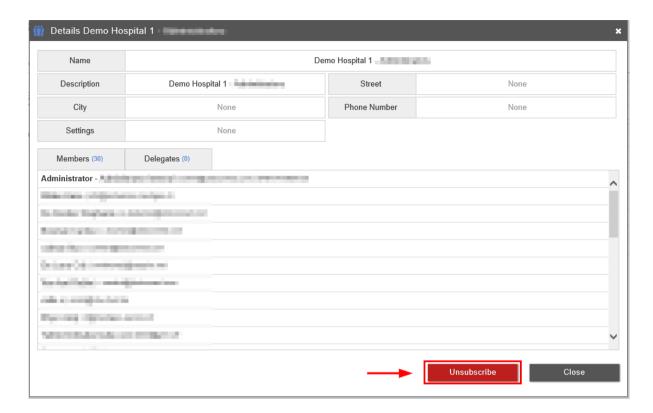
If you want to add a delegate, click on 'Delegates' and then on **Add delegate**.

Enter the e-mail address of the delegate and then click on `Add`. Then click on `Save changes`.

Member of group(s)

Here you will see a list of all the groups to which you belong. The following window will be displayed when you click on a group:

Here you can see the information of the group and the group members.

If you no longer belong to this group practice and wish to unsubscribe from it, click on **Unsubscribe** . A window will appear:

- If you enable **Group retains access to my old studies**,

  the members of the group practice will still be able to view your studies from the period that you belonged to the group practice.

- If you enable **Keep my old studies**,

  you will still be able to view your studies from the period that you belonged to the group practice. This is checked by default.

- If you click on **Unsubscribe**

  you will no longer be a member of the group practice as of that moment.
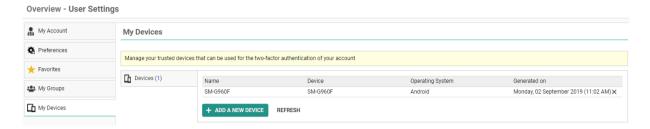
4.5.5 My devices

Click on the cogwheel in the upper right of the page and you will be taken to the 'User Settings'.

Then click on 'My devices' on the left side of the page.

An overview is displayed of all devices that have been linked to your PACSonWEB account for two-factor authentication through an authenticator app (refer to page 41)

Overview - User Settings
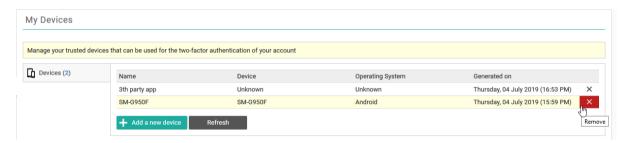
From this screen, you can link additional devices by clicking Add a new device

How to link a device can be found on Two-factor authentication through Authenticator app (refer to page 41).

💡 **Tip:**

You can link up to 5 devices simultaneously.

If you want to unlink a device, simply click the 'X' icon at the end of the related entry.

In case you are unlinking the last trusted device, your method for strong authentication will automatically be converted to 'OTP by SMS' or, in case no mobile number is registered, to 'OTP by email'.

4.5.6 Text blocks

Creating a Text block:

Text blocks can be created in 2 different ways:

● In the user settings

● In the viewer report pane
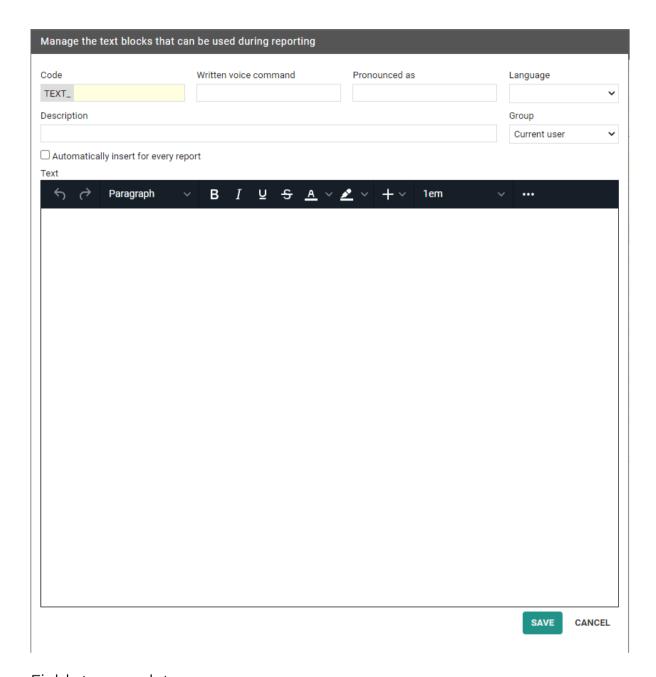
<u>User settings</u>

Open the tab "Text blocks" in the User Settings ⚙ .

Click " Add new text block " to create a new text block.

The following window will open:

Manage the text blocks that can be used during reporting

Code

TEXT_

Written voice command

Pronounced as

Language

Description

Group

Current user

☐ Automatically insert for every report

Text

| ↶ ↷ | Paragraph ⌄ | **B** *I* <u>U</u> S̶ A ⌄ ✎ ⌄ + ⌄ | 1em ⌄ | ••• |

SAVE CANCEL

Fields to complete:

- Code: used as shortcut when typing the report
- Written voice command: voice command for inserting text block
- Pronounced as: written version of how to pronounce the voice command
- Description: description for the text block (not mandatory)
- Group: save the text block for current user or a group (admins only)
- Text: the report text

For the written voice command only the following characters are allowed: a-zßàáâãäåæçèéêëìíîïðñòóôõöùúûüýþÿœšž. If an unsupported character is used, a warning will be displayed at the bottom of the page.

⚠️ **Important!**

If a textblock exists for a user AND a user group, the user specific text block will be used.

If the same code exists for multiple user groups, the first text block will be used.

💡 **Tip:**

You can insert a specific text block for every report you create by ticking the "Automatically insert for every report" option.

Variables:

The variables Diagnostic Question and Clinical Information can be added to the report.

These will be updated with the actual information of the study. If no value can be found, nothing is inserted in the report.
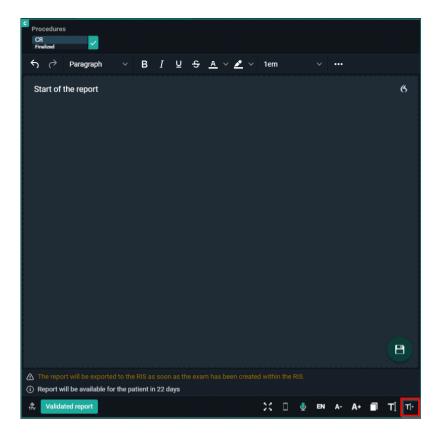
Viewer

A new text block can also be created from the report window in the viewer.

Click on the T+ icon in the corner of the report pane to open the same window as described above. Fields must be completed in the same way.

Inserting a Text block

Text blocks can be inserted in a report in multiple ways:
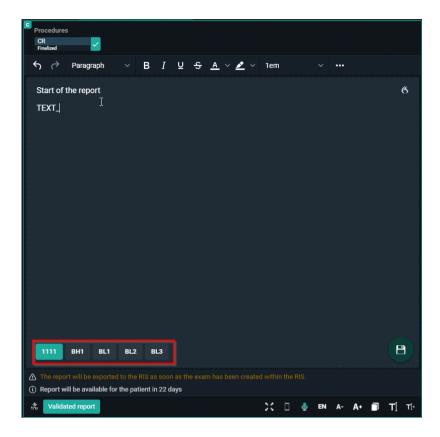
- By dictating the speech command (speech)
- By typing the text block code in the report
- By selecting a text block code from the list

Speech: Start with dictating the command 'insert' followed by the text as saved in the 'pronounced as' section of the text block.

Typing: Start with the prefix TEXT_ and then the code of the text block. At the bottom of the report window the first 5 results are displayed in alphabetical order.

Entering will insert the first text block from the list. The other text blocks can be selected by clicking or typing more characters of the text block code.
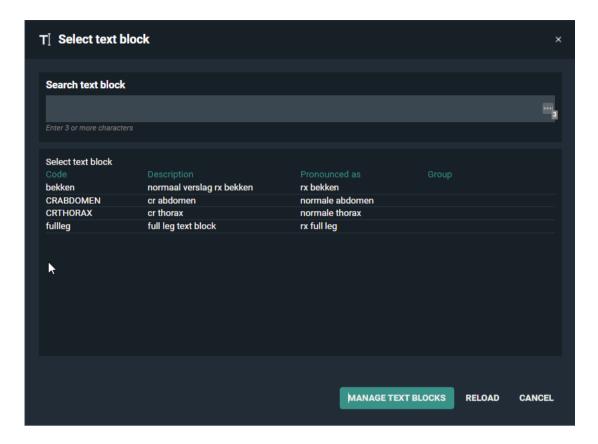
Text block button: Click on the text block button to open the overview of the text blocks the user has access to.

Search a text block by entering 3 or more characters, click on the text block to insert it.

Clicking "Manage text blocks" will redirect the user to the user settings page.

4.6 Additional access conditions

It may occur that there are certain studies in your explore list that are not, by default, accessible.

This is caused by one of the following additional access conditions:

● Strong authentication (refer to page 110)

● Break-The-Glass (refer to page 111)

● Payment required (refer to page 114)

How to gain access to such exams is explained on the related page in the user manual.

4.6.1 Strong authentication
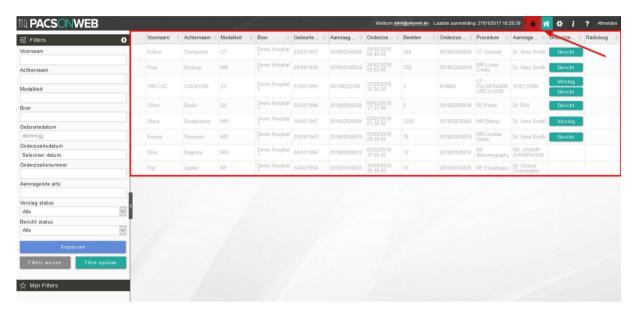
The radiology departments have the possibility to enforce strong authentication to access their studies (e-ID, two-factor).

In case you are logged on to PACSonWEB without strong authentication, such exams will not be accessible / selectable.

An indicator on top of the page will light up in red to indicate that strong authentication is required.

By clicking this indicator, it is possible to login using strong authentication.
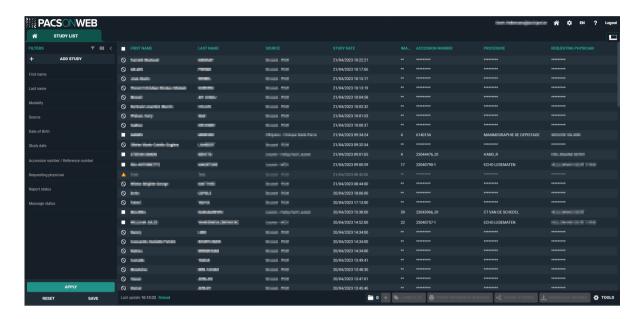
4.6.2 Break-The-Glass

A radiology department may allow studies to be visible, by default, to the requesting physician only .
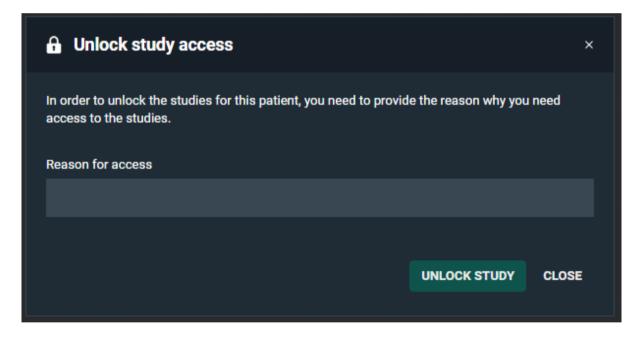
If you are part of a user group or group practice and you have been granted access to a study requested by a colleague, the corresponding line in the explore page will be grayed out with only the patient's name, date of birth and study date visible.

Access to such a study is only possible by specifying the reason why access is required.

To access the study, simply click on the corresponding line in your list, enter the reason why you need access and click on Unlock study

💡 **Tip:**

> After entering the reason, the study will be available for 7 days, unless specified otherwise by the related radiology department.

At the bottom of the study page, the History (refer to page 188) of exams for the same patient is displayed.
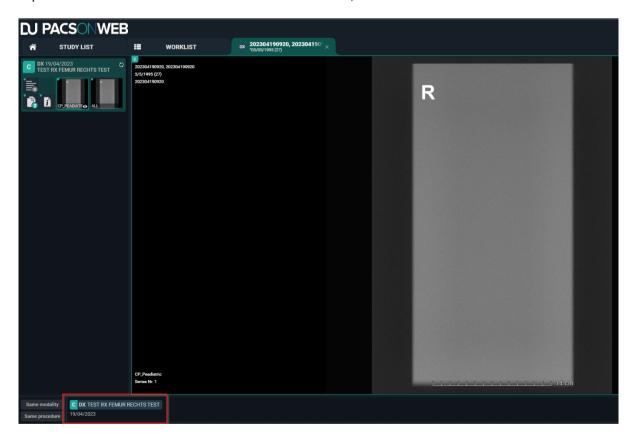
Here you will find studies for which you already have access, but also studies that require you to enter a reason for gaining access.

By clicking the label 'x locked studies' a pop-up will appear (cf) . Enter the reason why you need access to the studies and click Unlock study

Upon submission of the reason for access, the related studies become visible.

⚠ Important!

> If you are an administrator for the related radiology department, you can consult who has accessed the exam, when it was accessed and for what reason.
>
> For more information, see Access to the study (refer to page 247).

4.6.3 Payment required

For patients that are logged on but need to pay for access to their studies, all unpaid studies will be grayed out.

Payment can be initiated by clicking the Bank Card icon.

	Firstname	Lastname	Source	Study date	Images
🕐	Natasha	Mascara	Demo Ziekenhuis 1	17/02/2016 22:12:00	169
🖃	Natasha	Mascara	Demo Ziekenhuis 1	17/02/2016 20:09:00	4
🖃	Natasha	Mascara	Demo Ziekenhuis 1	17/02/2016 20:08:56	1
🖃	Natasha	Mascara	Demo Ziekenhuis 1	17/02/2016 20:08:26	1

A "Payment required" pop-up window will be shown. The study will be available to you, once a payment has been made.

By clicking Make payment you are redirected to a payment page where you can select to pay by credit card (MasterCard or VISA) or Vipps.

After payment you are redirected to the explore page and studies are now accessible.

A radiology department can decide that a study should not yet be accessible for the patient.

In this case, the study is listed grayed out in the explore page with a clock icon in front.

	Firstname	Lastname	Source	Study date	Images
☐	Natasha	Mascara	Demo Ziekenhuis 1	17/02/2016 20:09:00	4
☐	Natasha	Mascara	Demo Ziekenhuis 1	17/02/2016 20:08:56	1
☐	Natasha	Mascara	Demo Ziekenhuis 1	17/02/2016 20:08:26	1
🕐	Natasha	Mascara	Demo Ziekenhuis 1	17/02/2016 22:12:00	169

4.7 Sharing studies from the overview page

It is possible to share one or more studies from de overview page.
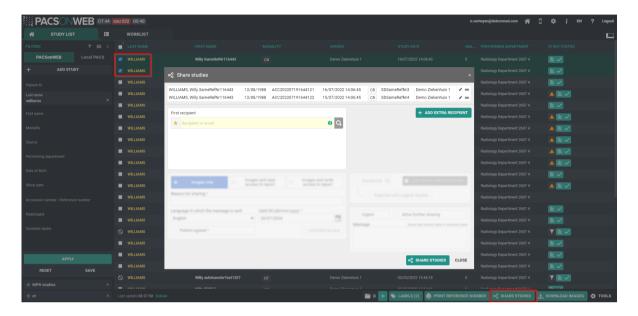
Check the studies that you wish to share and click on 'Share studies'.

> ⚠️ **Attention:**
>
> Sharing multiple studies at once is only possible if all studies originate from the same source.

A pop-up window will be displayed with the studies that you wish to share.

You can:

- Share studies with users (refer to page 116)
- Share studies with groups (refer to page 124)
- Share studies with a radiology department (refer to page 132)
- Share studies with a self-defined recipient (refer to page 140)

You can share studies with up to 3 recipients.

In case no two-factor authentication is used when sharing the study, the patient name is masked in the mail.

For the first and last name only the first letter is shown; all other letters are replaced by '****'.

> ⚠️ **Important!**
>
> In case a study is shared multiple times with the same user, the most extensive rights are retained.
>
> This applies both to the expiration time for access to the study as the extent of access rights, i.e. read or read and share.

💡 **Tip:**

All mails that are sent automatically when sharing an exam can be customized per sending radiology department.
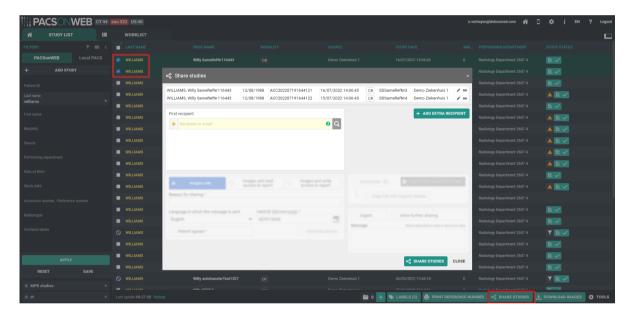
Please contact the service desk to have this configured.

4.7.1 Sharing studies with a user

This instruction shows you how to share a study with a user 👤.

STEP 1: Select the studies that you wish to share
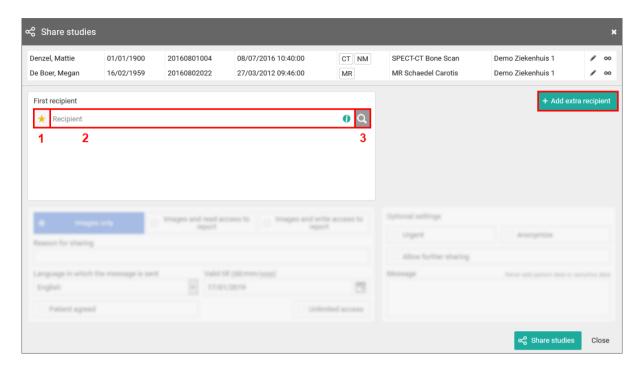
STEP 2: Select your recipient(s)

You can select a recipient by :

1. clicking the 'favorites' icon ⭐ .

2. filling out criteria with the field 'recipient'.

3. clicking the 'search' icon.

You can add additional recipients by clicking `Add extra recipient`.

1. Favorites ⭐ :

By clicking the icon, your list of favorites will be shown.

Clicking a favorite will automatically add this user as a recipient.
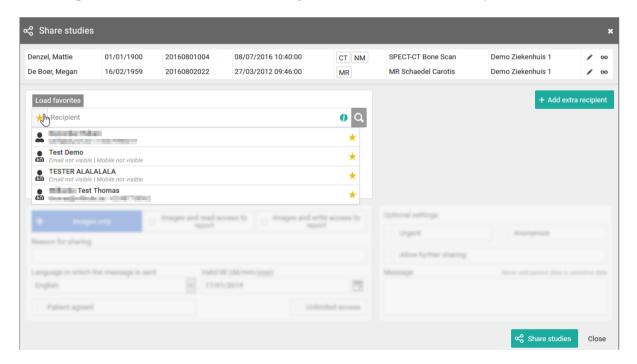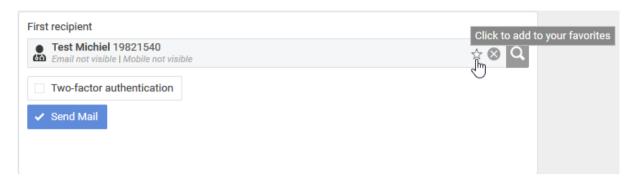
You can add favorites to your list:

- o from your address book (refer to page 96)

o by selecting a user and highlighting the star icon:

 Important!
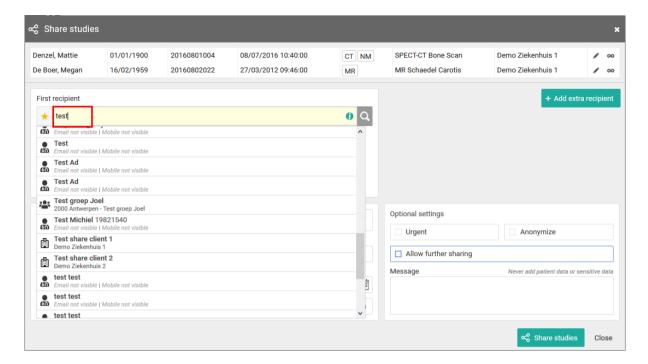
Be aware: the user will be added to your list of favorites, after the share action has been completed.

---

2. Searching for a recipient

From the search bar, you can look up a user by:

- First name
- Last name
- Physician number (RIZIV, BIG, INSEE, HIN, UCGN, PNB …)
- Mobile number (if public)
- Email address (if public)
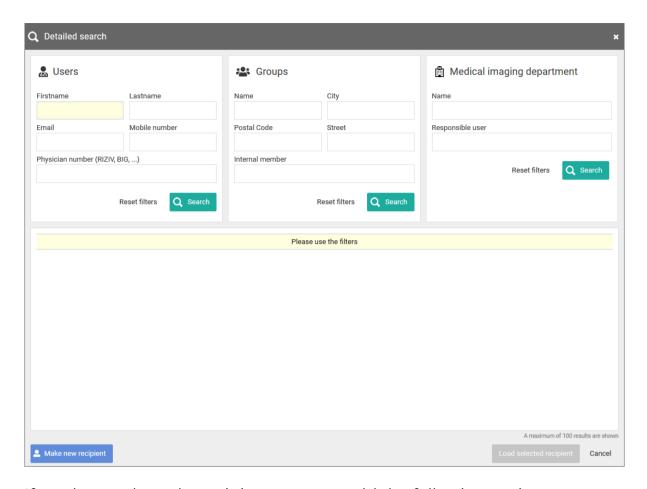
3. Detailed search

From this screen, you can use specific selection criteria to look up and select the desired user, group or radiology department as recipient.

If you have selected a recipient, you can add the following options:

● two-factor-authentication

   In case the recipient wants to consult the shared study, a one-time-password will be sent by text message to the registered mobile number and needs to be entered before access is given.

⚠ **Important!**

   If the user gives an erroneous OTP 5 times in succession, the bucket is blocked.

   The bucket can be unlocked by the Service desk or an admin user of the sending radiology department (see Status Forwarding (refer to page 164))

● Send Mail:

   The user with whom the study was shared, will receive an email with the following information:

   o that an exam has been shared

   o who shared the exam

o which exam was shared (patient initials, description of the exam, date of the exam) + a link to open the exam

o the message in case this was entered by the sender when sharing

STEP 3: Parameters for sharing

1. When sharing a study with a user, you can opt for

- Images and read access to the report
- Images and write access to the report

💡 **Tip:**

The option 'Images only' is not available when sharing with a user.

2. You need to register a 'Reason for sharing'. The reason is not communicated to the recipient but is mandatory and will be registered in PACSonWEB.

3. The language, used for sending the message:

By default the language of the first recipient is selected but you can change the language by using the drop down menu.

⚠ **Important!**

In case you select multiple recipients with different languages, the mail is sent to all recipients, using the language of the first recipient.

If however, the majority of the recipients have the same language, this is the language taht will be selected automatically.

4. Valid till (dd/mm/yyyy)

By default the validity period is set to 1 month but you can change this by:

- filling out the desired time period manually.
- selecting a date, using the calendar icon.
- selecting the option **Unlimited access**.

Tip:

The default validity period can be configured for each sending radiology department. PACSonWEB offers the possibility to define a default or maximal validity period.

The option 'Unlimited access' can also be deactivated on a source level.

In case a specific configuration is desired, please contact the service desk.

5. Patient Agreed

The "Patient agreed" checkbox must always be checked, because without the patient's consent the study may not be shared.

6. Add label

With this option a label can be attached to the study.

Enable the checkbox to select a label. Additionally the label can be set for the user or a group.

7. Optional settings

- 'Urgent' :

  This adds 'Urgent' to the subject of the related mail

- 'Anonymize' :

  This replaces the name of the patient:

  o The first name is replaced by a number

  o The last name is replaced by Anonymous

⚠️ **Important!**

The report for an anonymized study will never be accessible, even if you selected the option 'Images and read access on the report' or 'Images and write access on the report'.

● Allow further sharing

Activating this option allows the recipient to share the study further with other recipients

● Message

If you add a message, it is added to the mail, sent to the recipient and it is visible to the recipient when opening the study in PACSonWEB.

💡 **Tip:**

When sharing a study with a user the same values for the following parameters are selected automatically with the next user sharing operation:

● Two-factor authentication
● Send mail

STEP 4: Confirmation

A pop-up window with the information about the shared study will be displayed.

● With the button **Copy this information**, the content of the pop-up is copied to the clipboard so e.g. it can be pasted into your own email.
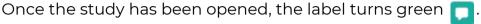
- In case 'Send e-mail' is checked, the recipient will receive an e-mail with a link to the study and the message that you have shared a study with him/her.
- The exam will be available in the overview list of the receiver for the time period as entered by the sender.
- If the sender has specified a message this will be indicated on the explore page with a separate label "Message".

  In case the study hasn't been opened yet, the label 'Message' will be red .

  Once the study has been opened, the label turns green .

LAST NAME	FIRST NAME	MODALITY	SOURCE	STUDY DATE	IMA...	PERFORMING DEPARTMENT	STUDY STATUS
Rabassa	Ilka	CT	Demo Ziekenhuis 1	18/05/2022 09:59:27	2	Radiology Department	
Ashford	Liesa	US	Demo Ziekenhuis 1	18/05/2022 09:40:33	4	Radiology Department 2607 4	
Ashford	Liesa	MR	Demo Ziekenhuis 1	18/05/2022 09:40:33	1	Radiology Department 2607 4	

- The message is available within the exam as a separate series.
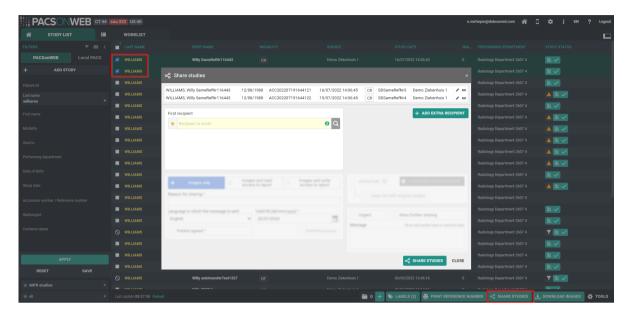
- Using Share again you can share the same set of studies again with another recipient.

4.7.2 Sharing studies with a group

In this instruction we will show you how to share a study with a PACSonWEB group
 .

STEP 1: Select the studies that you wish to share
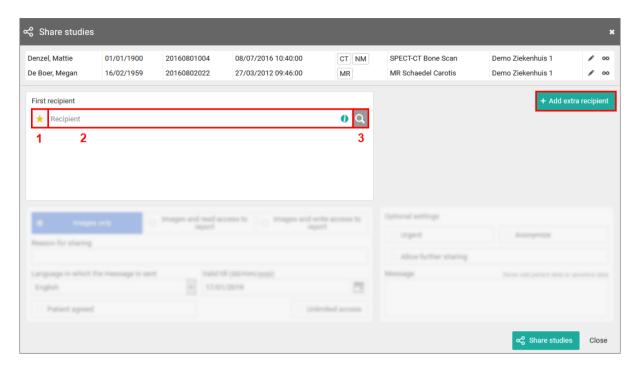
STEP 2: Choose your recipients

You can select a recipient by:

- clicking the 'favorites' icon ⭐

- filling out criteria with the field 'recipient'
- clicking the 'search' icon.

You can add additional recipients by clicking the button `Add extra recipient` .

1. Favorites ⭐ :

By clicking the icon, your list of favorites will be shown.

Clicking a favorite will automatically add this group as a recipient.

You can add favorites to your list:
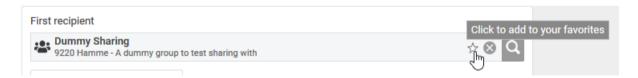
- from your address book (refer to page 96)
- by selecting a group and hightlighting the star icon:

⚠️ **Important!**
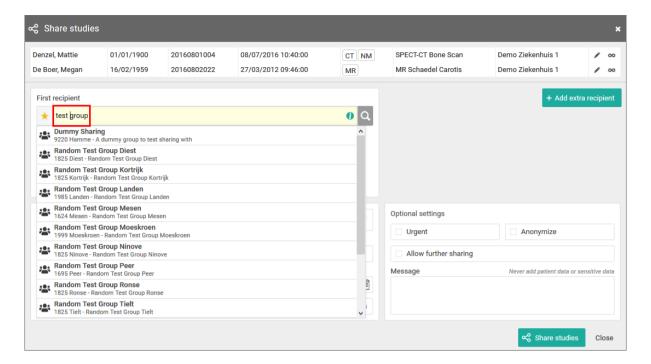
Be aware: the group will be added to your list of favorites after the share action has been completed.

2. Searching for a recipient

In the search bar you can lookup groups by searching:

- the name of the group
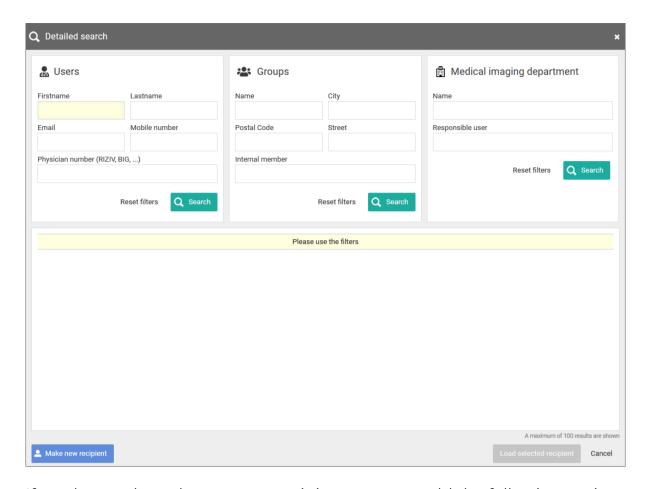
3. Detailed search

From this screen, you can use specific selection criteria to look up and select the desired user, group or radiology department as recipient.

If you have selected a group as recipient, you can add the following options:

● two-factor-authentication

In case a member of the group wants to consult the shared study, a one-time-password will be sent to the registered mobile number and needs to be entered before access is given.

⚠ Important!

If the user gives an erroneous OTP 5 times in succession, the bucket is blocked.

The bucket can be unlocked by the Service desk or an admin user of the sending radiology department (see Status Forwarding (refer to page 164))

● Send mail

All users or only the selected user of the group with whom the study was shared, will receive an email with the following information:

○ that an exam has been shared

○ who shared the exam

o   which exam was shared (patient name initials, description of the exam, date of the exam) + a link to open the exam

o   the message in case this was entered by the sender

Step 3: Parameters for sharing

1. When sharing a study with a user, you can opt for

- Images and read access to the report
- Images and write access to the report

💡 **Tip:**

The option 'Images only' is not available when sharing with a group.

2. You need to register a 'Reason for sharing'. The reason is not communicated to the recipient but is mandatory and will be registered in PACSonWEB.

3. The language, used for sending the message:

By default the language of the primary contact of the group is selected but you can change the language by using the drop down menu.

🛑 **Important!**

In case you select multiple recipients with different languages, the mail is sent to all recipients, using the language of the first recipient.

If however, the majority of the recipients have the same language, this is the language that will be selected automatically.

4. Valid till (dd/mm/yyyy)

By default the validity period is set to 1 month but you can change this by:

- filling out the desired time period manually.
- selecting a dte, using the calendar icon.
- selecting the option 'Unlimited access'.

💡 Tip:

The default validity period can be configured for each sending radiology department. PACSonWEB offers the possibility to define a default or maximal validity period.

The option 'Unlimited access' can also be deactivated on a source level.

In case a specific configuration is desired, please contact the service desk.

5. Patient Agreed

The "Patient agreed" checkbox must always be checked, because without the patient's consent the study may not be shared.

6. Add label

With this option a label can be attached to the study.

Enable the checkbox to select a label. Additionally the label can be set for the user or a group.

7. Optional settings

- 'Urgent':

  This adds 'Urgent' to the subject of the related mail

- 'Anonymize':

  This replaces the name of the patient:

  o   The first name is replaced by a number

  o   The last name is replaced by Anonymous

![Dedalus logo]

ⓘ **Important!**

The report for an anonymized study will never be accessible, even if you selected the option 'Images and read access on the report' or 'Images and write access on the report'.

- Allow further sharing

  Activating this option allows the recipient to share the study further with other recipients

- Message

ⓘ **Important!**

Unlike when sharing with a user, the message is not available as a separate series within the exam and no label 'message' is added.

It is added to the mail, sent to the recipient.

💡 **Tip:**

When sharing a study with a group the same values for the following parameters are selected automatically with the next user sharing operation:

- Two-factor authentication
- Send mail

STEP 4: Confirmation

A pop-up window with the information about the shared study will be displayed.
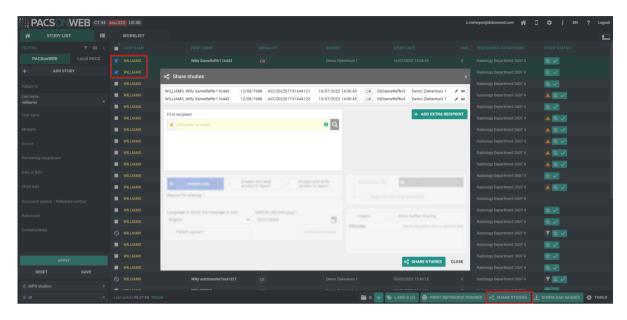
- With the button **Copy this information**, the content of the pop-up is copied to the clipboard so e.g. it can be pasted into your own email.
- In case 'Send e-mail' is checked, the recipient will receive an e-mail with a link to the study and the message that you have shared a study with him/her.
- The exam will be available in the overview list of the receiver for the time period as entered by the sender.
- Using `Share again` you can share the same set of studies again with another recipient.

4.7.3 Sharing studies with a radiology department

In this instruction we will show you how to share a study with a radiology department 🏢 .

STEP 1: Select the studies that you wish to share
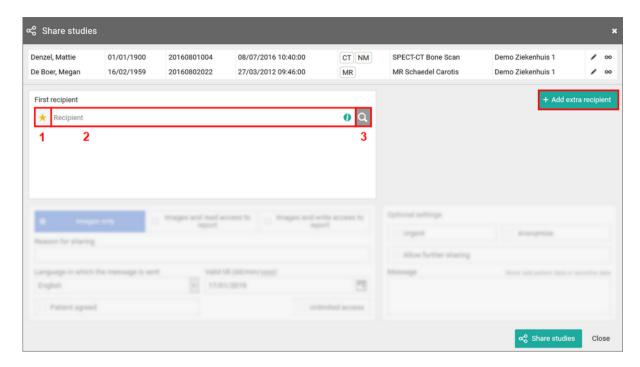
STEP 2: Choose your recipients

You can select a recipient by:

- clicking the 'favorites' icon ⭐

- filling out criteria with the field 'recipient'
- clicking the 'search' icon

You can add additional recipients by clicking the button Add extra recipient .

1. Favorites ⭐ :

By clicking the icon, your list of favorites will be shown.

Clicking a favorite will automatically add this group as a recipient.

You can add favorites to your list:

● from your address book (refer to page 96)
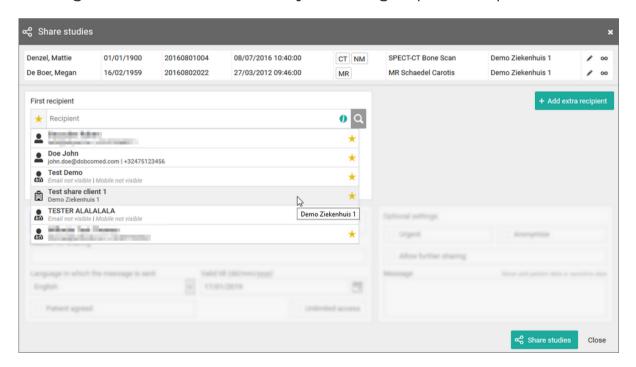
- by selecting a group and highlighting the star icon:

Important!
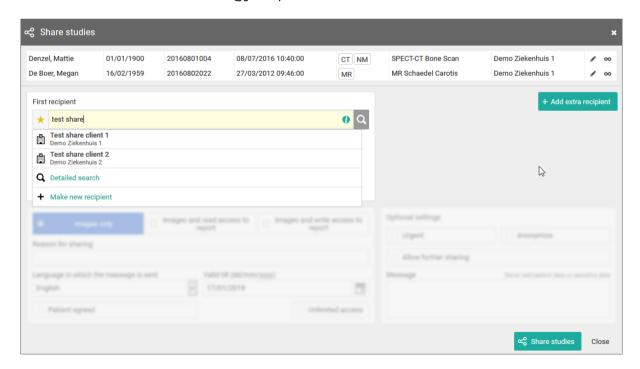
> Be aware: the radiology department will be added to your list of favorites after the share action has been completed.

2. Searching for a recipient

In the search bar you can lookup a radiology department by searching:

- the name of the radiology department
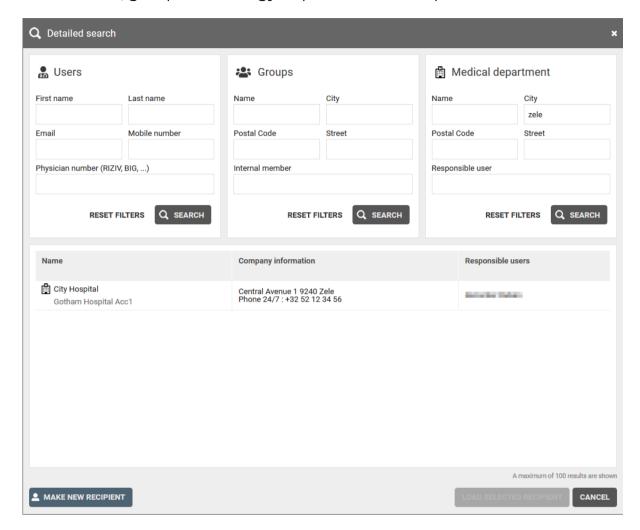
When hovering over the information icon , additional information on the selected medical department is displayed.

3. Detailed search

From this screen, you can use specific selection criteria to look up and select the desired user, group or radiology department as recipient.

If you have selected a group as recipient, you can add the following options:

● two-factor-authentication

In case a member of the radiology department wants to consult the shared study, a one-time-password will be sent to the registered mobile number and needs to be entered before access is given

⊘ **Important!**

If the user gives an erroneous OTP 5 times in succession, the bucket is blocked.

The bucket can be unlocked by the Service desk or an admin user of the sending radiology department (see Status Forwarding (refer to page 164))

● Send mail

The mail will be sent to all users of the radiology department that are marked as "responsible" and have indicated that they want to receive this type of email. The mail contains the following information:

o   that an exam has been shared

o   who shared the exam

o   which exam was shared (patient name initials, description of the exam, date of the exam) + a link to open the exam

o   the message in case this was entered by the sender

Step 3: Parameters for sharing

1. When sharing a study with a radiology department, you can opt for

- Images and read access to the report

- Images and write access to the report

💡 **Tip:**

The option 'Images only' is not available when sharing with a radiology department.

2. You need to register a 'Reason for sharing'. The reason is not communicated to the recipient but is mandatory and will be registered in PACSonWEB.

Reason for sharing

[   ]

3. The language, used for sending the message:

By default the language of the first recipient is selected but you can change the language by using the drop down menu.

⚠ **Important!**

In case you select multiple recipients with different languages, the mail is sent to all recipients, using the language of the first recipient.

If however, the majority of the recipients have the same language, this is the language that will be selected automatically.

4. Valid till (dd/mm/yyyy)

By default the validity period is set to 1 month but you can change this by:

- filling out the desired time period manually.

- selecting a dte, using the calendar icon.
- selecting the option 'Unlimited access'.

💡 **Tip:**

The default validity period can be configured for each sending radiology department. PACSonWEB offers the possibility to define a default or maximal validity period.

The option 'Unlimited access' can also be deactivated on a source level.

In case a specific configuration is desired, please contact the service desk.

5. Patient Agreed

The "Patient agreed" checkbox must always be checked, because without the patient's consent the study may not be shared.

6. Add label

With this option a label can be attached to the study.

Enable the checkbox to select a label. Additionally the label can be set for the user or a group.

7. Optional settings
- 'Urgent':
  This adds 'Urgent' to the subject of the related mail
- 'Anonymize':
  This replaces the name of the patient:
  - The first name is replaced by a number
  - The last name is replaced by Anonymous

⚠️ **Important!**

The report for an anonymized study will never be accessible, even if you selected the option 'Images and read access on the report' or 'Images and write access on the report'.

- Allow further sharing

  Activating this option allows the recipient to share the study further with other recipients

- Message

⚠️ **Important!**

Unlike when sharing with a user, the message is not available as a separate series within the exam and no label 'message' is added.

It is added to the mail, sent to the recipient.

💡 **Tip:**

When sharing a study with a medical imaging department, the same values for the following parameters are selected automatically with the next user sharing operation:

- Two-factor authentication
- Send mail

STEP 4: Confirmation

A pop-up window with the information about the shared study will be displayed.

- With the button "Copy this information", the content of the pop-up is copied to the clipboard so e.g. it can be pasted into your own email.
- In case 'Send e-mail' is checked, the mail is send to all user from the receiving radiology department, marked as responsible and registered to receive these mails.
- Using 'Share again' you can share the same set of studies again with another recipient.
- In case the receiving radiology department has the autotransfer option enabled, the images will be loaded into the local PACS system automatically.

4.7.4 Sharing studies with a self-defined recipient

This instruction will show you how to share a study with a self-defined recipient 👤 .
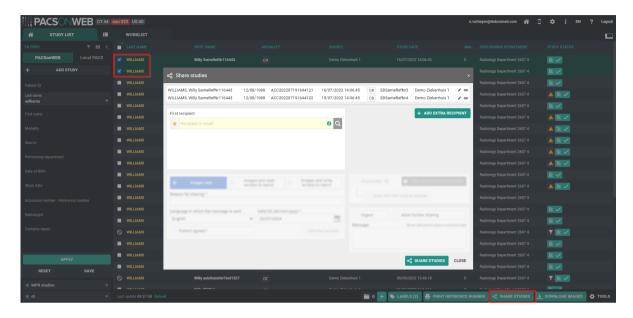
💡 **Tip:**

A self-defined recipient is someone that does not have an account on PACSonWEB, e.g. a patient.

STEP 1: Select the studies you wish to share
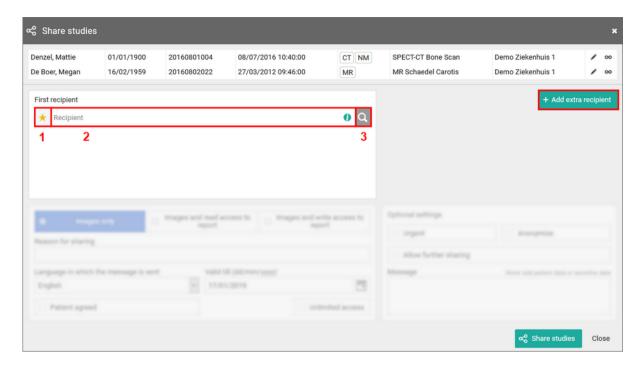
STEP 2: Select your recipient(s)

You can select a recipient by:

1. clicking the 'favorites' icon .

2. filling out criteria with the field 'recipient'.

3. clicking the 'search' icon .

You can add additional recipients by clicking Add extra recipient .

1. Favorites ⭐

By clicking the icon, your list of favorites will be shown.
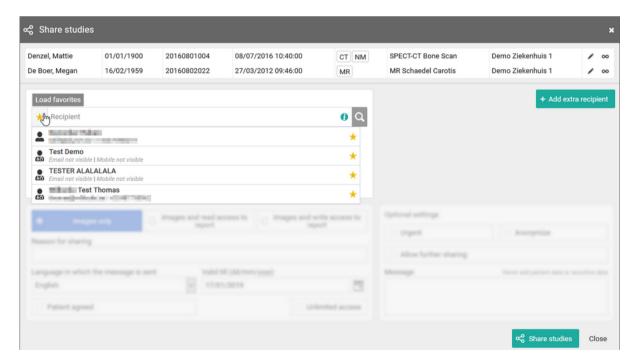
Clicking a favorite will automatically add this user as a recipient.

You can manage your favorites through your address book (refer to page 96).
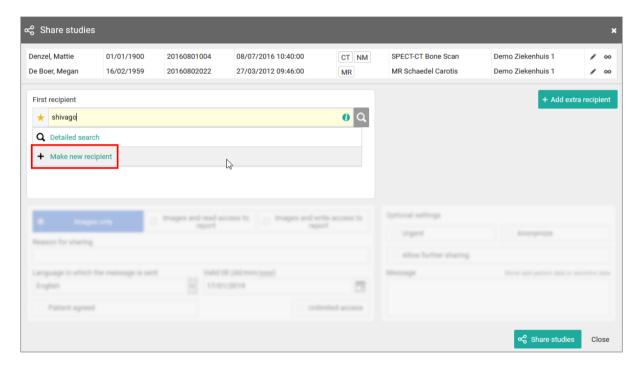
2. The name of the recipient

From the search bar, you can look up a user by:

- First name
- Last name
- Mobile number
- Email address
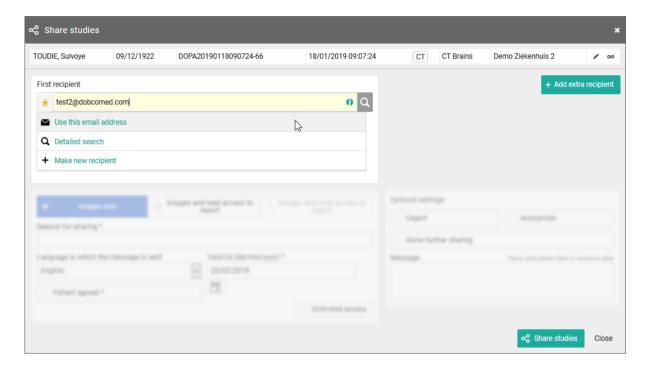
In case your search does not return the recipient you are looking for, you can create a new self-defined recipient.

If you enter an e-mail address in the search field, you also have the possibility to forward a reference code without creating a self-defined user.

To share the selected studies in this way, click on "Use this e-mail address".
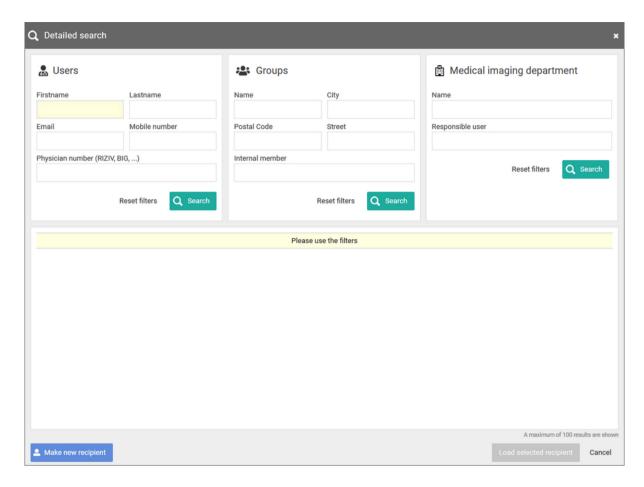
3. Detailed search

From this screen, you can use specific selection criteria to look up and select the desired user, group or radiology department as recipient.
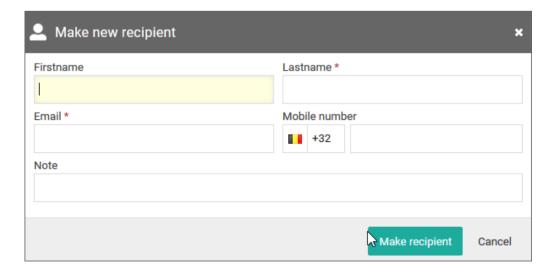
At the bottom of this screen, you have the possibility to add a self-defined user.

When creating a new user, it is mandatory to register the Last name and email address of the recipient.

In case you want to send the reference code or the one-time password by text message, you will also need to fill out the mobile number.

The country code + flag that is used by default, is determined by following logic:

- When entering a phone number in share or print reference number dialog:
  - The last used country code for this machine and this browser (this is saved in a cookie);
  - If no cookie is available, the most frequently used country code from the personal address book;
  - If no contacts have been saved yet, "+32" is used.
- When adding a new contact to the personal address book:
  - The most frequently used country code from the personal address book;
  - If no contacts have been saved yet, "+32" is used.

💡 **Tip:**

> When you create a self-defined recipient, it is automatically added to your favorites.

When you select a self-defined recipient, you can select if you want to send the reference code by mail or text message.

In case you want to apply an additional two-factor-authentication, a one-time-password will be sent by mail or text message when entering the reference code and the date of birth on the patient portal.

By default, if the reference number is shared by mail, the OTP will be sent by text message or vice versa.

Sending both identifiers (reference number + OTP) over the same mean (mail or SMS) is only possible if allowed explicitly by the source of the related study.
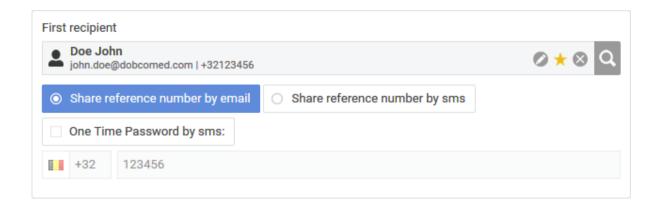
🛑 **Important!**

> If the user gives an erroneous OTP 5 times in succession, the bucket is blocked.

The bucket can be unlocked by the Service desk or an admin user of the sending radiology department (see Status Forwarding (refer to page 164)).

STEP 3: Parameters for sharing

1. When sharing a study with a user, you can opt for

- Images only
- Images and read access to the report

💡 **Tip:**

The option 'Images and write access to report' is not available when sharing with a self-defined recipient.

2. You need to register a 'Reason for sharing'. The reason is not communicated to the recipient but is mandatory and will be registered in PACSonWEB.

3. The language, used for sending the message:

By default the language of the first recipient is selected but you can change the language by using the drop down menu.

🛑 **Important!**

In case you select multiple recipients with different languages, the mail is sent to all recipients, using the language of the first recipient.

If however, the majority of the recipients have the same language, this is the language taht will be selected automatically.

4. Valid till (dd/mm/yyyy)

By default the validity period is set to 1 month but you can change this by:

- filling out the desired time period manually.
- selecting a date, using the calendar icon.

Tip:

The default validity period can be configured for each sending radiology department. PACSonWEB offers the possibility to define a default or maximal validity period.

In case a specific configuration is desired, please contact the service desk.

The option 'Unlimited access' cannot be used for self-defined recipients.
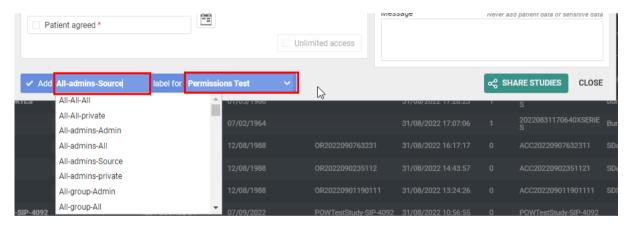
5. Patient Agreed

The "Patient agreed" checkbox must always be checked, because without the patient's consent the study may not be shared.

6. Add label

With this option a label can be attached to the study.

Enable the checkbox to select a label. Additionally the label can be set for the user or a group.

7. Optional settings

- 'Urgent':

  This adds 'Urgent' to the subject of the related mail

- 'Anonymize':

  This replaces the name of the patient:

  o The first name is replaced by a number

  o The last name is replaced by Anonymous

  o The email contains only the initials of the patient name. All other letters are replaced by '*****'

> ⚠ **Attention:**
>
> The report for an anonymized study will never be accessible, even if you selected the option 'Images and read access on the report' or 'Images and write access on the report'.

- Allow further sharing

  This option cannot be used for self-defined recipients.

- Message

  If you add a message, it is added to the mail, sent to the recipient and it is visible to the recipient when opening the study in PACSonWEB.

💡 **Tip:**
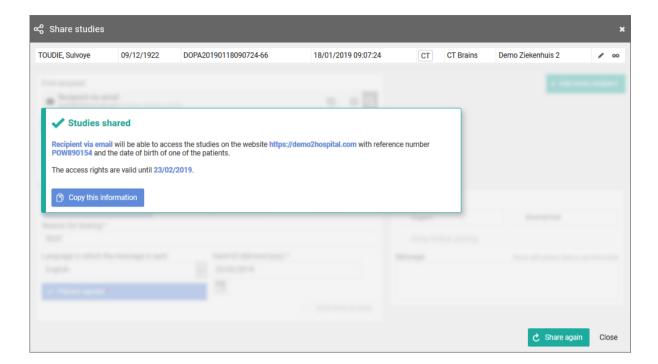
When sharing a study with a self-defined recipient, the same values for the following parameters are selected automatically with the next sharing operation involving a self-defined recipient:

- Share reference number by mail / text message
- One-Time-Password
- One-Time-Password by mail / text message
- One-Time-Password by text message: country prefix
- Language

STEP 4: Confirmation

A pop-up window with the information about the shared study will be displayed.

- With the button **Copy this information**, the content of the pop-up is copied to the clipboard so e.g. it can be pasted into your own email.
- A mail is sent, only in case the option to send the reference code or OTP by mail was checked.

   Tip:

  For reasons of privacy the patient name is masked in the mail. For the first and last name only the first letter is shown; all other letters are replaced by '****'.

- The message is available within the exam as a separate series.
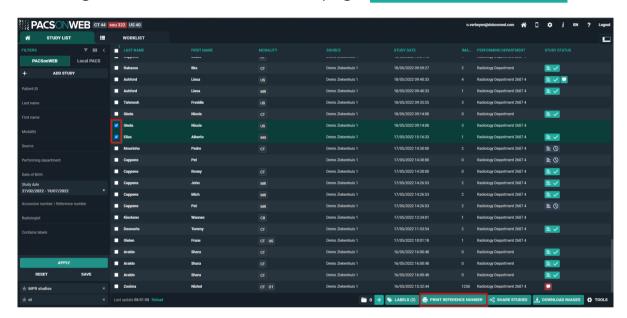
- Using 'Share again' you can share the same set of studies again with another recipient.

4.7.5 Print reference code from the explore page

In this instruction it is explained how to print a reference code from the explore page.

STEP 1: Select the studies for which you want to print a reference code

Select the studies for which you want to print a reference number and click the following button at the bottom of the page: `Print reference number` .

STEP 2: Choose the verification type
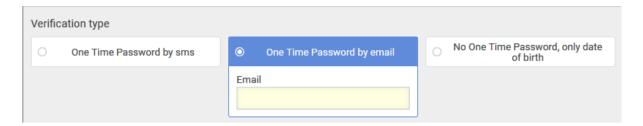
There are 3 possible verification types:

1) **One Time Password by SMS**

2) **One Time Password by email**

3) No One Time Password, only date of birth

 Important!

> If, in case of verification type 1 or 2, the user gives an erroneous OTP 5 times in succession, the bucket is blocked.
>
> The bucket can be unlocked by the Service desk or an admin user of the sending radiology department (see Status Forwarding (refer to page 164)).

STEP 3: Parameters for sharing

1. You can choose to print a reference code for:

- Images only
- Images and read access to report

2. You need to fill out a "Reason for printing". This reason will not be printed but is mandatory and will be registered in PACSonWEB.

3. The language, used for printing the document:

By default the display language of PACSonWEB is selected but you can change the language from the drop down menu.

4. Valid till (dd/mm/yyyy)

By default the validity period is set to 1 month but you can change this by:

- filling out the desired time period manually.
- selecting a date, using the calendar icon

💡 Tip:

The default validity period can be configured for each sending radiology department. PACSonWEB offers the possibility to define a default or maximal validity period.

In case a specific configuration is desired, please contact the service desk.

The option 'Unlimited access' is not available when printing a reference number.

5. Patient Agreed
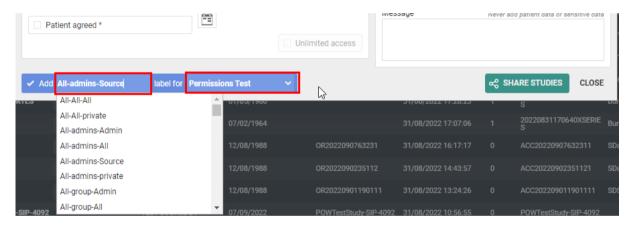
The "Patient agreed" checkbox must always be checked.Without the patient's consent reference number may not be printed.

6. Add a label

With this option a label can be attached to the study.

Enable the checkbox to select a label. Additionally the label can be set for the user or a group.

7. Optional settings:

- Anonimyze:

  This replaces the name of the patient:

  - In PACSonWEB, the first name is replaced by a number and the last name is replaced by Anonymous
  - In the letter, only the last name 'Anonymous' is mentioned

⚠️ Attention:

The report for an anonymized study will never be accessible, even if you selected the option 'Images and read access on the report'.
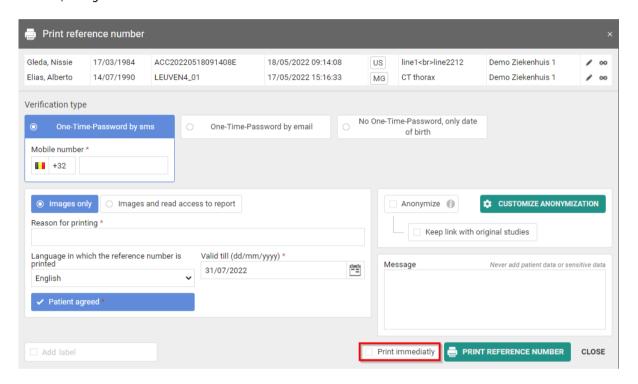
- Message: In case a message is entered when printing the reference code, the message is not available as a separate series within the exam and no label 'message' is added.

  It is added to the letter that is being printed.

8. Print immediately:

If this option is selected, when clicking on "Print Reference Number" a document will be opened for printing with instructions for the patient.

If not, only the confirmation screen is shown.

💡 **Tip:**
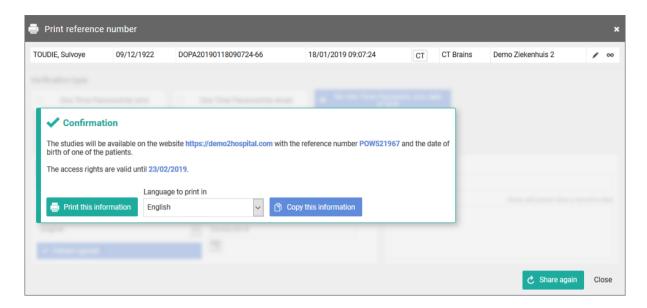
When printing a reference number, the same values for the following parameters are selected automatically with the next printing of a reference number:

- One-Time-Password by mail / text message / none
- One-Time-Password by text message: country prefix
- Language

STEP 4: Confirmation

A pop-up window with the information about the printed reference number will be displayed.
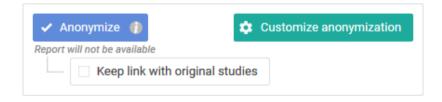
With the button **Copy this information**, the content of the pop-up is copied to the clipboard so e.g. it can be pasted into your own email.

You can print the same letter with reference code again in another language from the confirmation screen.

4.7.6 Anonymizing Studies

If you tick 'Anonymize' the following patient and study information will be adjusted:

- The patient's name is adjusted: the surname is replaced by 'Anonymous' and the first name is replaced by 6 digits.
- The research number is adjusted to: ANON + Base29 series (unique in PACSonWEB)
- The application number is adjusted to: ORD + Base29 series (unique in PACSonWEB)
- The Study Instance UID is adjusted to: a UID, starting with 1.2.528.56.1006 (unique worldwide, as registered by Dobco Medical Systems)

If you check the option "Keep link with original study" ("pseudonymization"), a user has a link between the pseudonymized study and the original study if he has access to both studies within PACSonWEB.

⚠ Important!
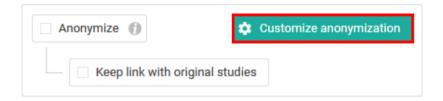
The report will never be available, even if the option 'Images and read access to report' or 'Images and write access to report' has been selected.

⚠ Attention:

PACSonWEB offers the possibility of anonymizing the identifiable information of a study as desired, either manually or by using an anonymization scheme.

This feature is optional. If you are interested, please contact Dobco Medical Systems or the medical imaging department of the hospital.

We refer to the following pages for more information about the possibilities on customized anonymization:

Default anonymization (refer to page 156)

Using anonymization schemes (refer to page 157)

4.7.6.1 Default anonymization

If you have access to the paying option for using anonymization schemes, the button Customize anonymization will be available.
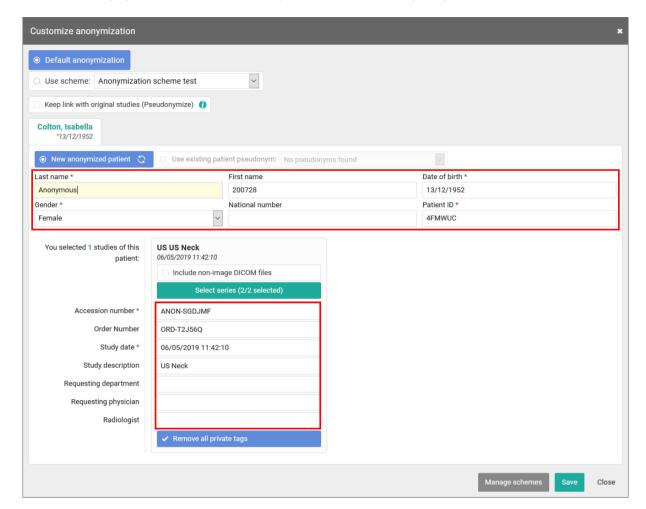
This allows you to adjust patient and study data yourself, either manually (see below) or using an anonymization scheme (see Using anonymization schemes (refer to page 157)).

With default anonymization, the following patient and study data will be adjusted as follows:

- The patient's name is adjusted: the surname is replaced by 'Anonymous' and the first name is replaced by 6 digits.

- The research number is adjusted to: ANON + Base29 series (unique in PACSonWEB)

- The application number is adjusted to: ORD + Base29 series (unique in PACSonWEB)

- The Study Instance UID is adjusted to: a UID, starting with 1.2.528.56.1006 (unique worldwide, as registered by Dobco Medical Systems)

Additionally, you also have the option to manually adjust all marked fields.

4.7.6.2 Using anonymization schemes
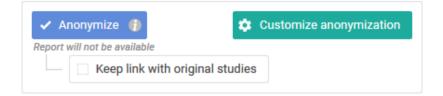
Attention:

This is an optional functionality within PACSonWEB. If interested, you can contact Dobco Medical Systems for more information.

This option can be activated for all studies from a specific source.
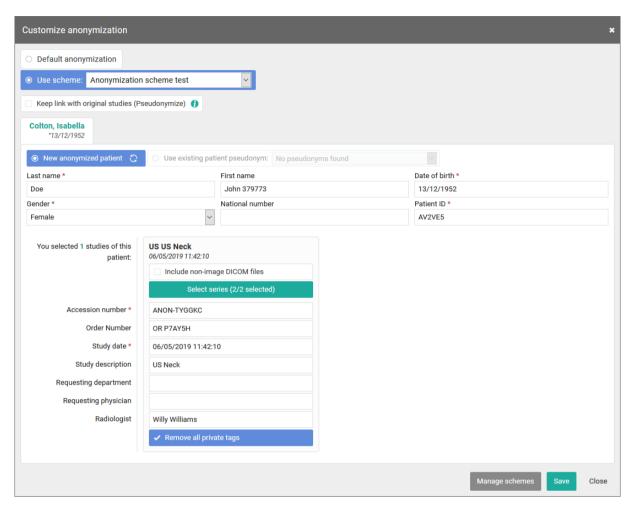
If you wish to use an anonymization scheme, click Customize anonymization .

Click on 'Use scheme' and select the scheme that you want to use.

This changes the patient and study data, as defined in the selected scheme.

The option is available to all users who have access to a study from the source for which this option has been activated.
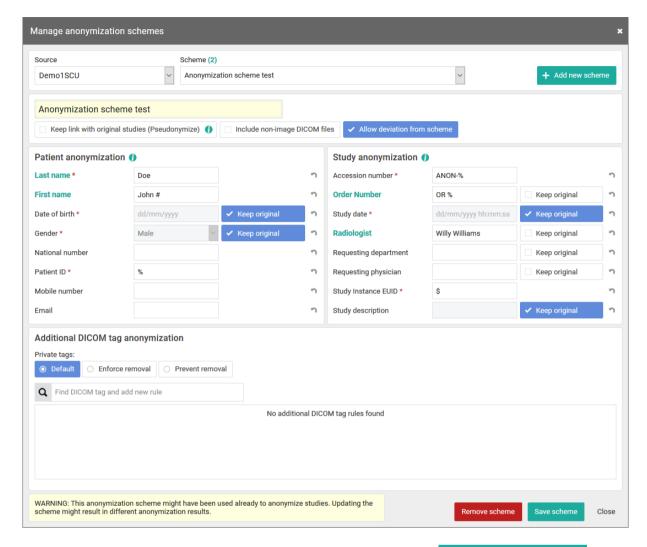
Manage schemes:

⚠️ **Attention:**

This option is only available for source admins.
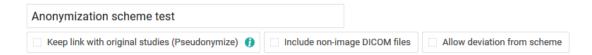
1. Select the scheme you want to change or click on `Add new scheme`:

2. Enter or adjust the name of the scheme:
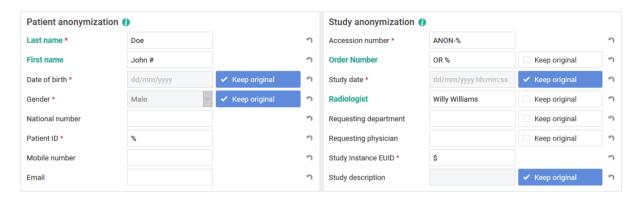
Check the following options if required:

- Keep link with original study ("pseudonymization")

  A user has a link between the pseudonymized study and the original study if he has access to both studies within PACSonWEB.

- Include non-image DICOM-files:

  Determines if non-DICOM files such as Structured Reports, Dose reports, … are made available in the anonymized study or not.

- Allow deviation from scheme:

  This determines if it is permitted or not to manually change the adjusted patient and study data when using the scheme.

```
Anonymization scheme test
```

☐ Keep link with original studies (Pseudonymize) ⓘ   ☐ Include non-image DICOM files   ☐ Allow deviation from scheme

3. Enter the desired adjustments to patient and study data for the schedule:

Patient anonymization ⓘ

Last name *	Doe	↺
First name	John #	↺
Date of birth *	dd/mm/yyyy	✔ Keep original ↺
Gender *	Male	✔ Keep original ↺
National number		↺
Patient ID *	%	↺
Mobile number		↺
Email		↺

Study anonymization ⓘ

Accession number *	ANON-%	↺
Order Number	OR %	☐ Keep original ↺
Study date *	dd/mm/yyyy hh:mm:ss	✔ Keep original ↺
Radiologist	Willy Williams	☐ Keep original ↺
Requesting department		☐ Keep original ↺
Requesting physician		☐ Keep original ↺
Study Instance EUID *	$	↺
Study description		✔ Keep original ↺

Date of birth, gender, study date and description are retained by default, unless explicitly configured otherwise.

4. Specify how private DICOM tags should be dealt with

Additional DICOM tag anonymization

Private tags:

◉ Default   ○ Enforce removal   ○ Prevent removal

🔍 Find DICOM tag and add new rule

No additional DICOM tag rules found

- Default:
- If 'Allow deviation from scheme' is checked, the user can still choose whether the private tags will be removed or not.

  By default, they are deleted.

  ✔ Remove all private tags

- Enforce removal:

  This enforces removal of the private tags. The user cannot change this when using this scheme.

  ✔ Remove all private tags

- Prevent removal:

  When using this scheme, the user is not able to remove the private tags.

  ☐ Remove all private tags

- Find DICOM tag and add new rule: You can add additional DICOM tags to the scheme.

5. Finally, you can delete an existing schedule or save a new or modified schedule:

Remove scheme Save scheme **Close**

Select the scheme you want to change or click on Add new scheme

4.8 Placing studies online and sharing studies

⚠ Attention:

In order to be able to use this application, you must be an administrator, and this application must have been implemented.
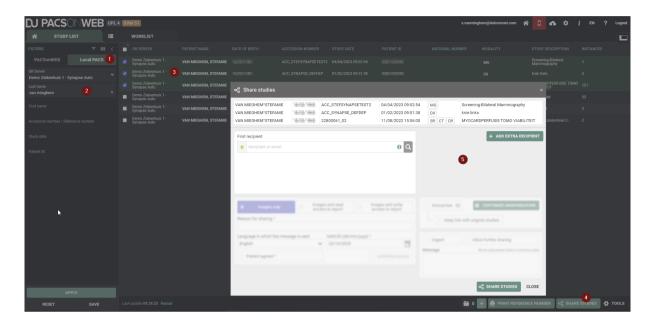
Proceed as follows to place a study from the PACS system on PACSonWEB:

1) Select PACS (= only available if this has been implemented.)

2) Use the filter to find the study again.

3) Select the studies that you wish to share. A selection of the shared studies is called a bucket.

4) Click on the 'Share studies' button. An overview of the studies that you wish to share will be displayed.

You can then choose to share the study with

- a user (refer to page 116)
- a group (refer to page 124)
- a radiology department (refer to page 132)
- a self-defined recipient (refer to page 140)

5) Once you've completed the sharing procedure, a pop-up window will be displayed containing information of the shared studies.
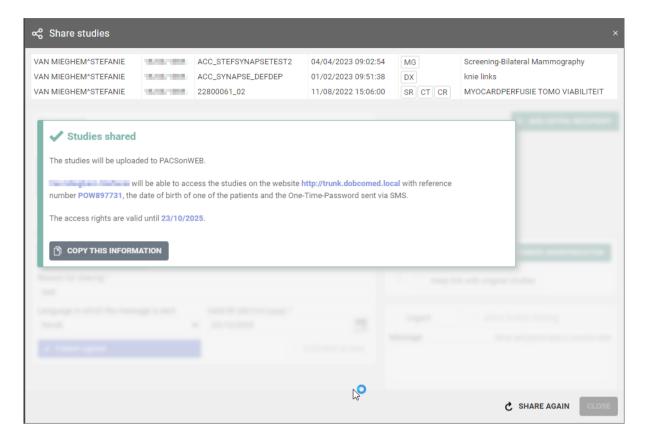
⚠️ **Attention:**

Be aware: the information in the confirmation dialog differs depending on the type of recipient.
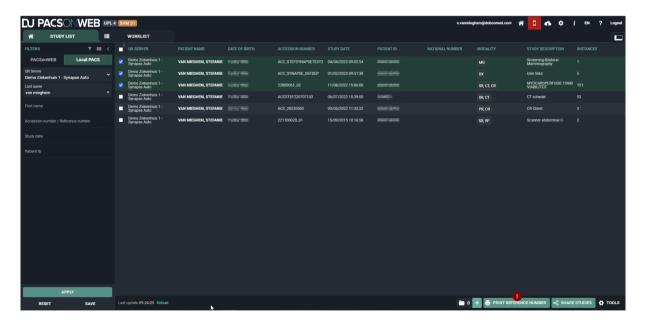
6) Using the "Share again" option, you can share the same studies again.

The option "Print reference number" allows to upload exams and print a reference number in stead of sending the reference number my mail or SMS.

The procedure is similar to Print reference code from the explore page (refer to page 151).

Dedalus
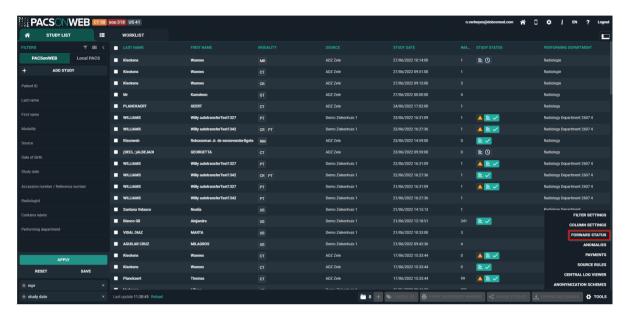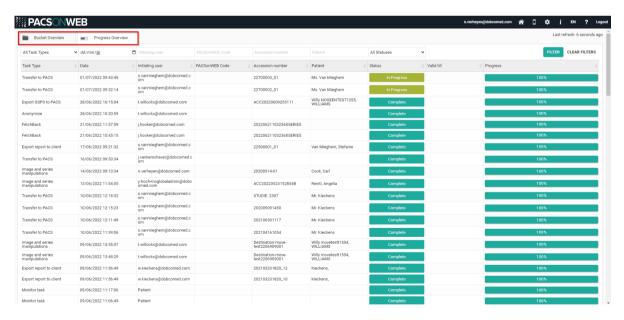
4.9 Status Forwarding

To find out the status of your shared studies, proceed as follows:

1) Click on the 'Functions' button and then on 'Forward status'.

2) A new tab will open that says 'Buckets overview' and 'Progress overview'.

4.9.1 Buckets overview
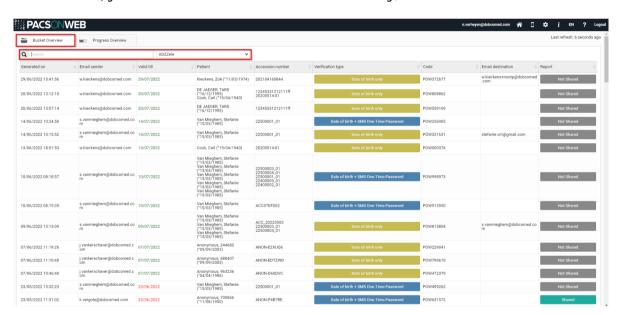
This page displays a list of all the buckets that the logged-in user shares with a non-PACSonWEB user.

If the logged-in user is also the administrator of the group, he/she will see all the buckets that are placed online by the group.

The following information is displayed for the buckets:

- The date on which the bucket was created
- The e-mail address of the person who created the bucket
- The date until which the bucket will be available
- The patient data
- The respective study numbers
- The verification method
- The reference number
- The recipient's e-mail address
- Whether the entire report is shared or only the images ('not shared')

In addition, you can use the filter to find a study/bucket.
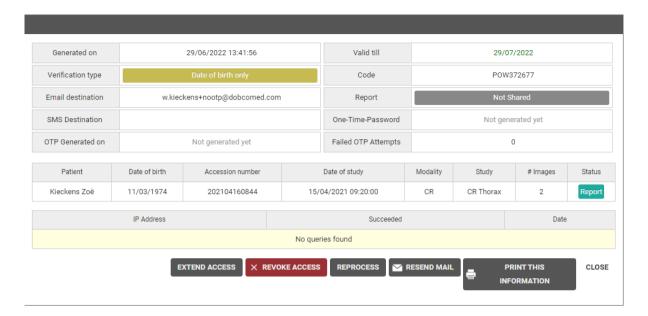
When you click on a bucket, all details on the sharing of the bucket are displayed in a pop-up.

In case an OTP is required for access to the bucket and the bucket code and date of birth have been entered correctly, but the OTP was entered incorrectly, this will be registered in the field "Failed OTP attempts".

After 5 consecutive incorrect attempts, the bucket code is locked for access. It can be unlocked by clicking the icon which will reset the failed OTP attempts.

Generated on	29/06/2022 13:41:56		Valid till	29/07/2022
Verification type	Date of birth only		Code	POW372677
Email destination	w.kieckens+nootp@dobcomed.com		Report	Not Shared
SMS Destination			One-Time-Password	Not generated yet
OTP Generated on	Not generated yet		Failed OTP Attempts	0

Patient	Date of birth	Accession number	Date of study	Modality	Study	# Images	Status
Kieckens Zoë	11/03/1974	202104160844	15/04/2021 09:20:00	CR	CR Thorax	2	Report

IP Address	Succeeded	Date
No queries found		

EXTEND ACCESS   ✕ REVOKE ACCESS   REPROCESS   ✉ RESEND MAIL   🖨 PRINT THIS INFORMATION   CLOSE

Various options are listed at the bottom of the screen:

- Extend access: Extend the period during which the generated POW code can be use to access the exam
- Revoke access: The POW code is no longer valid as of today.
- Reprocess: The study will be reprocessed.
- Resend e-mail: The recipient will receive the e-mail with the POW code again.
- Print this information: The information about the shared bucket will be displayed in A4 page format which you can print.
- Close: Close the window.

4.9.2 Progress overview

⚠ **Attention:**

You can only use this function if you administer the online placement of studies (Placing studies online and sharing studies (refer to page 161)).

This page provides status information about

- the studies that have been placed online using the PACS overlay
- exams, sent from PACSonWEB to a local PACS system
- exams, imported from PACSonWEB using an import client

You can only see the transfers for which you have the required access rights within PACSonWEB.

Just as with 'Buckets overview', you can use the filter to find a specific study. You can filter by different statuses:

- All Statuses
- Queued
- In Progress
- Complete
- Cancelled
- Failed
- Obsolete

And you can filter by different task types:
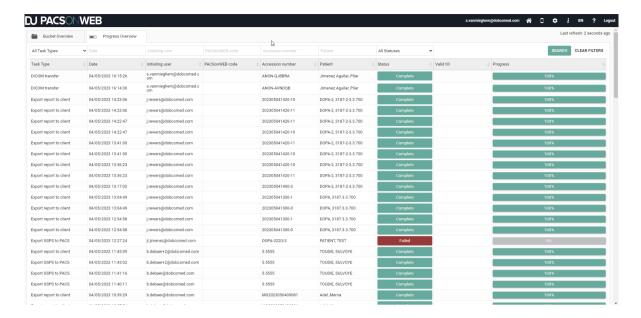
- Share Pacs Study
- Reprocess bucke
- DICOM Transfer
- FetchBack
- Local import client
- Anonymize
- Image and series manipulations
- Export report to client
- Export GSPS to PACS
- Monitor task
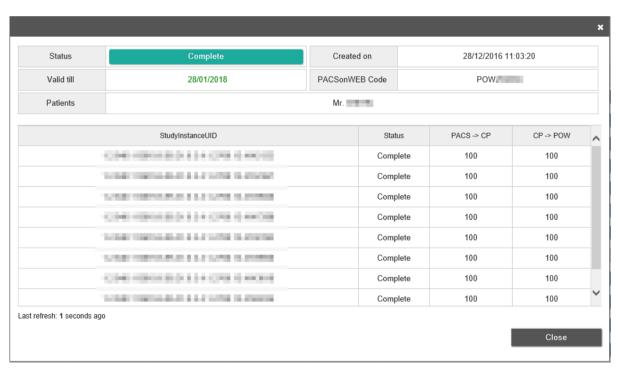
💡 **Tip:**

Click on a column heading to sort the data alphabetically.

The following window will be displayed if you click on a study.

Here you can find more detailed information about the study. It depends on the type of transfer which details are being displayed.

If the study is not yet complete, you can cancel the online placement by clicking on 'Cancel Task'.

In case a study transfer has failed, you can restart the transfer by clicking the 'Retry task' button.

Status	Failed	Created on	15/05/2017 13:11:08
Valid till	15/06/2017	PACSonWEB Code	POW561868
Patients		Mevr. AAPM	

StudyInstanceUID	Status	PACS -> CP	CP -> POW
2.16.124.113543.6004.101.103.20021117.190619.1	Failed	100	0

Last refresh: 3 seconds ago

✕ Cancel Task   ⟳ Retry task   Close

4.10 Downloading studies from the overview page

Proceed as follows to download a study from the overview page:

1) Select the studies you wish to download.

2) Click on Download images .

3) A pop-up window will appear offering you various options for downloading the images:

- download a ZIP file with images in PNG format (standard image format)

  download a ZIP file with images in DICOM format (medical standard)

📝 **Note:**

In case the report is in PDF format, the option "Include report" cannot be selected.

- download a ZIP file with images in original DICOM format with DICOM tags as provided by the local modality or PACS, not taking into account modifications by RIS data or made in PACSonWEB

  download a ZIP file with images in uncompressed DICOM format

---

📝 **Note:**

In case the report is in PDF format, the option "Include report" cannot be selected.

---

  load the images directly in Osirix

Note:

You can only use this option if Osirix has been installed.

In order to be able to load exams into Osirix, it is mandatory that pop ups from the site secure.pacsonweb.com 🔗 are allowed by your browser

Transfer the images to PACS

Note:
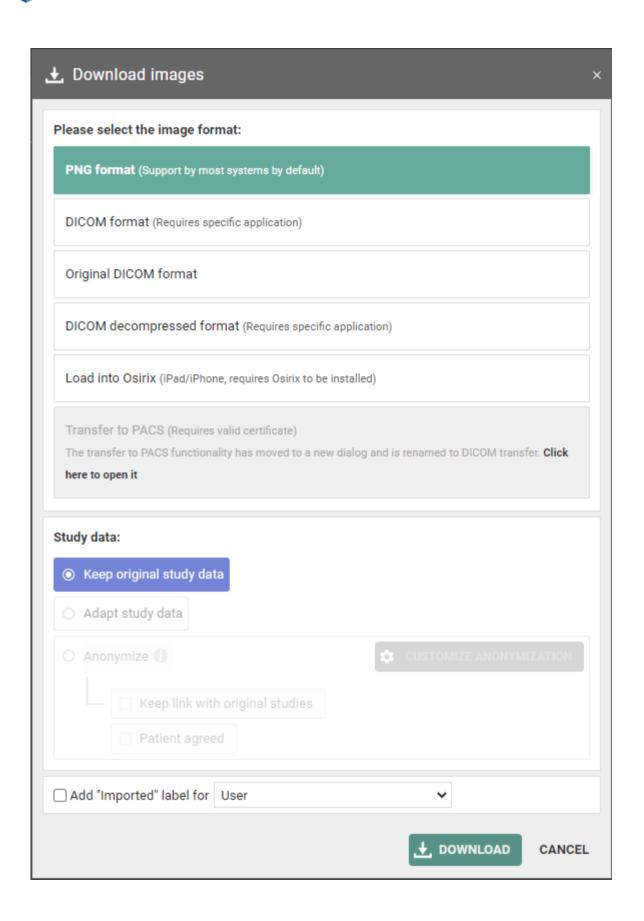
You can only use this option if an import client has been installed on your server. See Importing studies in PACS (refer to page 174).

In case the report is in PDF format, the option "Include report" cannot be selected.

![Dedalus logo]

Download images ✕

Please select the image format:

PNG format (Support by most systems by default)

DICOM format (Requires specific application)

Original DICOM format

DICOM decompressed format (Requires specific application)

Load into Osirix (iPad/iPhone, requires Osirix to be installed)

Transfer to PACS (Requires valid certificate)

The transfer to PACS functionality has moved to a new dialog and is renamed to DICOM transfer. **Click here to open it**

Study data:

◉ Keep original study data

○ Adapt study data

○ Anonymize ⓘ   ⚙ CUSTOMIZE ANONYMIZATION

☐ Keep link with original studies

☐ Patient agreed

☐ Add "Imported" label for User ▾

⬇ DOWNLOAD   CANCEL

4) Click on the format you wish to download and then click on DOWNLOAD.

For the following options, the report (if available and accessible) is included as a SR file (structured report) by default:

- DICOM format
- DICOM decompressed format
- DICOM transfer

Only reports with status "preliminary" or "validate", can be downloaded. If the report is still in status "draft" or is stored in PDF format, it will not be available for download.

The option to include the report can be unchecked by the user before download.

Study information

In case you are downloading a single exam and you select DICOM or DICOM uncompressed, Load into Osirix or DICOM transfer, you have the option to modify or anonymize the study data.

A full explanation on data anonymization is available in Anonymizing Studies (refer to page 155).

Label

You can add the 'Imported' label to the study for

- your user
- a user group

This label is visible on the overview page in the column 'Labels'.

How to configure your column settings is explained in Overview page configuration (refer to page 64)
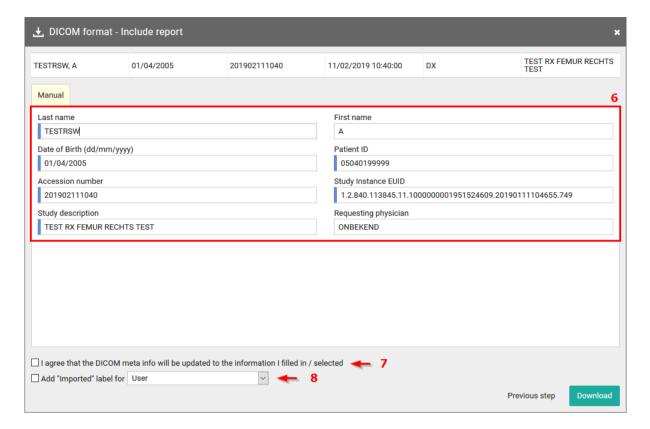
5) In case you are downloading a single exam and you select DICOM or DICOM uncompressed, you also have the option of editing the study data.

Select 'Adapt study data' and then click on 'Next step'. This option is always selected for 'Load in Osirix' and 'DICOM transfer'.

With 'DICOM transfer' you have the option of editing the study data using a DICOM work list. This is explained in further detail in Importing studies in PACS (refer to page 174).

For the other options, the data can only be edited manually.

DICOM format - Include report

| TESTRSW, A | 01/04/2005 | 201902111040 | 11/02/2019 10:40:00 | DX | TEST RX FEMUR RECHTS TEST |

Manual

6

Last name
TESTRSW

First name
A

Date of Birth (dd/mm/yyyy)
01/04/2005

Patient ID
05040199999

Accession number
201902111040

Study Instance EUID
1.2.840.113845.11.1000000001951524609.20190111104655.749

Study description
TEST RX FEMUR RECHTS TEST

Requesting physician
ONBEKEND

☐ I agree that the DICOM meta info will be updated to the information I filled in / selected ← **7**
☐ Add "Imported" label for User ← **8**

Previous step   Download

6) Here you can edit the study data and patient information.

7) You must always check the box next to 'I agree to the DICOM meta info being updated with the entered/selected information' before you may proceed.

8) If you wish to add the 'imported' label to this study, check the box next to 'Add the "Imported" label for ...'.

📝 **Note:**

You can configure this for your user and for the groups to which you belong.

---

9) A ZIP file will be displayed.

📝 **Note:**

Where the ZIP file appears depends on your browser. In Google Chrome, for example, it will be displayed in the lower left part of the screen.

---

10) Double-click on the ZIP file. A window will be displayed with a tab called "Extract: Compressed Folder Tools".

11) You can now see various directories. Each directory corresponds to a study whose images you wish to download.

12) Click on 'Extract all' to extract the ZIP files and save them on your computer.

4.10.1 Importing studies in PACS
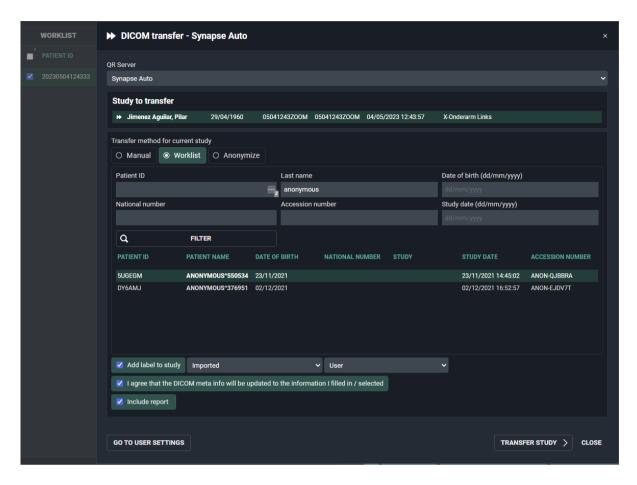
⚠️ **Warning:**

> You can only use this function if your local PACSonWEB service partner has installed an import client on your server (paying option).
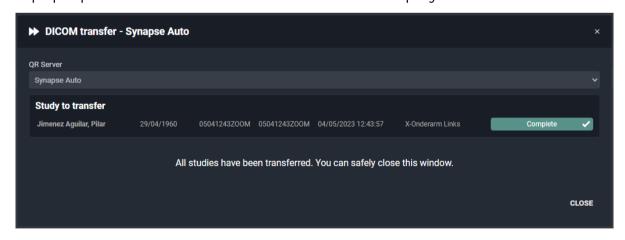
Proceed as follows to import a study into your PACS system:

1. Select the studies you wish to import.

2. Click on `DICOM transfer`

3. A pop-up window will appear offering you various options, most of these options can be configured, see section DICOM Transfer (refer to page 96).

4. Select the desired PACS system in the drop down menu (QR Server).

   If a report is available with status set to "preliminary" or "validated", it is included by default as a SR file (structured report).

   If the report is still in status "draft" or is stored in PDF format, it will not be possible to forward.

   The option to include the report can be unchecked by the user before transferring the study.

5. In case a DICOM worklist has been configured, you can now look up and select the patient or study by using the filters.

6. If you do not have a Worklist configured or cannot find the patient or study, you can add the patient 'Manually',by clicking the "Manual" radiobutton. Edit the fields you wish to modify and click **Transfer Study**.

7. A pop-up window with the status will now be displayed.

8. Once the transfer has completed, the study will be available in the local PACS system and the label 'Imported' will be added to the study in PACSonWEB.

	PATIENT ID	FIRST NAME	LAST NAME	MODALITY	SOURCE	STUDY DATE	IMA...	ACCESSION NUMBER	PROCEDURE	REQUESTING PHYSI...	STUDY STATUS	LABELS
✓	20230504124333	Pilar	Jimenez Aguilar	DX	Demo Ziekenhuis 2	04/05/2023 12:43:57	1	05041243ZOOM	X-Onderarm Links	DOPA-1871, DOPA-1871	≡✓	Imported

💡 **Tip:**

You can filter by the 'Imported' label if you make labels available under Filtering (refer to page 67). The 'Imported' label will be displayed in your overview list if you have configured the 'Labels' column under 'Column settings (refer to page 64)'.
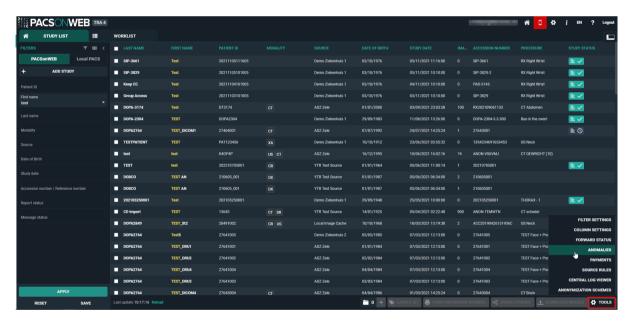
4.11 Overview page anomalies

🛑 **Important!**

This functionality is only available for the administrators of a sending radiology department.

To get an overview of all anomalies that have been registered for your radiology department, click on 'Functions' and choose 'Anomalies'.

This page lists all anomalies, as registered on the study administration page (see Anomalies (refer to page 249)) for each individual exam, grouped in two categories:

- anomalies on study level
- anomalies on patient level

Anomalies on study level

The following anomalies will be reported:

- national number in DICOM files differs from HL7 information
- date of birth in DICOM images differs from HL7 information
- no or incorrect date of birth registered
- number of images in PACSonWEB differs from the number of images in the local PACS (taking into account any applied filtering)
- national number already registered with another patient through DICOM
- image or HL7 message received with the same study instance EUID or accession number but with other patient ID
- study for patient without ID is changed to a patient with ID via DICOM or HL7
- incompatibility with CvKO requirements
- studies of different patients have been merged
- failed move or delete operation of image or series

Anomalies on patient level

The following anomalies will be reported:

- Multiple internal patient IDs have been registered for a single patient
- Received national number already linked to another patient
- Date of birth differs from date of birth that was registered with a previous exam
- National number already registered with another patient through HL7
- Patient without ID from DICOM (scroll to bottom of the page for more explanation)
- Patient without name from DICOM: a patient name is generated ("UNK_"+ [source abbreviation]+unique number) and used (scroll to bottom of the page for more explanation)

For each registered anomaly, the following information is shown:

- the source of the study
- a link towards the study
- the study date
- date and time when the anomaly was registered
- the anomaly type + the required access level of a user to be able to open the study
- a description of the anomaly

- the possible corrective measures

Once a solution has been selected, it will be marked in green. When hovering the cursor over the label, it is displayed by whom and when the selected solution was applied.

In case a national number was registered for two different patients, it will be possible to assign this to the first patient, the second patient or to merge both patients.

For the latter option, the following screen is displayed to perform the merge in a controlled way:
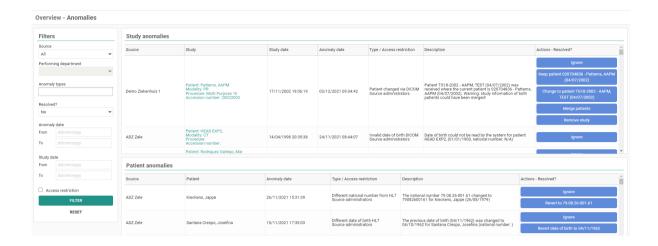
⚠️ **Warning:**

Once a solution has been applied, this cannot be undone!

Refresh rules

The anomaly overview page is refreshed after an action that could impact other anomalies:

Following rules are applied:

If a record is changed via HL7, the page will refresh after following actions:

- Keep patient
- Merge
- Assign national number
- Remove study

If a record is changed via DICOM, the page will refresh after following actions:

- Change
- Merge

If a record is changed via HL7, the page will **not** refresh after following actions:

- Ignore
- Keep National number
- Change patient
- Revert date of birth

If a record is changed via DICOM, the page will **not** refresh after following actions:

- Ignore
- Keep

(!) Important!

> Only the 100 most recent anomalies are listed in the overview.
>
> To display a selection of the registered anomalies, you can use the filter.

Filtering can be applied, based on a single field or multiple fields.

Possible fields are:

- Source
- Performing department

  If Source is set to "All", the performing department cannot be selected
- Anomaly types
- Status
- Anomaly date
- Study date (from = 0h00 ; to = 23h59)
- Access restriction

4.12 Overview page payments

(!) Important!

> This functionality is only available in case you are an administrator of a sending radiology department and patients need to pay to have access to the study.

To see the overview on all payments that have been registered for your radiology department, in the bottom right corner of the screen, click **Tools** and choose **Payments**.
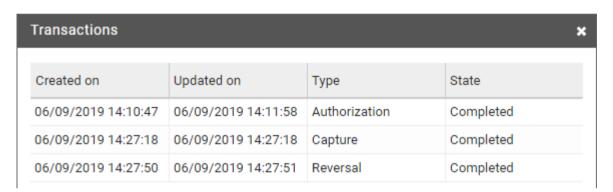
The overview page lists the most recent 100 logon actions regarding studies for which a payment is required:

Each entry contains the following:

- the source from which the study originates
- the reference number that has been used to access the study
- the timestamp when the access attempt was registered
- a 'Valid' flag to indicate that a token was requested successfully with the payment instance
- a 'Paid' flag to indicate that the payment was registered successfully

- A button 'Transactions' to call a pop-up, containing all transactions on the payment
    - The following types of transactions exist:
        - Authorization: the user has given authorization to perform the payment; money has not been transferred yet
        - Capture: payment has been performed, i.e. money has been transferred
        - Reversal: the payment has been reverted
    - The State indicates if the related transaction
        - has been initiated
        - is in progress
        - has completed successfully
        - has failed

Transactions			✖
Created on	Updated on	Type	State
06/09/2019 14:10:47	06/09/2019 14:11:58	Authorization	Completed
06/09/2019 14:27:18	06/09/2019 14:27:18	Capture	Completed
06/09/2019 14:27:50	06/09/2019 14:27:51	Reversal	Completed

- A button Reversal to initiate a reversal of the payment.
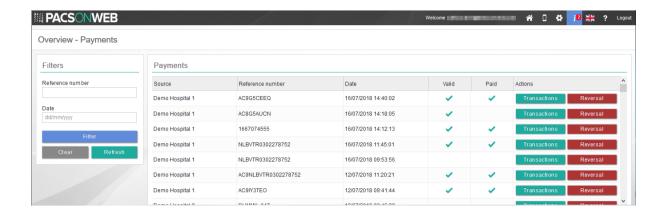
    ⚠️ **Warning:**

    When reverting the payment, a refund will be initiated but the study will still be marked as payed for

A specific exam can easily be retrieved by using the filter on the left hand side based on the reference number and/or the study date.

4.13 Local image cache
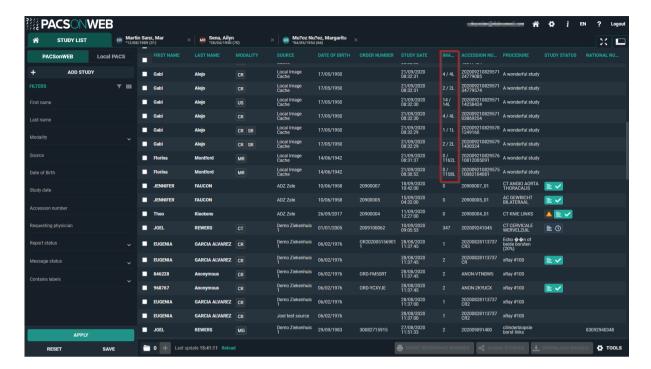
A medical imaging department can opt, in addition to the processing in the central PACSonWEB cloud environment, to process the images also localy in a local image cache.

In this case, users that have access to the local image cache, do not have to wait until all images are transferred and processed by the central PACSonWEB environment but can access these images almost instantly within the local network.

The overview page for these users will contain all studies that are available through the local image cache, as well as those through the central PACSonWEB environment.

For studies that are available through the local image cache, the column "Images" contains the number of images that are available in PACSonWEB / the number of images that are available inthe local image cache (L).

As long as the images of a study or only available through the local image cache, the following central features will not be available:

- sharing a study (Sharing studies from the overview page (refer to page 114))
- MPR (MPR and related tools (refer to page 255))
- downloading images (Downloading studies from the overview page (refer to page 169))

Once all images are available in the central PACSonWEB environment, these features will become available.
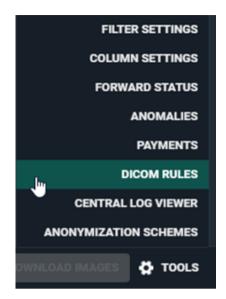
4.14 Dicom rules

Specific DICOM based rules can be configured for a source. The rule needs to have a name, rule type and rule requirements.

Configuration of a rule

Click on the tools menu in the study list and then on dicom rules.
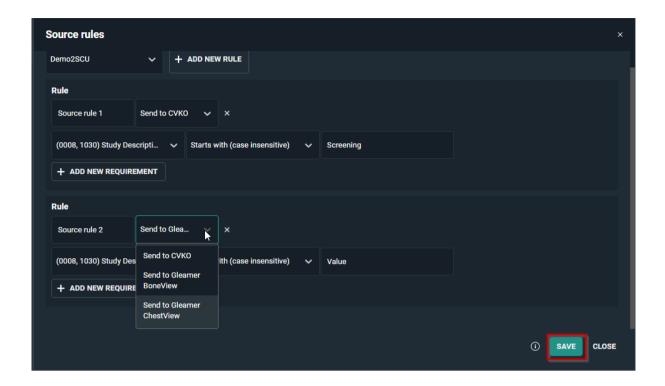
A window will open where new rules can be configured.

- Select the correct source (only sources for which the user has admin rights will be listed)
- Give the rule a name and select the rule type, the following rule types can be configured:
  - Send to CVKO
  - Send to Gleamer BoneView
  - Send to Gleamer ChestView
- Select the Dicom Tag, the selection criteria and fill in the relevant value for the rule
- Optional: Add an additional requirement in a similar way
- Click SAVE when finished.

4.15 Labels

From the overview page you have the possibility to link labels to studies.
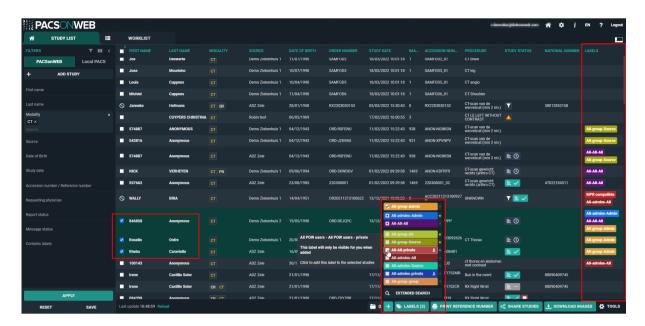
In order to do this, select a single or more studies from the list for which you want to add a label.

Click "Labels" at the bottom of the page to link on one or more labels to the selected studies.

The linked labels are displayed in the column "Labels" if this column has been made visible for your overview.
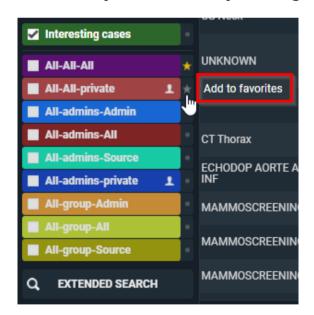
If not, how to make it visible, is explained here: Overview page configuration (refer to page 64).

If you add a label that has the private label icon , the label will only be visible for you.

Labels with the yellow star icon are marked as favorite. You can add or remove a label from your favorites by clicking the star icon behind the label.

In the list, at least 10 labels are shown.

On top you have the labels that have been linked with all selected studies.

Then the labels are shown that have been linked to some of the selected studies.

Then all unselected favorites are listed.
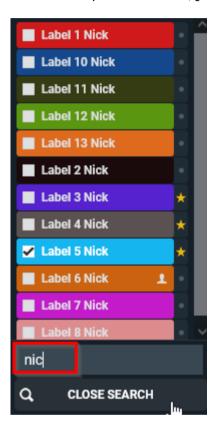
These three categories are always visible, even if they all together contain more than 10 labels.

In case these categories contain less than 10 labels, other available labels are added to the list alphabetically.

If you have access to more labels than displayed in the list, you can click on Extended Search to see all other labels.

To find a specific label, you can scroll trough the list or type in part of the label name.

PACSonWEB study page

When you click on a study in the study list, you will be taken to the study page.

This is also the page that opens if you log in using a reference number (I am patient...).

 Important!

It is NOT allowed to use PACSonWEB for diagnostic purposes in case you are connected with a reference number !!

In this case, this is also indicated within the study page:

5.1 History
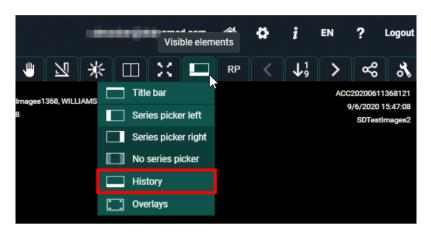
At the bottom of the study page is an overview of this patient's studies to which you have access.
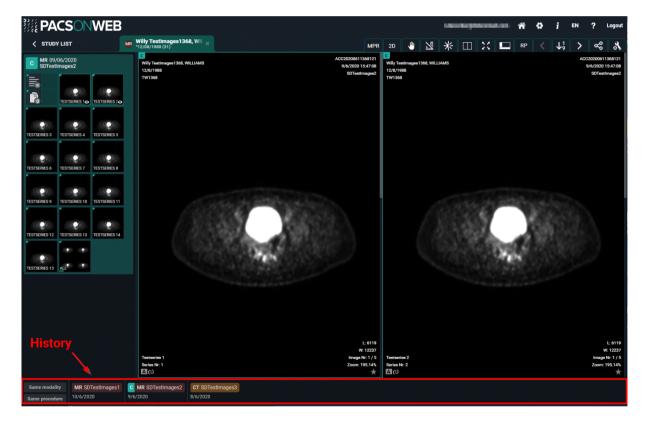
If you log in using a reference number, then these are the studies that are linked to the number.

If you log in through your account, then these are the studies that have been assigned to you or your group.

If this overview is not shown, click on 'visible elements' in the menu bar and select 'History'.
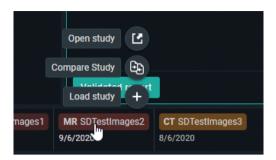
You can filter this timeline by type of device or study type.

Do this by clicking on the buttons **Same modality**, **Same procedure** on the bottom left of the study page.
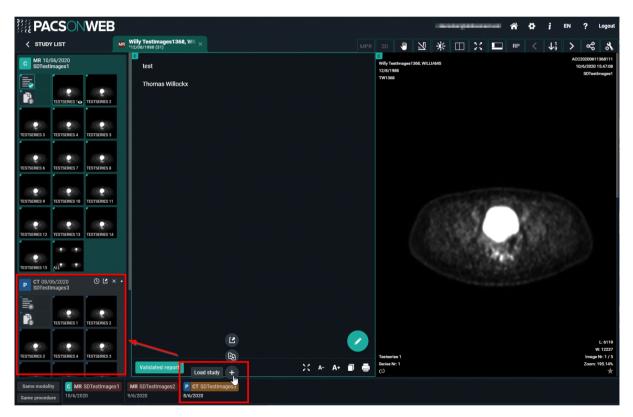
When you hover over a study in the history bar, you can choose to load, compare or open the study.

When hovering in the history bar over the currently open study, the message "Current study" is displayed.

- Load study

  If you choose to load the study, it will end up in the series picker.

- Compare study

  If you choose to compare the study, it will appear in the series picker and in the image screen.
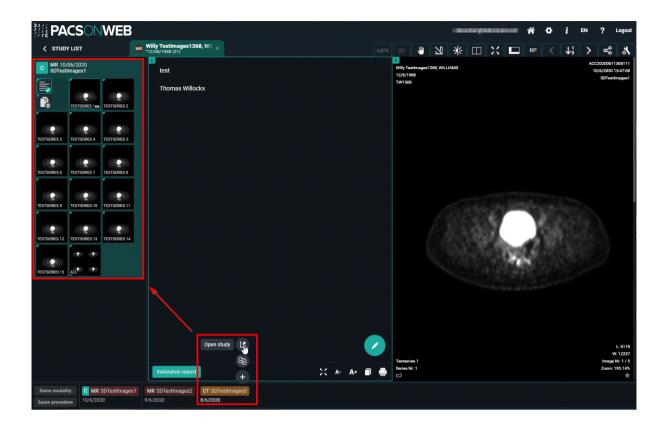
- Open study

  If you want to open the study, the study that is currently open will close and the study you wish to view will open.

5.2 Series picker

In the series picker a list of available series for each study is presented.

If the series picker is not shown, click on 'visible elements' in the menu bar.
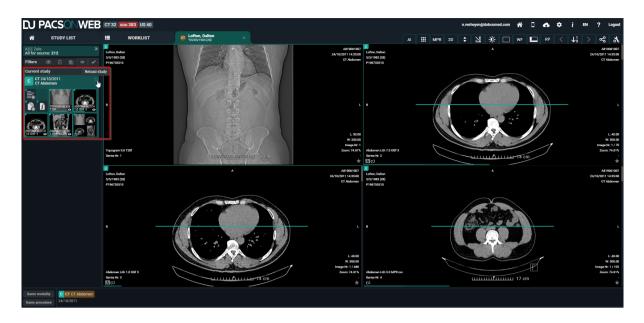
You can choose to display the series picker at the left or right side of the screen or not at all.

- Series picker left
- Series picker right
- No series picker

The type of study, the study date and the procedure description of the study are listed at the top of the image series.

In the top right corner of the series picker, an icon is available to reload the study e.g. in case additional images have been made available for the study.

Report, documents & Order information

The series picker also contains the report, additional documents and the order information. You can consult these, download them, print them ...

⚠️ **Caution:**

This is only the case when these are available and you have access to them.

Icon	Description
	Validated report available
	Peliminary report available
	Draft report available
	No report available
	Document(s) available (3 for this example)
	No documents available
	Order information available

ⓘ Important!

Only administrators of a study can create a report, add documents and add order information.

- Create report

  See: Report display (refer to page 279)

- Add documents:

  Click the documents icon and subsequently the green plus icon.
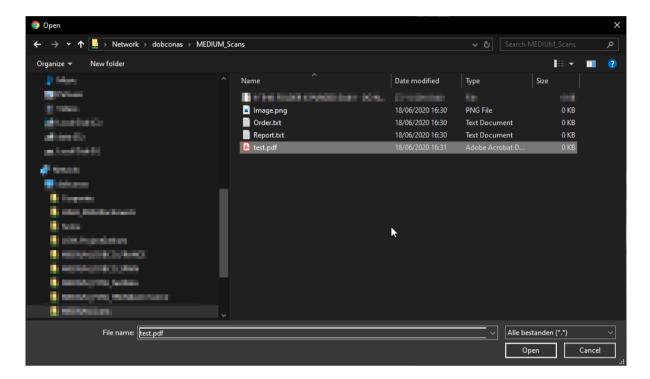
Select the appropriate document and click Open.
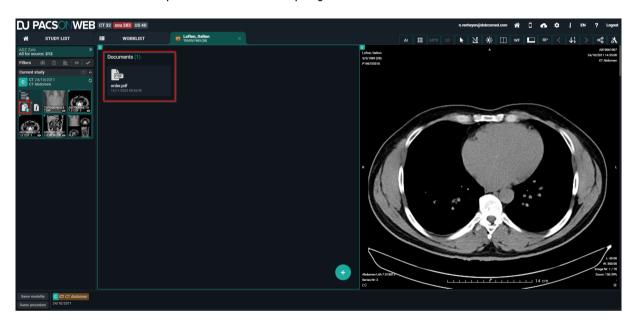
Only the following file types can be uploaded:

- PDF
- RTF
- TXT
- PNG
- JPEG
- JPG
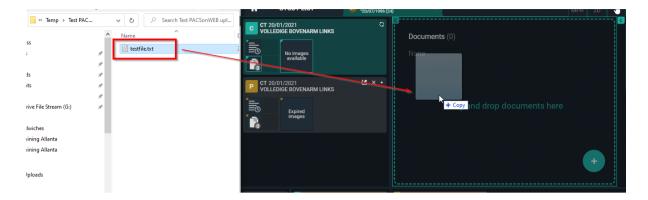
The document is uploaded and displayed in the documents overview.
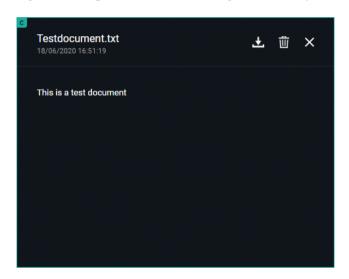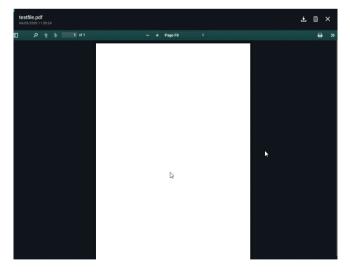
Drag and drop: You can also add a file by dragging it directly from your computer onto the Documents window.
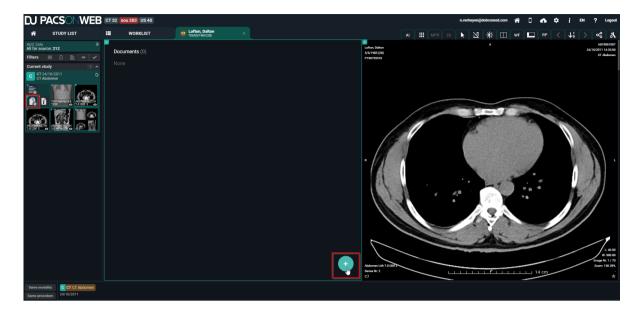
By clicking the document you can open it, download it or remove it.
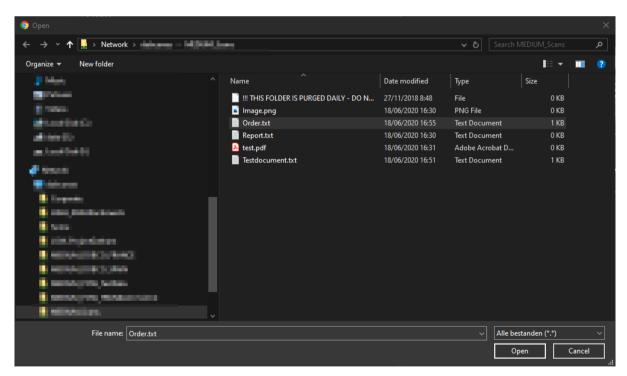
- Add order information:

  Click the documents icon and subsequently the green plus icon.

Drag and Drop or select the appropriate document and click Open. The file must have the name 'Order' and file type must be txt or pdf.

The uploaded document is displayed in the documents overview and the order icon becomes visible in the series picker.

Encapsulated PDF files will be shown in the "Documents" viewport.

⚠️ **Warning:**

> Existing encapsulated PDF, processed before PACSonWEB 3.3.300, will be shown with document title "Unknown".

Displaying Study information

By clicking the order information icon [i] , the scanned order is displayed in case it is available and you have the required access rights.
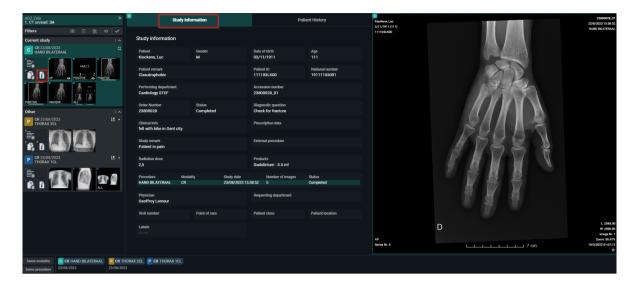
In a second tab, the study information is being displayed. If no scanned order is available, the study information is displayed immediately.

In a third tab the patient history is available. This contains a list of all studies for the patient, sorted chronologically.
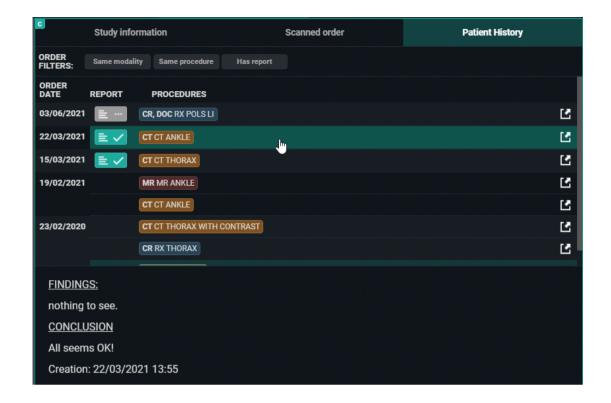
With the order filters the list can be filtered to get a better overview.

By clicking a report icon, the report for the related study will be displayed in the section below the list.

By clicking a procedure description the images for the related study will be opened automatically for comparison with your current study.

📝 **Note:**
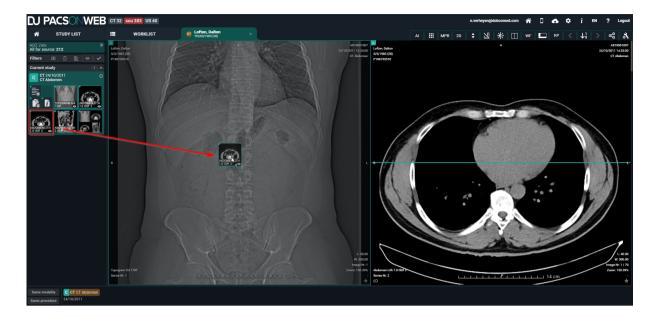
The fields that are being displayed in the order information can be configured on a source level.

If you want to change the displayed fields or the access to the order information for your source, please contact our Service Desk.

Displaying series:

You can add series to the image screen by dragging or clicking on them.
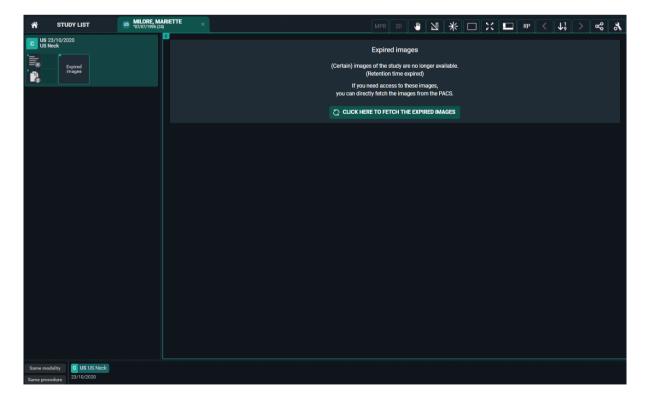
By default, images are kept online for a period of 1 year, 3 years for mammo. In case the retention time has expired, the images will be removed form PACSonWEB and a series, marked as "Expired images", will be available in the series picker.

The same series is also shown in case a study is available for at least 1 week and no images are available yet.

Depending on the sending radiology department, you may have the possibility to retrieve the expired / missing images, using the Fetch functionality.

In case this option is available, you have the possibility to:

- **FETCH IMAGES:** fetch the set of images that were initially available (possibly filtered)
- **FETCH ALL IMAGES**: fetch all images of the exam

You can add multiple studies to the list by clicking on a study in the history (refer to page 188).

Also in case you logged on as a patient with a reference code that allows access to multiple exams, all exams will be loaded into the series picker.

Prior and Subsequent studies

When a study is opened, POW indicates with the symbols P and S if an older or more recent study is also available to compare with the current active study.

P = Prior study: The study has a study date which is older than the current study.
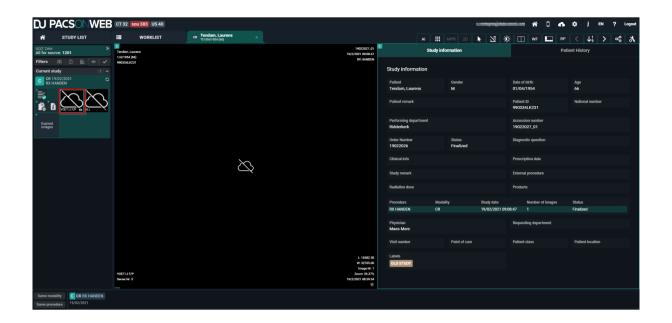
S = Subsequent study: The study has a study date which is more recent than the current study.

When an image from a Prior or Subsequent study is in view, the date is highlighted to give an extra indication.

In case an issue occurs when loading an image, the following icon will be displayed. In such case, please contact the service desk.

5.2.1 The Extended Seriespicker

💡 **Tip:**

By default the extended series picker is not enabled. You can activate this by going to your user settings and enable the option: 'Show prior studies in series picker'.

See Preferences (refer to page 87) for more information.

Extended series picker
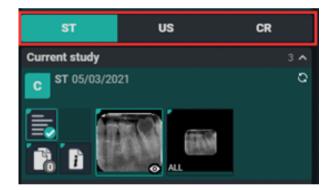
The studies are grouped in the extended series picker as follows:

- Current open study
- Relevant: Prior studies from the same patient, considered as relevant for the open study
- Other prior studies
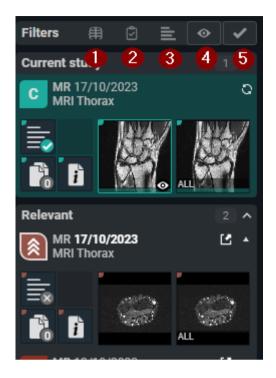
For an order with more than 1 primary study the same grouping applies but for every primary study there is a tab to switch between the studies.

Filters in series picker

Extra filters can be used to filter an excessive series picker list. See image below:

1. Same modality
2. Same procedure
3. Has report
4. Has images
5. Is not cancelled

Behaviour of the filters

The filters "same modality", "same procedure" and "has report" are **not sticky**. These filters will be reset to disabled when opening another study.
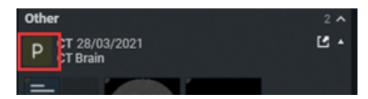
The filters "has images" and "is not cancelled" are **sticky**. These filters are remembered when opening another study.

Linking relevant studies

Within the series picker, there are two ways to link different procedures as relevant.

1. By linking manually:

In the extended series picker, click the 'P' icon in the top left corner of the procedure you want to link as relevant.

The icon will change to indicate that the procedure is now marked as relevant with high priority.

By clicking the icon a second time, the procedure will remain linked as relevant but now with low priority.
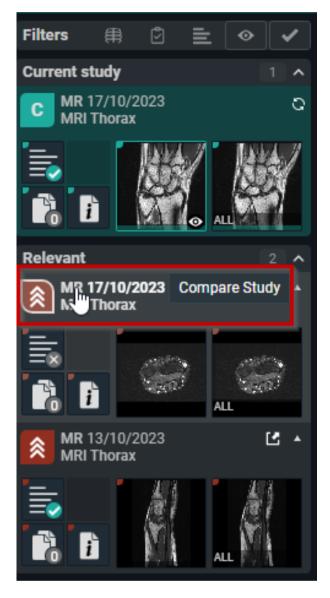
2. Linking when comparing.

You can automatically compare the current study with another study by:

- clicking the study description in the extended seriespicker
- hovering over the label in the patient history and click "Compare Study"
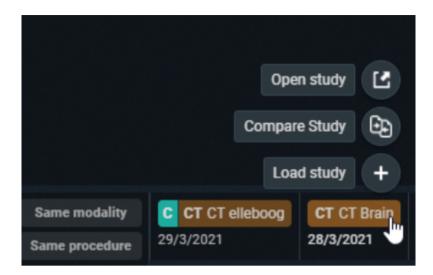
In both cases, a pop-up will be shown in the right bottom corner of the screen, asking if you want to mark the related procedure as relevant for the procedure of the current study.

or

Click **YES**, if you want to link these procedures.

<u>Unlink a relevant procedure:</u>

Unlinking a procedure as relevant can be done by clicking the same icon in the extended series picker.

If the procedure is marked as relevant with low priority, one click on the icon unlinks the procedure.

When a procedure is marked as relevant with high priority, it has to be clicked twice.

- Click 1: Procedure gets low priority linking
- Click 2: Procedure is unlinked as relevant

📝 **Note:**

With these links, a link is made between procedures, not between studies.

This implies that, when linking procedures as relevant with studies from one patient, the same will occur for other patients that had the same studies.

Dedalus

⚠️ **Caution:**

A link with a relevant procedure cannot be removed in case it has the study has the same procedure as the open study.

📝 **Note:**

Relevant linked procedures are registered on a user level and therefor apply only within the context of a user account.

In case the user option 'AutoCompare' has been activated, the study at the top of the Prior list will automatically be shown in compare when loading a study.

The list with Prior studies contains:

● The first study of the same order as the current study

● The first relevant linked study

● Any other study from this patient

A prior study is automatically considered Relevant if it has the same procedure as the current study.

5.3 Toolbar

The upper right part of the study page contains a menu bar with image editing tools and other functions.

The 'pan' and 'reference lines' functions are activated by default.
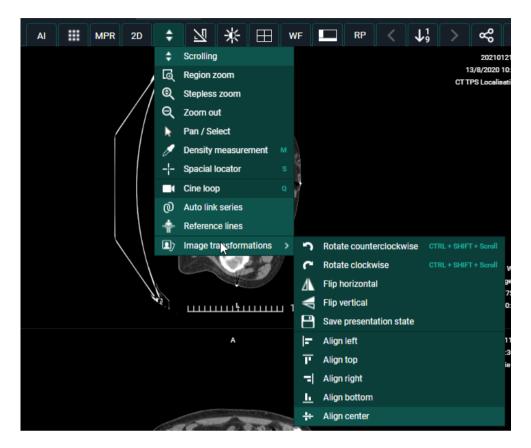
5.3.1 Image transformations

You have the possibility to change the positioning of the image by clicking "Image functions" from the toolbar and selecting "Image Transformations.

You can perform the following transformations:

- Rotate counter clockwise
- Rotate Clockwise
- Flip Horizontal
- Flip Vertical
- Align left
- Align top
- Align right
- Align bottom
- Align center

💡 **Tip:**

To rotate the image you can use the following short cut: CTRL + SHIFT (keyboard) + scroll (mouse wheel)

Save presentation state:

A Presentation State is an independent DICOM SOP Instance that contains information on how a particular image should be displayed.

This is used when a correction needs to be made for an image or multiple images.

For example: Flipping or rotating an image.

When the correction is applied, click on Save presentation state. **Save presentation state**
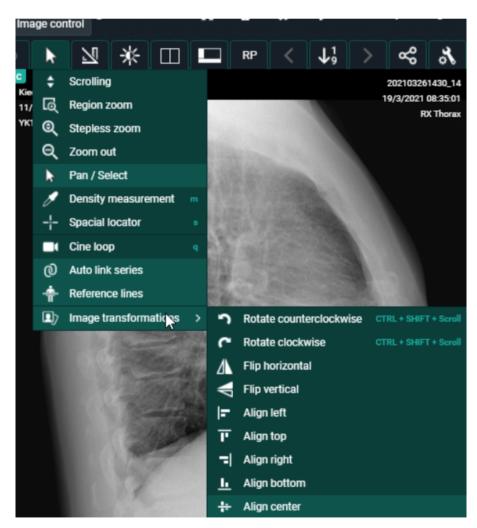
The **last saved presentation state** will be displayed.

Info

A user can only save the presentation state if he is a source admin or has the permission SavePresentationState.

5.3.2 Image functions

You can customise the image to your needs, using the tools available in "Image control".

- **Scrolling** Function of the scroll wheel. Hold down the left mouse button and move the cursor over the image. You can now scroll through the series.

- **Region zoom** Zoom in on a specific region.

- **Stepless zoom** Zoom in on the image without intermediate steps.

- **Zoom out** Zoom out.

- **Pan/Select** You can still drag the image even if you've zoomed in on it.

- **Density measurement**Select this function and hold down the left mouse button to measure the density in Hounsfield units (HU), optical density (OD) or unspecified units (US).

- **Spacial locator** This function is used to navigate to the same reference point in series. It only works for CT and MRI images.

- **Cine loop**Use this function to automatically scroll through all images without actually using the scroll wheel. The used frame rate is the value, specified in DICOM Tag RecommendedDisplayFrameRate.

  In case this value is not available, by default a frame rate of 30 fps is used. You can also adjust the scrolling speed yourself.

- **Auto link series** Different series with the same "frame of reference" are linked automatically for simultaneous scrolling.

- **Reference lines**This tool is activated by default and uses lines to indicate the position of the selected image compared to another series. This tool only works for CT and MRI images.

- **Image transformations**For more information, see Image transformations (refer to page 210)

💡 **Tip:**

To zoom the image you can use the following short cut: SHIFT (keyboard) + scroll (mouse wheel)

To zoom the image to 100% (1 pixel on the image = 1 pixel on the screen), press '=' on your keyboard

When performing a zoom action, an orange indicator dot is displayed at the bottom left until the image is fully loaded.

📝 **Note:**

Touch events on mobile devices

Independent of the selected image control or image editing tool, it is possible to drag or zoom in or out on the image:

- Zoom: pinch in or out on an image to zoom in or zoom out
- Pan: Hold two fingers on the image and move them simultaneously to drag the image

---

All image control and image editing tools can be used when set active by touching the screen with one finger.

E.g.: Use the scroll tool by sliding one finger up and down the image

⚠️ **Caution:**

Be aware: the following features cannot be used when your device is on IOS12:

- Region Zoom
- Stepless Zoom
- Zoom out

You can use pinching in/out instead, as described above.

- Pan
- Density measurement
- Spatial locator
- Window level

You can use presets.

- Adding and modifying annotations

5.3.3 Annotations

When clicking "Annotations" a menu is displayed, allowing to perform the following measurements:

- **Ruler** Length measurement: measurement between two points.
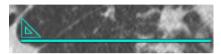
💡 **Tip:**

When drawing a ruler that is near horizontal, you can have it adjusted automatically to a ruler that is perfectly horizontal with respect to the image by holding the SHIFT button.

You can recognize it by the following symbol:

The same applies for a near vertical ruler.

- **Circle** Circle with midpoint identifier and measurement of the radius.
- **Line** The line between two points.

🛑 **Important!**

When drawing a line that is near horizontal, it will be adjusted automatically to a line that is perfectly horizontal with respect to the image.

The same applies for a vertical line.

You can recognize it by the following symbol:

If this behavior is undesired, press the SHIFT key while drawing the line.

- **Angle** Three-point angle measurement: the angle defined by selecting three dots.
- **Cobb angle** The angle, defined by drawing two lines.
- **Center edge angle** Centre edge angle with angle measurement: Centre edge angle that creates an angle with the tangent of the figure on which it is placed.
- **Vertical height** The perpendicular line between 2 points.
- **ROI-rectangle** Density measurement for a rectangular area. Displayed values are: A: total area; Dens: average value for the area; Min: minimum value within the area; Max: maximum value within the area; σ : standard deviation.
- **ROI-ellipse** Density measurement for a elliptical area. Displayed values are: A: total area; Dens: average value for the area; Min: minimum value within the area; Max: maximum value within the area; σ : standard deviation.

- **ROI-polygon** Density measurement for a freehand annotation. Displayed values are: A: total area; Dens: average value for the area; Min: minimum value within the area; Max: maximum value within the area; σ : standard deviation.

- **Arrow**Arrow with text box to add text.

- **Length loss**Measure the difference in length between 2 lines.

- **Length ratio**Measure the length ratio of 2 lines.

- **Text** Text that can be added as an annotation to images.

- **Spine labels** Placing of the spine labels on the vertebrae.

> 📝 **Note:**
>
> - Spine label annotations will be placed on the image itself + 3 slices before and 3 slices after
> - Spine labels on the image itself will be in lighter green compared to the other images
> - The spine label tool detects automatically if the user wants to label from top to bottom or bottom to top (cranial - caudal)

- **Publish** Make your annotations visible for all users that have access to the study.

- **Manage annotations** Manage the annotations, displayed on the image.
  - **My annotations** Select if your personal annotations, marked in green, are displayed or not.
  - **Radiologist annotations** Select if the annotations made and published by the creator of the report or received through DICOM, marked in white, are displayed or not.
  - **Other annotations** Select if annotations made and published by other users, marked in yellow, are displayed or not.
  - **Show all** Show all of the above annotations.
  - **Hide all** Hide all of the above annotations.
  - **Delete** Delete the annotation you have selected. (only for own annotations)
  - **Delete all** Delete all of your own annotations.

💡 **Tip:**

For ease of use, you can use the following short cuts:

Length measurement	R + left mouse button down
Circle	C + left mouse button down
Line	L + left mouse button down
Angle measurement	G + left mouse button down
Cobb angle measurement	A + left mouse button down
Text	T + left mouse button down
Spine labels	V + left mouse button down
ROI ellipse	E + left mouse button down
Length Loss	D + left mouse button down
Length Ratio	H + left mouse button down
Show all annotations	CTRL + A (keyboard)
Hide all annotations	CTRL + A (keyboard)
Delete Annotation	Select annotation + 'Delete' button

📝 **Note:**

Administrators

Administrators of a radiology service can delete annotations, by selecting the annotation and hitting the 'Delete' button.

📝 Note:

Touch events on mobile devices

Independent of the selected image control or image editing tool, it is possible to drag or zoom in or out on the image:

- Zoom: pinch in or out on an image to zoom in or zoom out
- Pan: Hold two fingers on the image and move them simultaneously to drag the image

All image control and image editing tools can be used when set active by touching the screen with one finger.

E.g.: Use the scroll tool by sliding one finger up and down the image

⚠️ Caution:

Be aware: the following features cannot be used when your device is on IOS12:

- Region Zoom
- Stepless Zoom
- Zoom out

You can use pinching in/out instead, as described above.

- Pan
- Density measurement
- Spatial locator
- Window level

You can use presets.

- Adding and modifying annotations

ⓘ **Important!**

The PACSonWEB measuring functions contain length measurements, angle measurements and density measurements based on the information that is provided by the original modality.

Length measurements are expressed in millimeters (mm).
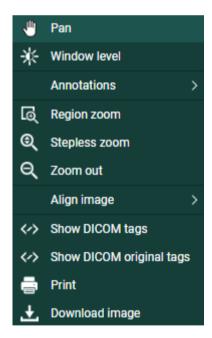
Angle measurements are expressed in degrees (°).

Density measurements are expressed in the unit, as provided by the modality : Hounsfield Unit (HU), Optical Density (OD) or UnSpecified (US).

For measurement precision within the PACSonWEB environment, PACSonWEB relies on the precision of the information that is provided by this modality.

In case a measurements displays "N/A" as the resulting value, it implies that the original DICOM images do not contain the required information to perform a quantitative measurement.

The accuracy of the modality is defined by the PixelSpacing that can be verified by performing a right click on the related image and selecting the option "Show DICOM tags".

The resolution (x,y) is available in the Dicom Tag "PixelSpacing" (0028,0030) and is expressed in mm.

0028,0004	PhotometricInterpretation	MONOCHROME1
0028,0008	NumberOfFrames	1
0028,0010	Rows	4740
0028,0011	Columns	3540
0028,0030	PixelSpacing	0.05 0.05
0028,0100	BitsAllocated	16
0028,0101	BitsStored	12
0028,0102	HighBit	11

The resulting value for a measurement within PACSonWEB, will always be displayed with two decimals as a result of the calculations, performed on the data provided by the modality.

A maximal deviance on a performed measurement of

$$\sqrt{(x^2 + y^2)}$$

must however be taken into account.

The accuracy of the different measurements have been validated for length measurements up to 0,01 mm and up to 1° for angle measurements.

In case a measurement is made in another CE class IIa approved DICOM viewer for comparison, it must be taken into account that the measurement accuracy is affected by the coordinates of the start and end point of the line. PACSonWEB only allows measurement points to be set on pixel

crossings. In case the DICOM viewer, used for comparison, allows any point to be selected to perform a measurement, again, a maximal deviance of

$$\sqrt{(x^2 + y^2)}$$

can occur.

Besides the measurement accuracy, we take a rounding factor into account of maximum 0,05 mm for comparison of both resulting values since it cannot be guaranteed that the user who performs the measurement selects exactly the same pixels on the image in both viewers.

In case a measurement is performed in an external PACS system and imported in PACSonWEB, the imported measurements can differ slightly when displayed in PACSonWEB. As the coordinates of the measurement points can deviate from the points, used in PACSonWEB, the resulting value will also deviate. In order to indicate

that the value in PACSonWEB is not exactly the same as the one from the original measurement, the value will be preceded by a '~'.

5.3.4 Other image editing tools

You can find the following image editing tools in the toolbar:

- Window level: Use this function to modify the brightness and contrast of the selected image.

- Layout: Use this function to change the screen layout.

- Fullscreen: Use this function to display the series in full-screen mode.

- Visible Elements: Use this function to show/hide the title bar, the series picker (refer to page 192), the history (refer to page 188) and the overlays.

- The available reading protocols for the currently opened study.

- Previous step in the reading protocol

- The steps for the (automatically) selected reading protocol

- Next step in the reading protocol

![Dedalus]

📝 **Note:**

> The available reading protocols can differ, depending on number of displays, study type, available series ...

Window level and Invert

If you click on **Invert**, everything that was dark in the series will become bright and vice versa.

Use 'Window level' to modify the brightness and contrast of the selected image.

Look up the image on which you wish to apply window leveling. Click on 'Window level'.

By holding the left mouse button down and moving the mouse to the left / right you can decrease / increase the value for Window.

By holding the left mouse button down and moving the mouse backward / forward you can decrease / increase the value for Level.

If all images of a series have the same initial value for window and level, the window leveling will be applied to all images.

In case images within a series have different values for window and level, the window leveling will only be applied to the selected image.

To support window level on images with higher bit values, the default change in value for the Window or Level is doubled per extra bit.

This means window levelling reacts faster on the higher bit images.

To use the normal behavior click the SHIFT button + drag.

Manually entering Window level value:

Click on the label of Window or Level and fill in the desired value.

If you click "Window level" in the menu now, by default "Custom" will be selected. To return to the initial image representation, click "original".

💡 Tip:

Depending on the study type, the menu "Window level" contains several predefined Window/Level settings (presets).

If you wish to take a closer look at the lungs, for example, click on 'Lung'.

You can use the following shortcuts:

Invert	CTRL + I
Image in initial representation	0
Preset Abdomen	1
Preset Bone	2
Preset Head	3
Preset Lung	4

⚠️ Warning:

You won't find these presets for every customer. Depending on where the study was done, you will find presets in the 'Window level' menu.

Note:

Touch events on mobile devices

Independent of the selected image control or image editing tool, it is possible to drag or zoom in or out on the image:

- Zoom: pinch in or out on an image to zoom in or zoom out
- Pan: Hold two fingers on the image and move them simultaneously to drag the image

All image control and image editing tools can be used when set active by touching the screen with one finger.

E.g.: Use the scroll tool by sliding one finger up and down the image

⚠️ Caution:

Be aware: the following features cannot be used when your device is on IOS12:

- Region Zoom
- Stepless Zoom
- Zoom out

You can use pinching in/out instead, as described above.

- Pan
- Density measurement
- Spatial locator
- Window level

You can use presets.

- Adding and modifying annotations

5.3.5 Share

You can share the study, print the report and download the images using functions.

Share study

If you click on 'Share study', you will see the same pop-up as when you share a study from the overview page (Share study (refer to page 114)).

Print reference number

You can print a reference number for the opened study from the study page.

For more information, see Print reference code from the explore page (refer to page 151).

Print report

The following window will be displayed if you click on this function. You can now print the report.

O'Barkeep, Erin (°04/07/1962)

Study description: **RX Chest**
Study date: **22/01/2016 14:46**
Reference Number: **201601220042**

http://demo.pacsonweb.com

Sint-Niklaas, 23/02/2016

Geachte collega,

Verslag over Uw patiënt:
O'BARKEEP ERIN, °04/07/1962

RX rechterschouder en AC-gewricht.

Controle na trauma.
Normale glenohumerale verhoudingen.
Subluxatie van het AC-gewricht links.

Echografie van de rechterschouder:

Duidelijke opzetting van de gewrichtskapsel van het AC-gewricht, compatibel met sequel van elongatietrauma met (partiële) ruptuur.
Geen hydrops van het schoudergewricht.
Geen scheur van de rotator cuff.
Normale lange bicepspees.

BESLUIT:

(Sub) luxatiestand van het AC-gewricht rechts na trauma.

Met beste dank en collegiale groeten,

PACSonWEB

💡 Tip:

Do you want to know the reference number of the study? You can find this in the report heading.

If you scan the QR code, you will be taken to the login page. Enter the reference number and the date of birth of the patient here to view the study.

Download images

You can view images in your own PACS or viewing software when you click on 'Download images'.
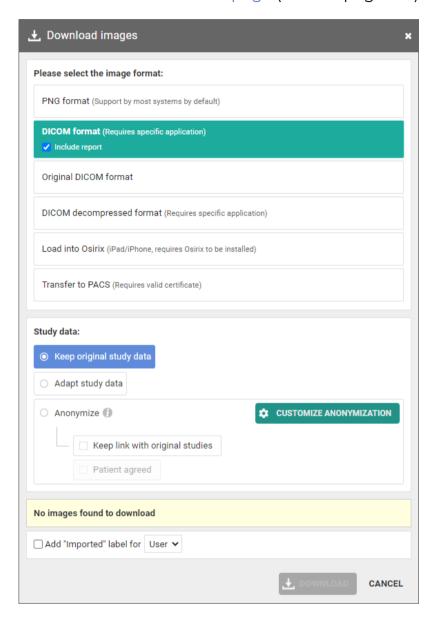
With this option you can:

- download a ZIP file with images in PNG format (standard image format)
- download a ZIP file with images in DICOM format (medical standard)
- download a ZIP file with images in uncompressed DICOM format

- load the images into your Osirix application (Mac only)
- send the images to your own PACS system

A detailed explanation about the various options is available under Downloading studies from the overview page (refer to page 169).

⚠️ **Warning:**
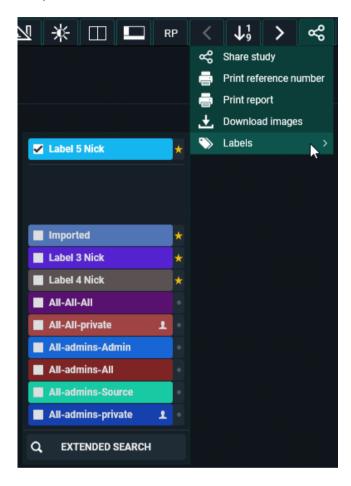
If you wish to import the images into your own PACS, an import tool must first be installed by Dobco Medical Systems.

Labels:

From this drop down, you can manage the labels for the study. The same way of working applies as for the overview page.

The full explanation on the usage of labels can be found here: Labels (refer to page 185).

5.3.6 Administration

⊘ **Important!**

This function is only available if you are an administrator of a radiology service.
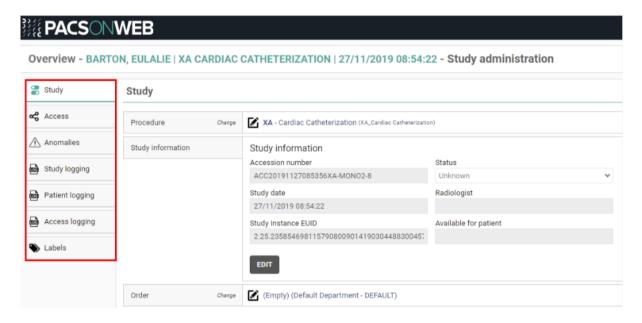
Click on the 'Study administration' button to open the administration page.

Through 'Study administration' you can

- Study: view and (partially) change the study and patient information
- Access: view and (partially) change access settings
- Anomalies: view all anomalies that have been registered for the study and patient
- Study Logging: consult the logging on changes that have been made to the study
- Patient Logging: consult the logging on changes that have been made to the patient
- Access Logging: consult the logging on access to the study
- Labels: Consult / add / remove labels from an study

5.3.6.1 Study information
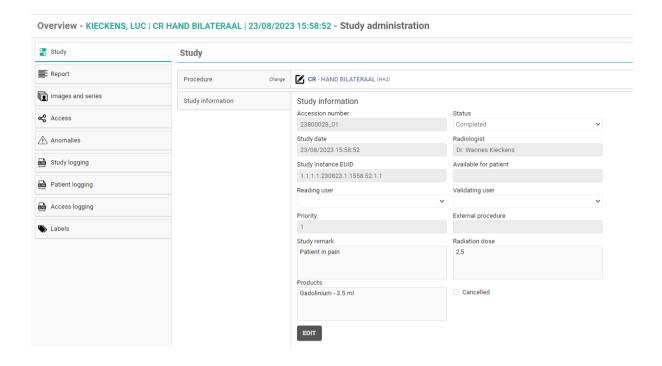
⚠ Important!
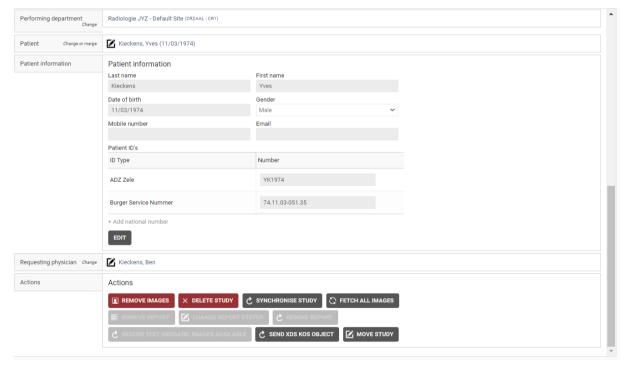
Changing study information on PACSonWEB is in most cases merely a temporary solution. The information must be changed in the PACS and RIS system.

If not, it may occur that the initial information is synchronized and hereby restored.

To consult the study information, go to the administration pages and select 'Study'.

Depending on the section within the page, it is possible to consult or consult and modify the displayed information.

Overview - **KIECKENS, LUC | CR HAND BILATERAAL | 23/08/2023 15:58:52** - **Study administration**

⬚ Study	
☰ Report	
🖼 Images and series	
⧉ Access	
⚠ Anomalies	
📷 Study logging	
📷 Patient logging	
📷 Access logging	
🏷 Labels	

Study

Procedure	*Change*	📝 **CR** - HAND BILATERAAL (HA2)

Study information

Study information

Accession number	Status
23800028_01	Completed ⌄

Study date	Radiologist
23/08/2023 15:58:52	Dr. Wannes Kieckens

Study Instance EUID	Available for patient
1.1.1.1.230823.1.1558.52.1.1	

Reading user	Validating user
⌄	⌄

Priority	External procedure
1	

Study remark	Radiation dose
Patient in pain	2,5

Products

Gadolinium - 3.5 ml   ☐ Cancelled

EDIT

Performing department *Change*	Radiologie JYZ - Default Site (CRZAAL - CR1)
Patient *Change or merge*	📝 Kieckens, Yves (11/03/1974)
Patient information	

Patient information

Last name	First name
Kieckens	Yves

Date of birth	Gender
11/03/1974	Male ⌄

Mobile number	Email

Patient ID's

ID Type	Number
ADZ Zele	YK1974
Burger Service Nummer	74.11.03-051.35

+ Add national number

EDIT

Requesting physician *Change*	📝 Kieckens, Ben
Actions	

Actions

🖼 REMOVE IMAGES	✕ DELETE STUDY	⟳ SYNCHRONISE STUDY	⟳ FETCH ALL IMAGES
☰ REMOVE REPORT	📝 CHANGE REPORT STATUS	⟳ RESEND REPORT	
⟳ RESEND TEXT MESSAGE: IMAGES AVAILABLE	⟳ SEND XDS KOS OBJECT	📝 MOVE STUDY	

Section: Procedure

To change the procedure, click on 📝

In the 'New procedure' field, start typing the name of the new procedure, select the desired procedure and click on 'Change procedure'.

The procedure has now been updated in PACSonWEB.
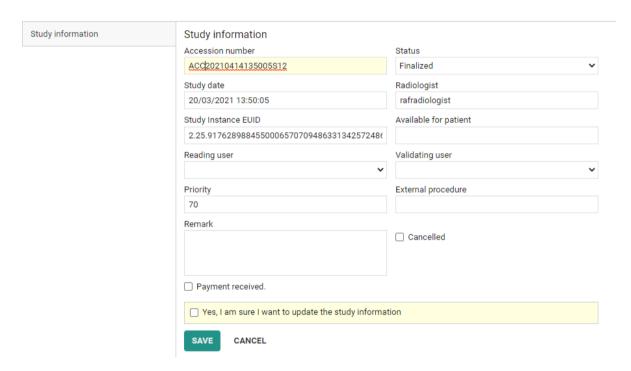
Section: Study information

To change the study information, click **Edit**.

This will render all fields in this section editable.

In case patients need to pay for access to their studies, you can indicate manually if the payment has been received.

In case the checkbox "cancelled" is checked, the study will only be accessible for members of the source admin group.
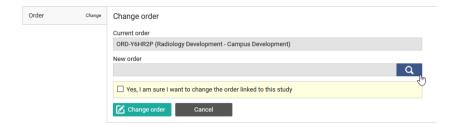
If you have changed one of the fields, check the box "Yes, I am sure I want to update the study information" and then click SAVE .

The study information has now been updated in PACSonWEB.

Section: Order

To change the Order, click .
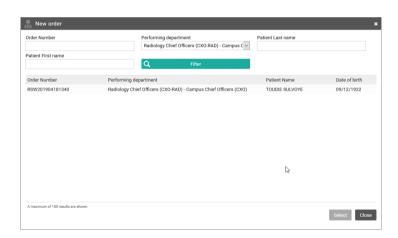
You can look up the correct order in the system by clicking .

This will open the following look up screen, allowing to search order numbers registered in PACSonWEB, based on

- Order Number
- Performing Department
- Patient First Name
- Patient Last Name

Select the appropriate Order Number from the Search Results and Click Select.

Check the option "Yes, I am sure I want to change the order linked to this study" and click Change order to update the Order in PACSonWEB.

Section: Order Information

To maintain the Order and modify only the order information, click **Edit**.

If you have modified one or more fields, check the option "Yes, I am sure I want to change the order linked to this study" and click **Save** to register your modifications in PACSonWEB.

Section: Performing department

From this section it is possible to change the Performing department and the Examination Room.

If you have modified one of these fields, check the option "Yes, I am sure I want to change the performing department linked to the study" and click
CHANGE PERFORMING DEPARTMENT

Section: Patient

If the study is listed with the wrong patient, you can change this under 'Change or merge patient'. Click [edit icon] to open the following window:

Patient	Change or merge	Change or merge patient
		Current patient
		DUMMY1, AB C (12/12/1965)
		New patient
		[search]
		☐ Yes, I am sure I want to change or merge the patient linked to this study
		[✎ Change patient] [⚙ Merge patients] [Cancel]

You can use [search icon] to search for a patient who is already registered in PACSonWEB through another exam.
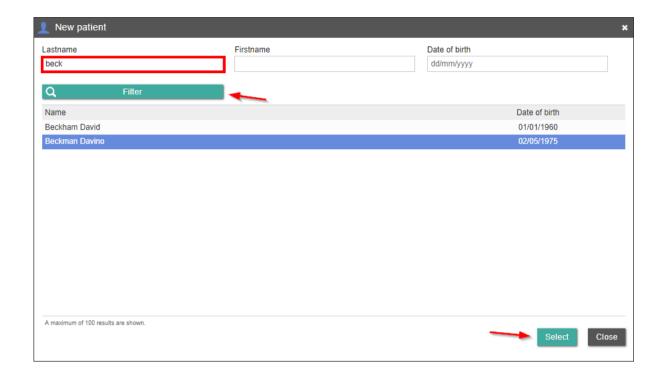
Within the pop-up, enter a few search criteria and select 'Filter'.

You will now see an overview of the patients that meet your criteria.

Highlight the patient of interest and click Select.

![Note icon] **Note:**
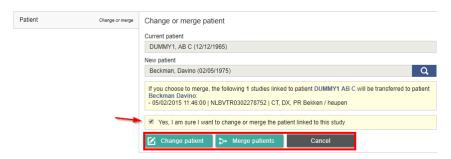
> If you cannot find this patient, you will have to change the patient information under 'Patient information'.

Before you can make any changes to the patient, you must check the box "Yes, I am sure I want to update the study information".

You can now choose to change the current patient to the new patient or merge both patients.

When you click Change patient or Merge patients, the study's patient information will be updated.

⚠️ Important!

If you choose the change option, only this one study, will be linked to the newly selected patient.

Afterwards, both the initial patient and the selected patient will still exist in PACSonWEB.
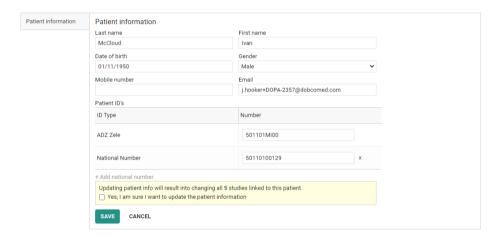
If you choose the merge option, all studies, related to the initial patient will be linked to the newly selected patient.

Afterwards the initial patient will no longer exist.

Section: Patient information

If you were unable to find the patient, you can change the patient information manually.

Select **Edit** to render the fields editable.

If you've changed one of the fields, click on "Yes, I am sure I want to update the study information" and then on SAVE .

The patient information has now been updated in PACSonWEB.

Section: Requesting physician

If you wish to change the study's requesting physician, click ✏️ to open the following window:

Start typing in the 'New physician' field. The corresponding names will be displayed.

Select the correct name and click on ' Change requesting physician ' to update the requesting physician for this study.
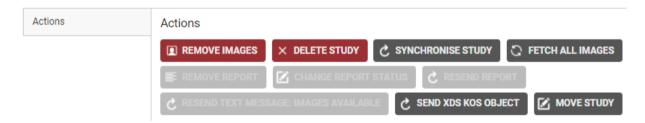
Section: Expired images

This section gives an overview on the expiration time for the images per modality.

It is not possible to make modifications in this section.

Section: Actions
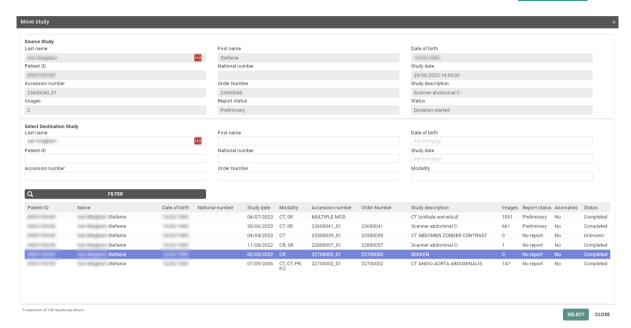
You can use 'Actions' to

- Delete the images from PACSonWEB
- Delete the entire study from PACSonWEB
- Synchronize the exam on PACSonWEB with the local PACS system (can only be used in case images are sent using the PACS Push mechanism; Optional: available if the radiology department has fetch activated)
- Fetch all images from the local PACS system in case not all images are available (anymore) through filtering or because the retention period has expired (Optional: available if the radiology department has fetch activated)
- Delete the report from PACSonWEB
- Change the status of the report to Draft, Preliminary or Validated (only possible in case a report is available)
- Resend the report (only possible in case a report is created or adapted in PACSonWEB and a link with the RIS system of the related source has been configured)

- Resend text message (only possible if the source sends a text message to the patient when images are available).
- Send XDS KOS Object is an option, configurable per source
- Move Study: Possibility to move the content of this study to another study
  To look up the correct study, select it by clicking it and click SELECT
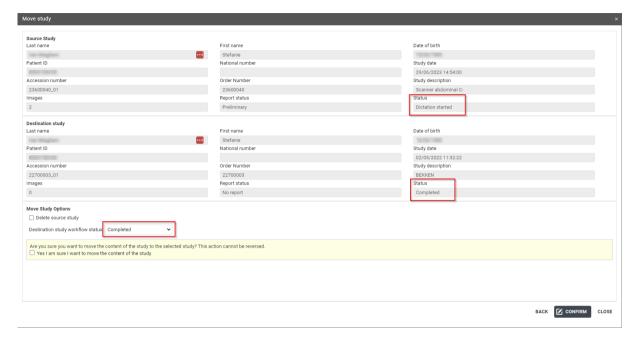
If you want to delete the "Source study", tick the box next to **Delete source study** and select the workflow status of the "Destination study" in the drop down list.

The Destination study workflow status dropdown will by default have the same status as your selected Destination study, unless the status of the Destination study is lower than the Source study, for example:

- If the 'Source study' had the status 'Sent', the Destination study workflow status dropdown will be 'Sent'.
- If the 'Source study' had status 'Completed', the Destination study workflow status dropdown will be 'Completed'

The last step is to confirm that you want to move the content of the study.

When clicking **CONFIRM**, a summarizing dialog is shown and you can choose to open the selected study or, in case it was not deleted, reload the current study.

5.3.6.2 Report

The report tab contains all information about the report.

If there is more than 1 saved report, the versions can be compared to each other to see the differences between two versions.
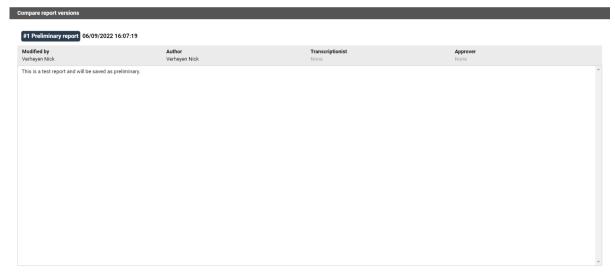
In the different columns, the user can see the Author, Transcriptionist and the Approver of the report.

The creation date is shown in the last column.

Clicking on the line itself will display the report.

Compare report versions:

To compare 2 reports, enable the checkboxes and click **Compare.**

The reports are compared side by side, the changes will be shown in green.

5.3.6.3 Images and Series
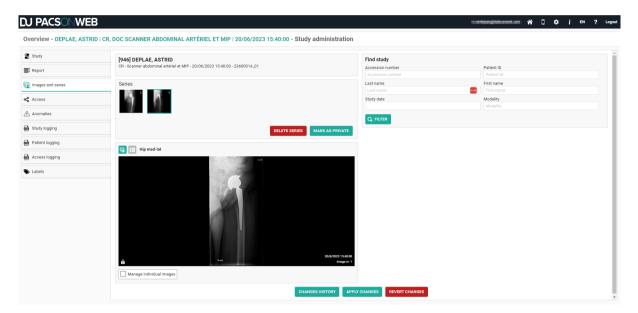
📝 **Note:**

If allowed by the source of a study, as a source admin, you can remove images or series from a study, create a new series or move images to another study.

In order to modify the images and series of a study, go to "Study administration" and select 'Images and Series'.

1. Select a series and click DELETE SERIES to delete the entire series from the study.

    DICOM encapsulated PDF's can only be removed in this way since it is a DICOM instance.

    Other PDFs can be removed in the viewer (cf Series picker (refer to page 192) - Section Report, documents & Order information)

2. Select a series and select **Manage individual images** to remove or add a single image to the selected or a new series.
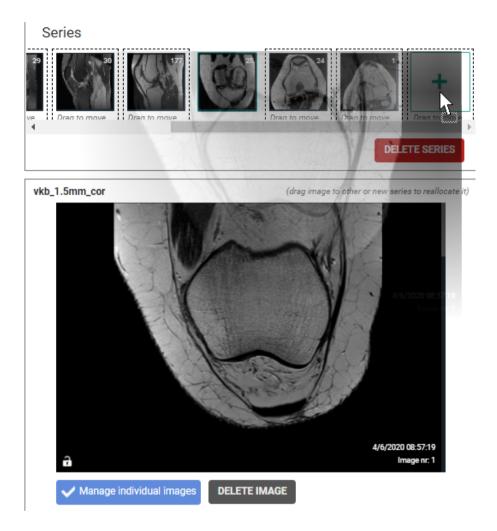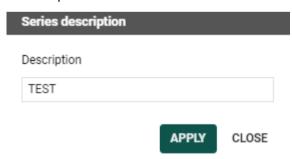
Add an image to a series:

You can add an image to a selected or new series by dragging it onto the desired series.

If you have created a new series, you need to manually enter the Series Description.

Remove an image from a series:

You can remove an image from a series by scrolling through the series to the image of interest and clicking Remove Image .

3. Marking series as private

It is possible to mark series as private, making the series visible only to source administrators or users with the associated permission.
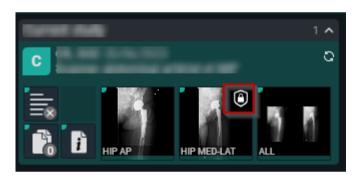
Marking a series as private, can be done by selecting the series and clicking on the MARK AS PRIVATE button.

After marking a series as private, a lock icon will be displayed on the thumbnail.

Afterwards this is also visible in the series picker with a lock icon in the thumbnail.
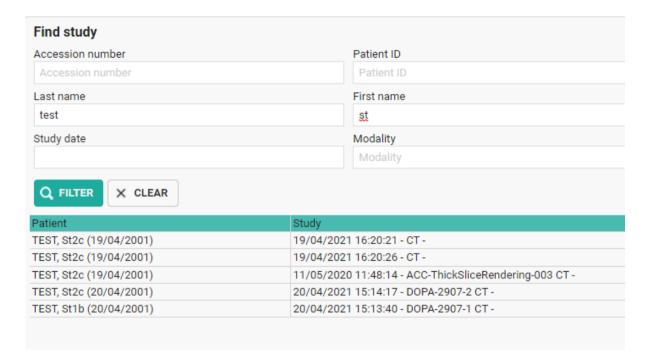
You can undo this by selecting the private series and clicking MARK AS PUBLIC

4. You can move series or images from one study to another study by looking it up, based on:

Select the appropriate study from the resulting list.

Find study

Accession number	Patient ID
Accession number	Patient ID
Last name	First name
test	st
Study date	Modality
	Modality

🔍 **FILTER**   ✕ **CLEAR**

Patient	Study
TEST, St2c (19/04/2001)	19/04/2021 16:20:21 - CT -
TEST, St2c (19/04/2001)	19/04/2021 16:20:26 - CT -
TEST, St2c (19/04/2001)	11/05/2020 11:48:14 - ACC-ThickSliceRendering-003 CT -
TEST, St2c (20/04/2001)	20/04/2021 15:14:17 - DOPA-2907-2 CT -
TEST, St1b (20/04/2001)	20/04/2021 15:13:40 - DOPA-2907-1 CT -

Select a series from the first study and click **MOVE SERIES** to move it to the second study.
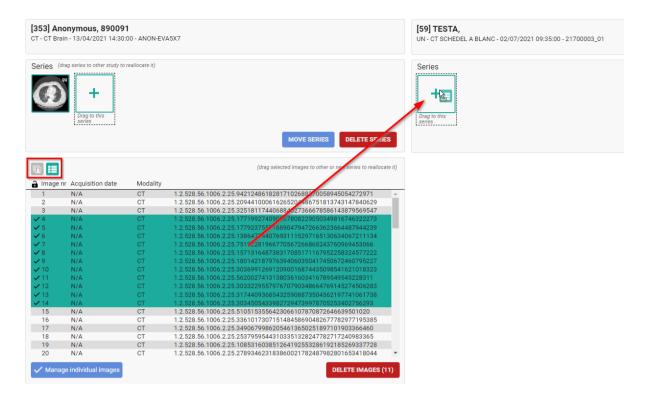
To move a single image, select a series and tick **Manage individual images**, look up the image and drag it onto an existing or new series of the second study.

If you want to move **multiple images,** you can switch to the image list.
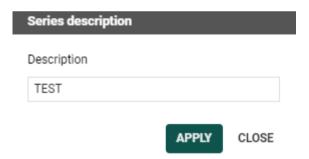
Select the images that need to be moved by holding the CTRL button and clicking the image lines. You can also select a range by holding the SHIFT button.

When the images are selected, drag them to the desired study and series.

If you have created a new series, you need to manually enter the Series Description.

After you have made the modifications, you can choose to register or cancel them by clicking APPLY CHANGES or REVERT CHANGES.

Additional information on manipulations:

- Images and series cannot be moved when new images or series are still being received

- In case a move or delete operation fails, an anomaly will be created

- By clicking CHANGES HISTORY you will get a detailed overview of all manipulations that have been done with the study.

5.3.6.4 Access to the study

From the 'Access' tab, you can check and modify the information related to:

- who has access to the exam
- in which ways the exam can be accessed
- when access to the exam was granted

All registrations of actual access to the exam is logged in Study logging (refer to page 252).
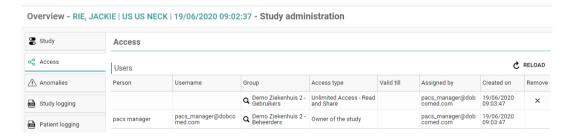
Users

In the 'Users' section is listed for which users and user groups, the exam is accessible from the explore page.

By clicking a groups name, you can consult the details for the group (members, address, contact information, ...)

Furthermore, you can see what type of access a user has, until when the access is valid and when and by whom the access was granted.

A specific access can be withdraw by clicking the cross icon at the end of the line.

Unlocked (Break-the-glass)

This list contains all users that have unlocked the exam for access, when and for what reason.

Unlocked (break-the-glass)				Reload
Username	Unlocked on	Valid till	Reason	
...test@dobcomed.com	26/07/2019 07:44:17	28/07/2019 07:44:17	Compare	

PACS (Transferred)

This list contains all actions on forwarding or downloading the exam to a local PACS system.

PACS (Transferred)					Reload
Date	Type	Sent by user	Source (Q/R Server)	Current status	
22/12/2017 10:54:18	Automatically transferred	pacs_manager@dobcomed.com	Demo Hospital 1 (clientID: 2)	Completed (100%)	
22/12/2017 10:28:13	Downloaded	N/A	Demo Hospital 1 (Server: 2)	Completed (100%)	
22/12/2017 10:23:17	Forwarded	t.willockx@dobcomed.com	Demo Hospital 1 (Server: 2)	Completed (100%)	

Buckets

This list contains all buckets to which it belongs and all corresponding details.

Buckets								Reload
Code	Email destination	Type	Verification Type	Valid till	Assigned by	Created on	Remove	
POW058159	...@gmail.com	Images and report	Date of birth + E-mail One Time Password	22/09/2016	...@dobcomed.com	22/08/2016 09:08:05	×	
POW707431	...@gmail.com	Images and report	Date of birth + E-mail One Time Password	23/09/2016	...@dobcomed.com	23/08/2016 08:29:38	×	
POW911357		Images and report	Date of birth only	29/10/2016	...@dobcomed.com	29/09/2016 16:01:19	×	
POW842348	...@gmail.com	Images and report	Date of birth only	27/02/2017	...@dobcomed.com	27/01/2017 13:32:03	×	
POW714416		Images only	Date of birth only	07/01/2018	...@dobcomed.com	07/12/2017 14:36:21	×	

Access to a bucket can be revoked by clicking the cross icon at the end of the line.

When bucket access is withdrawn, you have the possibility to remove the exam from the bucket REMOVE STUDY FROM BUCKET or to remove the entire bucket REMOVE FULL BUCKET

Reference number

This list contains all reference numbers that can be used to obtain access to the exam through the patient login.

Access through a specific reference number can be withdrawn by clicking the cross icon at the end of the line.

From the list, it can be seen when each reference number was generated and from when until when it can be used, as allowed by the source.
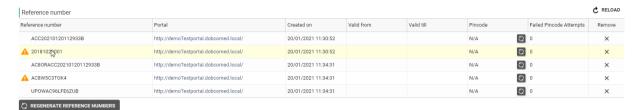
In case the "Valid from" and "Valid to" date is not registered, there is no date restriction on the use of the reference number.

In case the radiology department requires the patient to pay for access to the study, access can be secured with an additional Pincode, provided to the patient upon payment.

This table lists the registered Pincode for each reference number and the number of failed attempts to enter the Pincode.
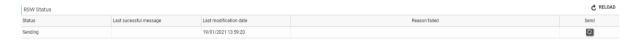
A radiology department can impose a minimum complexity for its reference numbers. In case a reference number does not fulfill this requirement, it is marked with an icon and cannot be used to access the study.

Reference number	Portal	Created on	Valid from	Valid till	Pincode		Failed Pincode Attempts	Remove
ACC20210120112933B	http://demoTestportal.dobcomed.local/	20/01/2021 11:30:52			N/A		0	×
⚠ 20181021001	http://demoTestportal.dobcomed.local/	20/01/2021 11:30:52			N/A		0	×
AC8ORACC20210120112933B	http://demoTestportal.dobcomed.local/	20/01/2021 11:34:31			N/A		0	×
⚠ AC8W5C3T0K4	http://demoTestportal.dobcomed.local/	20/01/2021 11:34:31			N/A		0	×
UPOWAC96LFE6ZUB	http://demoTestportal.dobcomed.local/	20/01/2021 11:34:31			N/A		0	×

REGENERATE REFERENCE NUMBERS

The button 'Regenerate reference numbers' allows you to add the reference numbers again, according to the configuration of the sending radiology department.

RSW Status

It's possible to send the study to RSW again by clicking on the Send button at the end of the line:

Status	Last sucessful message	Last modification date	Reason failed	Send
Sending		19/01/2021 13:59:20		

Confirm your request by clicking SEND.

5.3.6.5 Anomalies

In case a study on PACSonWEB deviates from the corresponding study on the local PACS system, an anomaly will be registered. In this case, the anomaly is clearly indicated within the study page (PACSonWEB study page (refer to page 188)).

When opening the study administration pages for a study that has an anomaly registered, the anomalies tab will be displayed automatically and the label will be marked in orange.

⚠ **Warning:**

The data of each listed anomaly are the data at the moment the anomaly was registered.

If patient or study data have been modified after the registration of the anomaly, these modifications will NOT be taken into account in the anomaly.

Anomalies on study level

The following anomalies will be reported:

- national number in DICOM files differs from HL7 information

- date of birth in DICOM images differs from HL7 information
- no or incorrect date of birth registered
- number of images in PACSonWEB differs from the number of images in the local PACS (taking into account any applied filtering)
- national number already registered with another patient through DICOM
- image or HL7 message received with the same study instance EUID or accession number but with other patient ID
- study for patient without ID is changed to a patient with ID via DICOM or HL7
- incompatibility with CvKO. (scroll to bottom of the page for more explanation)
- studies of different patients have been merged
- failed move or delete operation of image or series

For each anomaly, all relevant information is displayed in the overview.

From the overview, the related exam can be opened by clicking the study link.

Anomalies on patient level

The following anomalies will be reported:

- Multiple internal patient IDs have been registered for a single patient
- Received national number already linked to another patient
- Date of birth differs from date of birth that was registered with a previous exam
- National number already registered with another patient through HL7
- Patient without ID from DICOM (scroll to bottom of the page for more explanation)
- Patient without name from DICOM: a patient name is generated ("UNK_"+ [source abbreviation]+unique number) and used (scroll to bottom of the page for more explanation)

For each registered anomaly, the following information is shown:

- date and time when the anomaly was registered
- the anomaly type + the required access level of a user to be able to open the study
- a description of the anomaly
- the possible corrective measures

Overview - DEMETRIA, ELKE | MR US NECK | 19/01/2021 17:08:26 - Study administration

	Study anomalies			
Study	**Anomaly date**	**Type / Access restriction**	**Description**	**Actions - Resolved?**
Images and series				Ignore
Access				Keep patient 8811 - 8990, ANONYMOUS (01/01/1900)
⚠ Anomalies		Study anomaly: The patient for this study changed to another patient via DICOM	Patient PAT20210119170826 - DEMETRIA, ELKE (29/03/1989) was received where the current patient is 8811 - 8990, ANONYMOUS	Change to patient PAT20210119170826 - DEMETRIA, ELKE (29/03/1989)
Study logging	19/01/2021 17:17:31	Source administrators	(01/01/1900). Warning: study information of both patients could have been merged!	Merge patients
Patient logging				Remove study
Access logging				
Labels	**Patient anomalies**			
	Anomaly date	**Type / Access restriction**	**Description**	**Actions - Resolved?**
			No results found	

In case a national number was registered for two different patients, it will be possible to assign this to the first patient, the second patient or to merge both patients.

For the latter option, the following screen is displayed to perform the merge in a controlled way:

Once a solution has been selected, it will be marked in green. When hovering the cursor over the label, it is displayed by whom and when the selected solution was applied.

In case all registered anomalies have been marked as solved, the notification will no longer be displayed on the study page and the label 'Anomalies' on the study administration pages will no longer be marked in orange.

Study anomaly for patient without ID or name from DICOM

After fixing the study click on "Ignore" in the action description.

Only source admins can access the studies with these anomalies.

Study anomaly for incompatibility with CvKO

When DICOM files are received with DICOM tags that do no meet the requirements, 2 possible actions are possible to fix the anomaly.

Possible actions:

● Ignore: result is that nothing will happen and the anomaly will be resolved.

● Mark as corrected: a dialog is shown to send the corrected images to POW and share the study manually with CvKO.
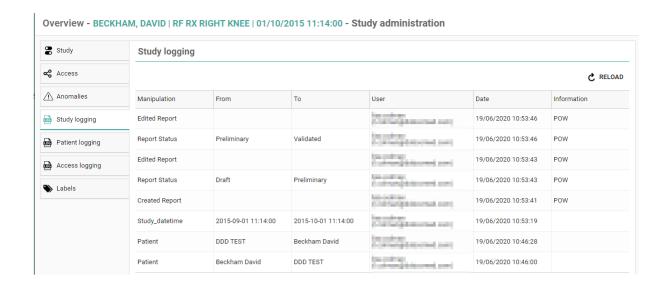
All modifications with regard to anomalies on study level are registered in 'Study Logging' (Study logging (refer to page 252)).

All modifications with regard to anomalies on patient level are registered in 'Patient Logging' (Patient logging (refer to page 253)).

5.3.6.6 Study logging
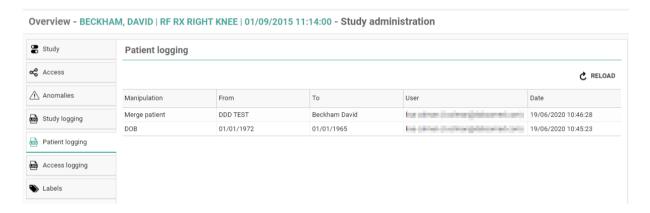
You can see who changed what with regard to the study data using study logging.

5.3.6.7 Patient logging

You can see who changed which patient data using patient logging.
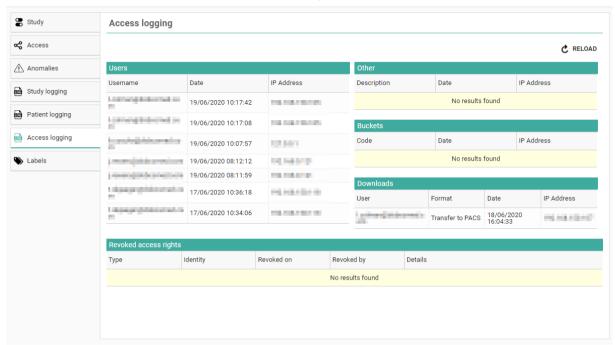
5.3.6.8 Access logging

For all types of access and in case images have been downloaded, it is registered

- how the study was accessed
- when the study was accessed / downloaded
- from what IP the study has been accessed / downloaded

For downloads, it is also registered in what format the study has been downloaded (PNG, DICOM, …)

Overview - **MCEVOY, ORALLA | US US NECK | 16/06/2020 13:47:26 -** Study administration

Study
Access
Anomalies
Study logging
Patient logging
Access logging
Labels

Access logging

↻ RELOAD

Users

Username	Date	IP Address
	19/06/2020 10:17:42	
	19/06/2020 10:17:08	
	19/06/2020 10:07:57	
	19/06/2020 08:12:12	
	19/06/2020 08:11:59	
	17/06/2020 10:36:18	
	17/06/2020 10:34:06	

Other

Description	Date	IP Address
No results found		

Buckets

Code	Date	IP Address
No results found		

Downloads

User	Format	Date	IP Address
	Transfer to PACS	18/06/2020 16:04:33	

Revoked access rights

Type	Identity	Revoked on	Revoked by	Details
No results found				

📝 **Note:**

> Buckets means that the study has been shared with a recipient without an account, he can open the study with a POW code.

For Belgium, all access through the COZO portal is registered within the "Other" overview.

Other

Description	Date	IP Address
Toegangsnummer:	15/05/2017 17:26:20	
Toegangsnummer:	15/05/2017 17:24:50	
COZO:	15/05/2017 17:22:19	
Toegangsnummer:	10/04/2017 14:59:04	
COZO:	27/02/2017 10:46:09	

5.3.6.9 Labels
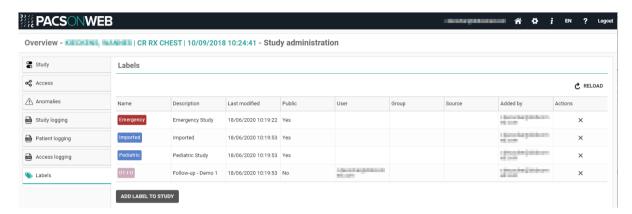
From the tab Labels, the following information is available:

● Name and description of added labels

● Date/time when the label was added to the study

- To whom the label is visible
- Who added the label

From this page it is also possible to add or remove labels to the study **ADD LABEL TO STUDY**.

5.3.7 MPR and related tools

PACSonWEB contains the following advanced image tools for multislice series:

- Multi Planar Reconstruction
- Maximum Intensity Projection
- Minimal Intensity Projection
- Multi Projection Volume Reconstruction

 Important!

MPR as supplement

All diagnosis and medical decisions based on MPR generated images (MPR, MIP, MinIP, MPVR) should always be double checked with the original series.

ⓘ Important!

MPR accuracy and resolution

The accuracy of MPR generated images depends on the quality of the original series (pixel spacing, slice thickness ...).

The images are calculated, based on the data available in the original series.

Gaps of pixel- data will be calculated to show a smooth image.

It will remain the user's responsibility to keep in mind the slice thickness and pixel spacing from the original series.

In case the slice thickness is larger than the pixel spacing, overlap between slices is not taken into account.

The used pixel spacing is calculated based on the image location of the original images

The user should be aware of lossy data visualization while judging and diagnosing a patient.

The user should also be aware that series that lost pixel- data while compressing or have an inappropriate slice thickness are not suitable for proper MPR generation.

ⓘ Important!

MIP, MinIP and MPVR calculations

While using MIP, MinIP and MPVR calculations, only one pixel is shown for the whole thickness of the slice. The user should know that only selective data is shown based on these calculations, and that it is his responsibility to double check the data with the original series.

⚠ Warning:

These functionalities are not supported on mobile devices.

The tools can only be activated for images of the following modality type:

- CT
- MR
- NM
- PT / PET
- ST / SPECT
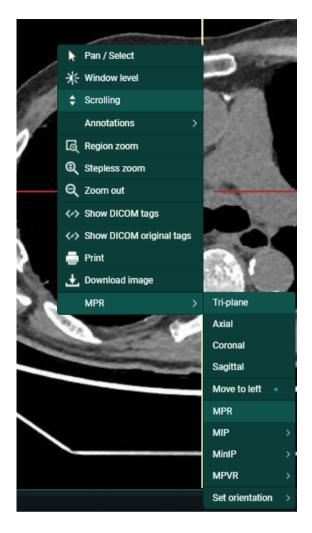
If a viewport with such a series is selected, the button "MPR" is available from the toolbar. When clicking the button, the complete list of MPR functionalities is displayed.

The "MPR" menu is also available from a right mouse click on the image.

For ease of use, you can use the following short cuts:

Activate / Deactivate MPR	CTRL + M
Show / Hide reference lines	CTRL + X
In case MPR is active:**Reset MPR** to original orientations, reset zoom factor and window level	SPACEBAR
Move viewport to left	Left arrow key

In case an image series is selected that does not support MPR, the button is grayed out in the toolbar and the option "MPR" is not listed in the context menu when performing a right mouse click on the image.

In case the MPR can not be created due to insufficient memory, the following notification will be displayed.

MPR

Cannot create MPR

The MPR volume cannot be created due to insufficient memory. Please retry later. If the problem persists, please contact your system adminitrator or PACSonWEB support.

⚠️ **Warning:**

In order to be able to generate usable MPR data the related image series must comply with each of the following conditions:

- distance between each set of consecutive slices is equal
- series consists of 10 slices or more
- series consists of 10000 slices or less
- spacing between slices is max. 10 mm
- all images within the series have the exact same orientation
- source frames are monochrome
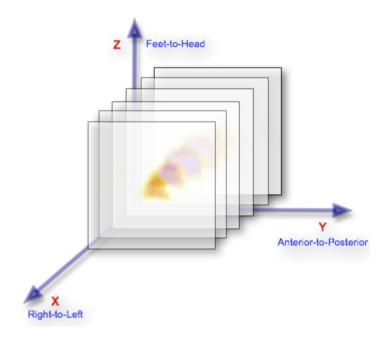
If a condition is not fulfilled an appropriate warning message will be displayed.

5.3.7.1 Available Views

The axes for MPR are considered as follows:

- X-axis = Right to Left (R to L)
- Y-axis = Anterior to Posterior (A to P)
- Z-axis = Feet to Head (F to H)

When activating MPR on an image series, the following views are available:

- Axial: slices perpendicular to the Z-axis
- Sagittal: slices perpendicular to the X-axis
- Coronal: slices perpendicular to the Y-axis
- Tri-plane: overview of these 3 views

In case MPR is activated and no specific view (axial, sagittal, coronal) is selected, the Tri-plane view will be displayed.

Each of the reference lines can be rotated.

This can be done by hovering over a reference line and drag when the rotate icon is shown.

Default behavior is that the reference lines are kept in a 90° angle from each other. By pressing and holding the **Ctrl button** the reference lines can be rotated independently.
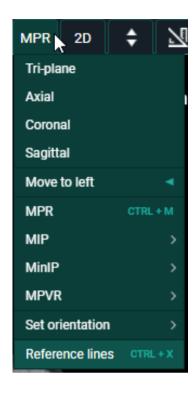
Each quadrant has an indication in the bottom left corner that indicates:

- the orientation of the volume with indicators R, L, A, P, H, F (cf description of the axes)
- the series the MPR images originate from
- the name of the view

To display a single view in the viewport, you must select the desired view from the MPR menu.

5.3.7.2 MIP - MINIP - MPVR

PACSonWEB also offers the following modes, related to MPR:

● MIP: Maximum Intensity Projection

Used to display the slices of the volume in a maximum intensity projection render mode.

In this mode, each pixel on the screen is the maximum density found along a line perpendicular to the selected plane within the selected plane thickness.

● MINIP: Minimum Intensity Projection

Used to display the image in a minimum intensity projection render mode.

In this mode, each pixel on the screen is the minimum density found along a line perpendicular to the selected plane within the selected plane thickness.

● MPVR: Multi-Projection Volume Reconstruction

Used to display the slices of the volume in an average intensity projection render mode.

In this mode, each pixel on the screen is the average density found along a line perpendicular to the selected plane within the selected plane thickness.

For all three modes the following plane thicknesses are available:
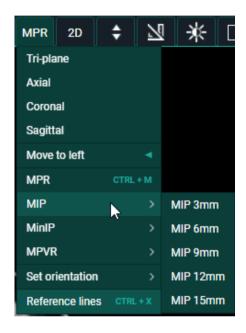
● 3 mm
● 6 mm

- 9 mm
- 12 mm
- 15 mm
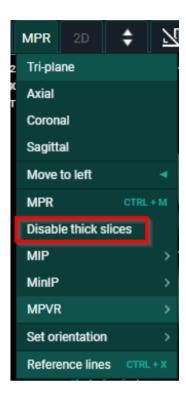
Such mode can be activated from the MPR menu and is automatically applied to the entire selected view (Tri-plane axial, sagittal, coronal).

If another view is selected, the selected mode is still applied. The mode remains highlighted in the MPR menu so it can be consulted if needed.

When activated MIP, MinIP and MPVR functionality can be turned off from the MPR menu in the toolbar by clicking "Disable thick slices".

5.3.7.3 User interactions

In the Tri-plane view, reference lines are displayed on the axial, sagittal and coronal view. When a reference line is rotated, the other views are adjusted accordingly.

Following user interactions are possible within a generated MPR series (and similar for MIP, MINIP, MPVR) :
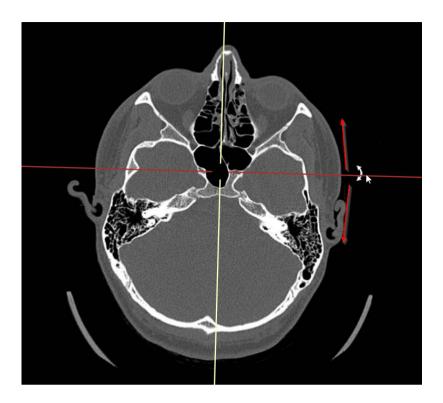
1. Single oblique rotation

By hovering over a reference line, the cursor will change into a rotating icon.

Hold down the left mouse button and drag the reference line to the desired location to create an oblique view.

By default the reference lines will stay in a 90° angle.
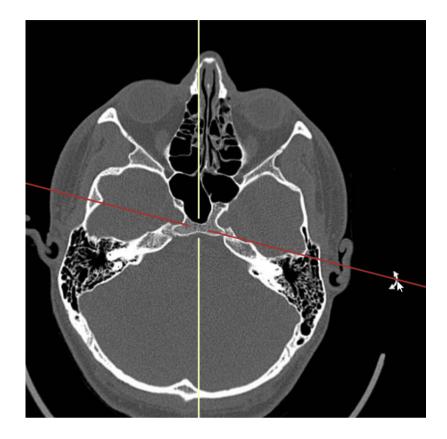
2. Double oblique rotations

In case, when rotating in the single oblique view, additionally the Ctrl-key is pressed, only the selected reference line will move further.

The reference lines will therefore no longer be perpendicular to each other resulting in a double oblique view.
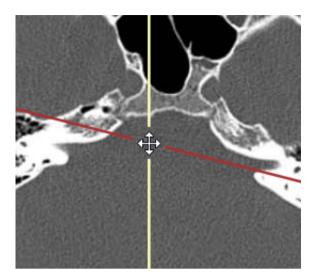
⚠️ **Warning:**

For usability reasons, rotations can only performed about one axis at the time.

After performing e.g. a rotation about the X-axis, you must release and hold the left mouse button to be able to perform a rotation about the Y-axis.

From the axial, sagittal or coronal view it is possible to change the displayed slice of the oblique view by selecting the intersection on the two reference lines, holding the left mouse button and moving the mouse.

This also allows to reposition the intersection to select another center point for rotating the reference lines.
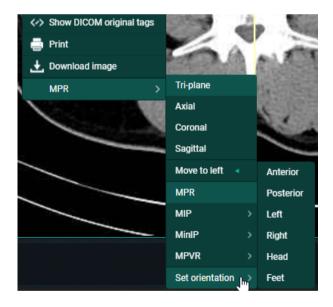
3. Set Orientation

You can set the orientation in any of the three views using the "Set Orientation" option from the MPR menu (accessible with right mouse click).

The possible options are: Left, Right, Anterior, Posterior, Head or Feet.

5.3.8 Open study in external app

You can open a study from PACSonWEB in another application with the appropriate context by clicking: ⊞ **Open study in external app**.

To make use of such links, please contact the PACSonWEB Service Desk.

5.4 Image screen

This is where the images (and the report) are displayed.
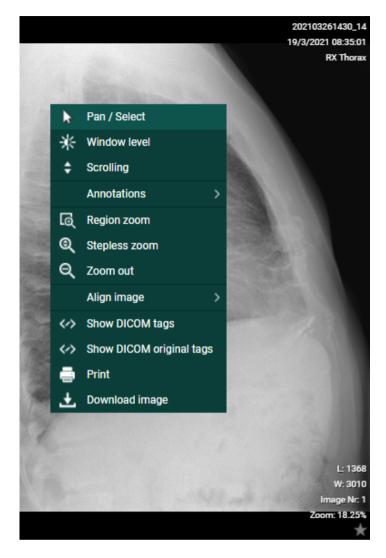
When a series contains multiple images, you can scroll through the images using the scroll wheel, the arrow keys or, after selecting scrolling in the menu, by holding the left mouse button and moving the mouse up and down.

In case you have activated the setting "Right click for function switch" in User settings (refer to page 83) > My account (refer to page 84) you can switch between the following functionalities with short clicks on the right mouse button:

- Window Level
- Scrolling
- Stepless zoom
- Pan

If you hold down the right mouse button for 1 second or longer, the extended context menu will be displayed.
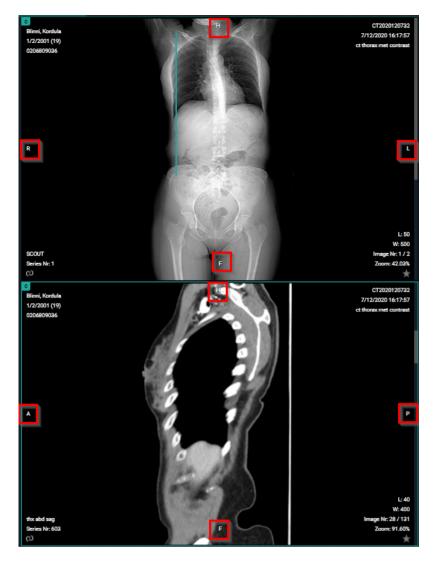
Orientational reference indicators

In the top toolbar, you can activate the Overlays from the Visible Elements menu which will display useful information on the patient, the study, the images and the orientational reference indicators on the images.

The following letters are used to indicate the referential orientation:

- H: Head
- F: Feet
- A: Anterior
- P: Posterior
- L: Left
- R: Right

Scale ruler:

The scale ruler is displayed at the bottom in every viewport, to indicate the scale of the width of the image.

⚠️ **Important!**

> If pixel spacing for rows and columns are different, the scale only applies to horizontal distances.
>
> Also when rotating the image, the scale still applies to the horizontal distances of the original image.

Default mouse actions:

The default mouse actions are listed below and depend on the modality type.

For both actions (left and middle mouse button), it means clicking the button, holding it and moving the mouse around.

Mouse button	Modalities	Action
Left mouse button	CT/MR/PT	Scrolling
Left mouse button	Other	Pan
Middle mouse button	Other	Scrolling

📝 **Note:**

"Other" means every modality that is not specified as an action.

💡 **Tip:**

The mouse actions can be changed for every modality type to personal preferences (See Preferences (refer to page 87)).

Image editing tools:

Using the image editing tools (see Toolbar (refer to page 209)) you can zoom in on/ zoom out of the image, rotate the image, perform measurements, change contrast, etc.

You can also right-click the mouse for a menu with the most-often used commands:

- **Pan/Select**: Use Pan to drag a zoomed-in image (See Image functions (refer to page 212))

- **Window level**: Use Window Level to modify the brightness and contrast of the selected image (See Other image editing tools (refer to page 222))

- **Scrolling**: Use to scroll through the images

- **Annotations**: Tools to make annotations on the selected image (See Annotations (refer to page 215))
  - **Ruler**
  - **Line**
  - **Circle**
  - **Line**
  - **Angle**
  - **Cobb angle**
  - **Center edge angle**
  - **Vertical height**
  - **ROI-rectangle**
  - **ROI-ellipse**
  - **ROI-polygon**
  - **Arrow**
  - **Length loss**
  - **Length ratio**
  - **Text**
  - **Spine labels**

- **Region zoom**,**Stepless zoom**,**Zoom out**: Tools for zooming on the selected image (See Image functions (refer to page 212))

- **Align image**
  - **Align left**
  - **Align top**
  - **Align right**

- ○ **Align bottom**
- ○ **Align center**
- **Show DICOM tags**: Display the DICOM tags of the selected image
- **Show DICOM original tags**: Display the original DICOM tags of the selected image (only available to administrators of the study)
- **Print**: Print the selected image
- **Download image**: Download the selected image in PNG format

You can view an image in full-screen mode by double-clicking on the image. Double-clicking the image again will take it back to its original size.

💡 **Tip:**

Within the study page, the following shortcuts can be used:

CTRL + left mouse button clicked + dragging image to another view port: duplication of image in second view port

SHIFT + left mouse button clicked + dragging image to another view port: switching images between view ports

SHIFT + scroll forward: zoom in

SHIFT + scroll backward: zoom out

CTRL + scroll: tiling within the selected view port

Left mouse button clicked + scroll: fast select between the following functionalities:

- ○ Window Level
- ○ Stepless Zoom
- ○ Pan

ESCAPE button: restore the default action

ONLY for series containing multiple images:

Hold down the mouse wheel + move the mouse up and down: scroll through the series.

Attention: the speed for scrolling is adaptive. Depending on the velocity used when moving the mouse back and forth, the scrolling will be faster or slower (non linear).

The same remark holds when scrolling through a series on a mobile device (tablet or smartphone).

Anomaly:

In case an anomaly was registered for an exam with respect to the exam on the local PACS system a notification is displayed on top of the page.

When hoovering over the notification, a label with a more detailed explanation on the anomaly is displayed.

If you are logged on as a user with administrative rights on the study, it is possible to click the label to navigate directly to the section "Anomalies" of the administration page (Anomalies (refer to page 249)).

Image retention:

When placing the cursor over the clock icon, a pop-up is shown, displaying the retention time for the different series.

Linking series:

In case two viewports display image series with the same table position, the series are linked automatically.
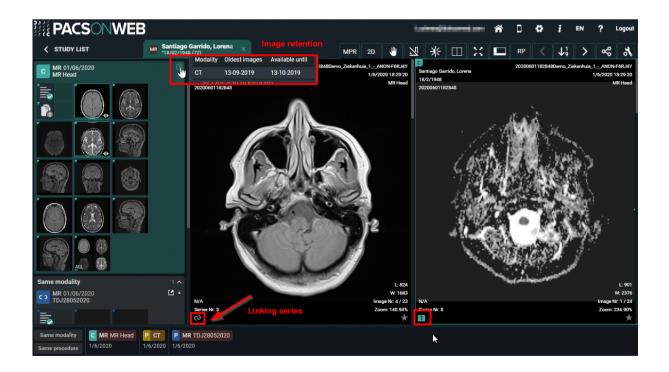
In case two series are linked, it can be seen as the shackle icons of both series on the bottom left and scrolling through both series occurs simultaneously.

You can unlink the series by clicking the shackle icons to scroll through the series separately.

⚠️ **Important!**

Automatic or manual linking of series is not possible in case one of the series is an MPR.

Volume registration:

Volume registration is the automatic anatomical linking between **2 studies.**

Prerequisites:

- Registration is only possible between 2 studies
- Only for CT/MR/SPECT/PET
- Both volumes should be available in the cloud
- Minimum number of 10 slices
- Maximum spacing between slices of 10mm
- All slices need to have the same orientation

Workflow:

Click on registration icon (wand icon as displayed in the screenshot) of serie A and serie B.

The icon is only visible if the series is a volumetric series which meets the requirements.

Once the both icons are clicked, POW will start with the Volume Registration. Following toast message is shown to indicate that POW is busy with the registration: "Creating volume registration..."

When the registration is finished: "The volume registration is ready."

Once the registration is finished, all the series affected by the registration will now have a grey R icon.

Clicking the R icon will **remove** the registration.

Adjusting the linking

When the registration is not perfectly correct, the user can easily adjust the registration to the correct slice of the series.

Press and hold the ALT key to scroll in the series that needs to be adjusted. Scroll to the correct location and release the ALT key.

After releasing the ALT key the series will scroll in sync again.

 Important!

> The Volume Registration will not be 100% correct in every scenario. It is still the users' responsibility to verify the outcome of the tool and make corrections if needed.

Key image:

Administrators of a study on PACSonWEB have the possibility to create a new series with 'key images'.

You can add an image to this series, by make it visible in the viewer and clicking the star icon in the bottom right corner of the image which will make it turn yellow.

When reloading or reopening the study, the newly created series on key images will be available in the series picker for everyone who has access to the study.

You can remove images that have been marked as key images from the series by de-selecting the star icon. Images on which publicly available annotations have been made, are automatically marked as key image.

You can open an image from the key image series in the original series by clicking at the bottom of the image.

Changed images in study view:

When a study has been opened and in the background a modification has occurred (new images added / images removed), the user is notified by

- a toast message, displayed at the bottom right of the screen
- an indication in the series picker

Both provide the possibility to reload the study to display the up-to-date situation.

The toast message: "Images changed for this study. Please reload study. **RELOAD STUDY**"

The indication in the series picker:

5.4.1 CAD markers

PACSonWEB supports displaying CAD annotations of two different manufacturers in the PACSonWEB viewer: iCAD and ScreenPoint Medical.

In case a study contains an CAD structured report, it is possible to display the CAD markers in the image screen.

The user has to have the permissions to edit the report in order to have access to the CAD markers.
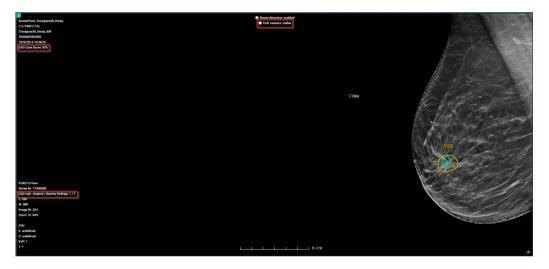
The study opens by default with the markers hidden. They can be made visible by clicking the CAD markers description, displayed in the top center of the image.

In the image overlay the number of iCAD findings is displayed.

The CAD Case score, number of densities and calcifications is displayed in the overlay.
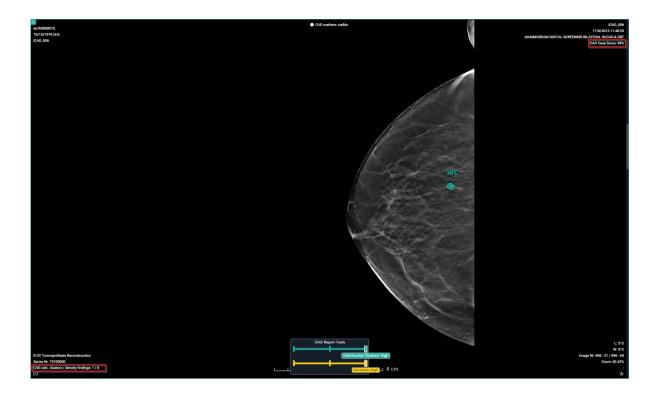
iCAD report tools

When iCAD annotations are being shown, the report tools are also displayed.

These report tools allow you to individually toggle the visibility of the density findings or the calcification cluster findings.

5.5 Report display

💡 **Tip:**

When logged as a patient, the report will only be accessible if permitted by the radiology department.

When logged on with a PACSonWEB account, the report will always be accessible as soon as it is available.
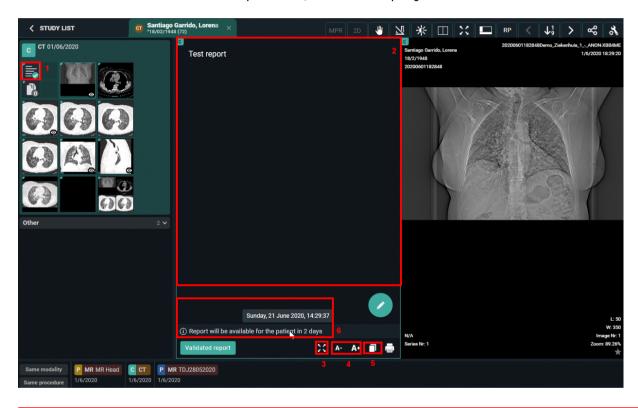
⚠️ **Warning:**

A radiology department can opt to apply a delay of x days before the report is made accessible to the patient.

As long as this delay hasn't expired, a message will be displayed to notify that the report is not available to the patient.

When logged on with a doctor's account it is displayed at the bottom of the report when the report will become available to the patient (round up).

By hoovering over the number in the message, the exact time when the report will become available to the patient, will be displayed.

(1) When opening a study for which the report is available, the report icon will be displayed as the first series within the series picker

(2) When opening a study for which the report is available, the report will be displayed by default within the first view port

(3) display the report full screen

(4) decreasing or increasing the font size of the report

(5) copy the report to the clipboard

(6) Details on moment when the report will be available to the patient (optional)

📝 **Note:**

> If the report was sent in PDF format, you can zoom in, print, download … by using the buttons in the top toolbar.

If you are an administrator of a study, you can create or modify the report by clicking the pencil icon.

This is not possible in case the report was sent in PDF format.

Once the report has been completed, it should be verified and saved from the browser window.

A report can be saved as:

- Draft
- Preliminary
- Validated

In case a draft report exists and the reported is edited and cleared, it will be marked as without report.

In case a report has been saved as preliminary or validated, it is not possible to revert to status draft or without report.

Depending on the advanced configuration for your radiology department, it can be that:

- It is not possible to save a report as preliminary.
- It is not possible to save a report as validated.
- It is not possible to modify a report that has been marked validated.

For further questions, please contact your internal PACSonWEB admin or Dobco Medical Systems.
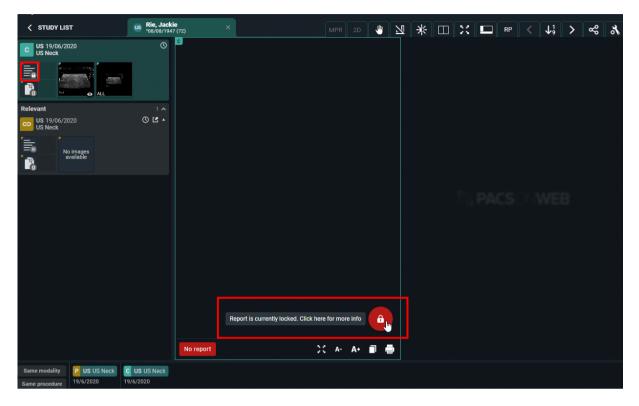
⛔ **Important!**

> A draft report will only be visible for users that can edit reports; not for users that have read-only access to the exam.

Once a report has been set to edit mode, it will be locked for any concurrent users to prevent two persons working on the same report at the same time.

This is indicated by a lock icon in the series picker and the report window.
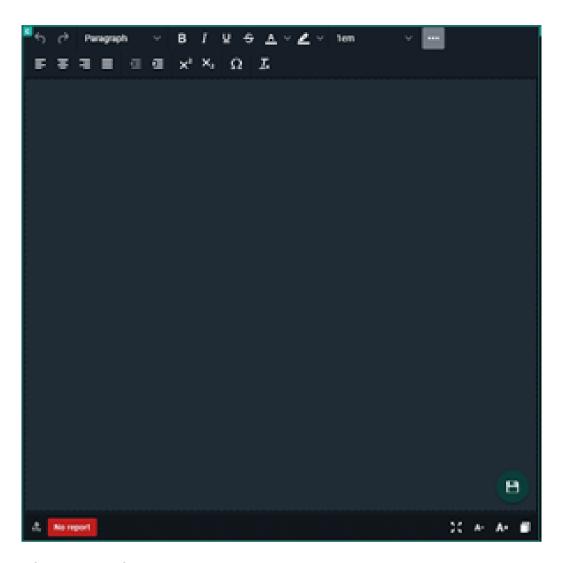
By clicking the lock icon, more information is given on who is editing the report at the time.

5.5.1 Rich reporting

If a user has the setting RichReportingEnabled enabled, a rich reporting editor becomes available.

Rich text editor tools

A toolbox is available where the following markups and actions can be added to the report:
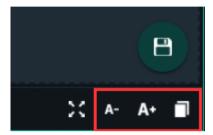
- Basic
  - Bold/ Italic/ Underline
  - Strikethrough
  - Text - and background color
  - Font size
  - Sub script and super script
- Header styles
- Text alignment
- Indention

- Insert symbol
- Clear formatting
- Undo/redo

At the bottom of the page the following functions are available:

- Decrease font size
- Increase font size
- Copy to clipboard

The copy to clipboard functionality copies the text with markup.
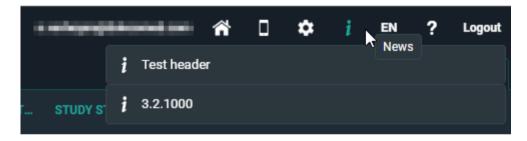
Notifications within PACSonWEB

<div style="text-align: right; font-size: large;">6</div>

General notification with respect to PACSonWEB are accessible through the information-icon, available non the top right on every page.

In case you have unread messages, this icon will highlight and it will mention how many messages are available.

By hovering the mouse pointer over the icon, the messages will be displayed in a pop-up.

When you click a message a seperate page will be displayed with all available messages.

Once the messages have been displayed, the icon will still be available but will no longer be highlighted ⓘ .

Home Reading

⚠️ **Important!**

The app can be used to dictate reports within PACSonWEB but is not a medical device in itself and therefore has no CE marking.

This is an optional feature within PACSonWEB. Please contact Dobco Medical Systems for more information.

📝 **Note:**

- The Authenticator app has been merged with the Home Reading app.
- The Home Reading app is still available separately.

Download the Home Reading app

If your device does not meet the technical requirements, it will not be possible to install the app.

iOS

In the Apple Store, look for "PACSonWEB" and click "Install".

Requirement: iOS 10 or higher

Android

In the Google Play Store, look for "PACSonWEB HomeReading" and click "Install".

Requirement: Android 4.4 - 8.0 (x86, x64, ARM, ARMv7-A, ARM64v8-A,)

PACSonWEB Home Reading provides a radiologist with a simple way of producing a (preliminary) study report outside the walls of a hospital.
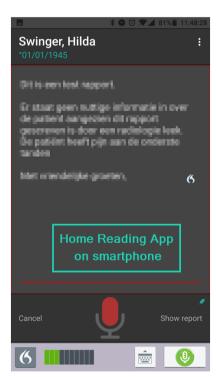
The physician can link his own smartphone to his PACSonWEB session and dictate a report through the Home Reading app with integrated speech recognition, while examining the images on a computer or tablet.

The dictated text on the Home Reading app is synchronized in real time with the report on the study page in the browser session.
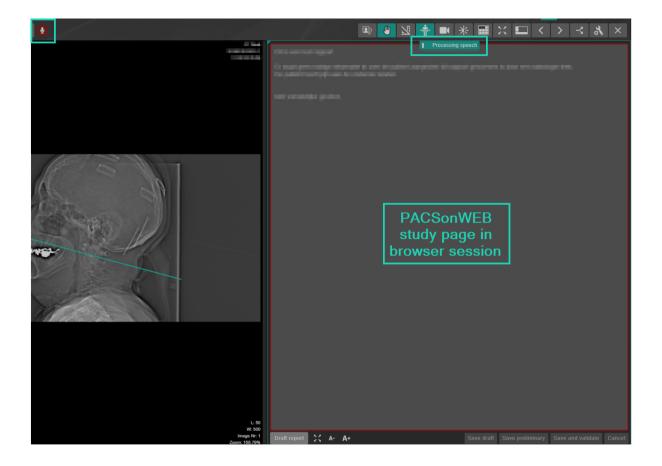
After verification, the physician can save the report as draft, preliminary or validated report from within the browser.

In case the RIS from the hospital supports incoming ORU, a message can be sent from PACSonWEB to update the internal information systems.

Depending on the desired setup the message will be sent, depending on the related status: draft, preliminary, validated.

7.1 Pairing the Home Reading App
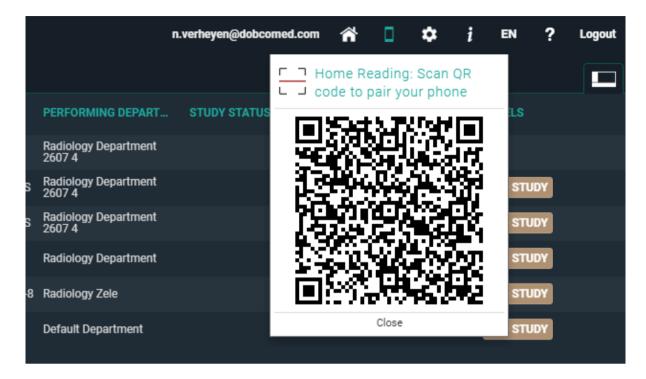
In order to create a report through Home Reading, a link needs to be established between the PACSonWEB browser session on the computer or tablet and the Home Reading app on the user smartphone.

In order to establish such a link (or pair), log on to PACSonWEB on your computer or tablet with your account.

In case Home Reading has been enabled for your PACSonWEB account, the home reading icon [icon] will be available from the top toolbar.
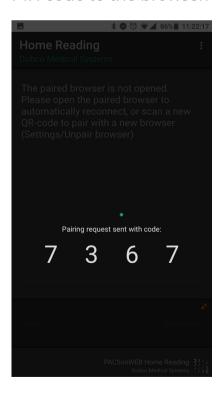
By clicking the Home Reading icon, a QR code will be displayed to pair your smart phone.

From your smart phone, start the Home Reading app, tap "Read QR code".
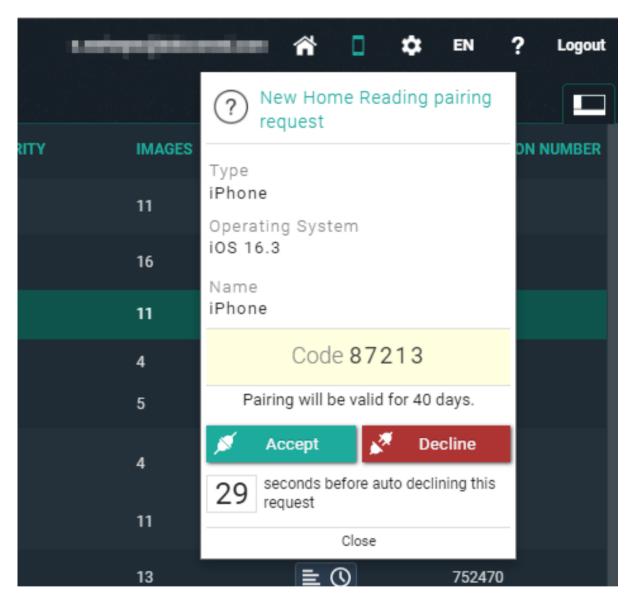
When the QR code is scanned, the app will send a paring request, with an arbitrary PIN code to the browser.
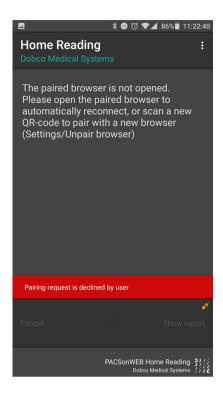
Within the browser session, a notification is displayed on the pairing request, specifying the device that is used (Type, OS and device name) and the PIN code, sent from the pairing request.

If the PIN corresponds to the PIN from your smart phone, click "Accept" within 30 seconds.
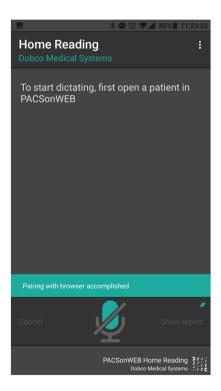
In case the pairing was declined or was not accepted in time, the following message appears on the smartphone:
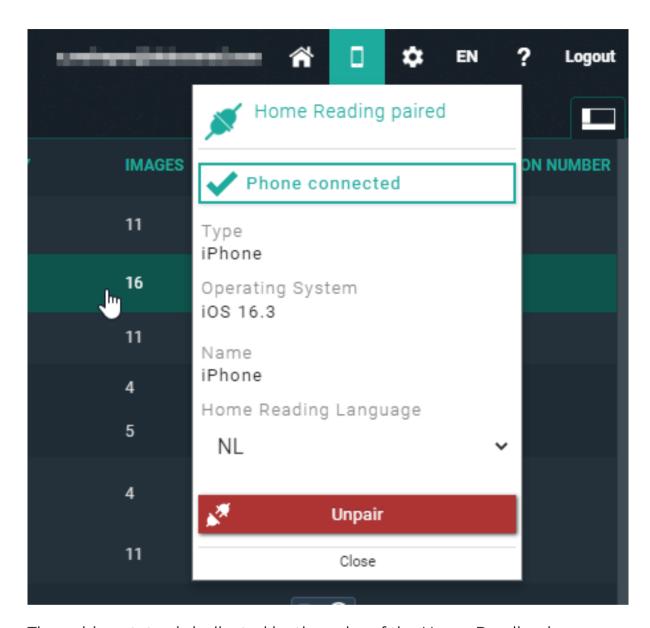
In case the pairing was successful, the following message is displayed within the app and the browser:

The pairing status is indicated by the color of the Home Reading icon.

- White / black: the browser is not paired to a smartphone
- Orange: the browser has been paired with a smartphone but the phone is not available
- Green: the browser is paired with a smartphone and can be used for dictation

📝 **Note:**

By default the pairing remains valid for 40 days. After this period the pairing needs to be set up again.

7.2 Creating a report through Home Reading

Once a smartphone was paired successfully, the app displays the following notification on the screen:

"To start dictating, first open a patient in PACSonWEB"
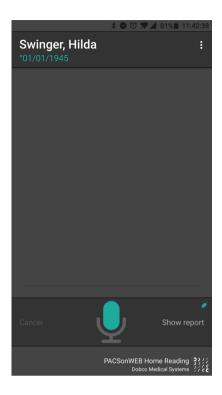
Navigate within the browser session on the computer or tablet to the study of interest.

For verification purposes, the patient name and date of birth are displayed on the smartphone.

In this example, an exam from patient Swinger, Hilda has been opened on the linked browser session.
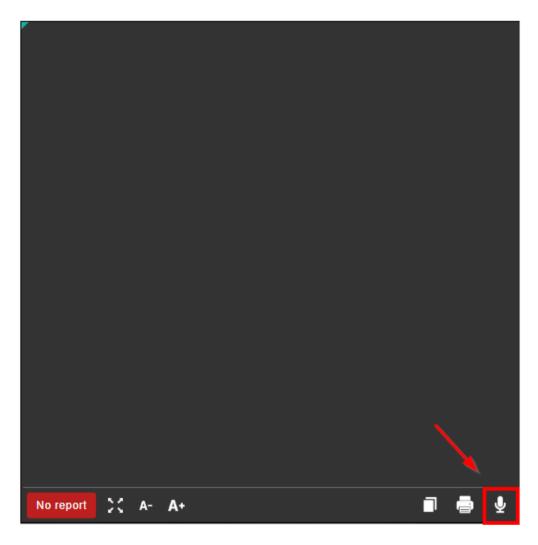
Tap the microphone icon on the Home Reading app or in the browser to start creating a report through voice recognition.

💡 Tip:

If the report is not yet displayed in the browser, click on 'Show report' in the app or open the report in the browser from the series picker.

The microphone icon will turn red once voice recognition has been activated.

 ->

The dictated text will appear on both the Home Reading app and the browser window.

⚠️ **Important!**

In case the microphone does not detect any speech for 20 seconds, speech recognition is deactivated.

If this occurs, the user is notified through a system sound.
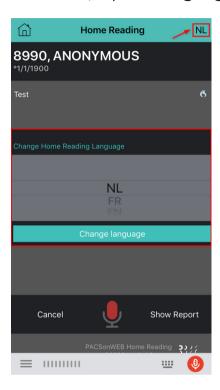
💡 **Tip:**

If you are using the combined Home Reading and Authenticator app, you have the possibility to change the language during dictation.

To do this, tap the language in the top right corner of the app:
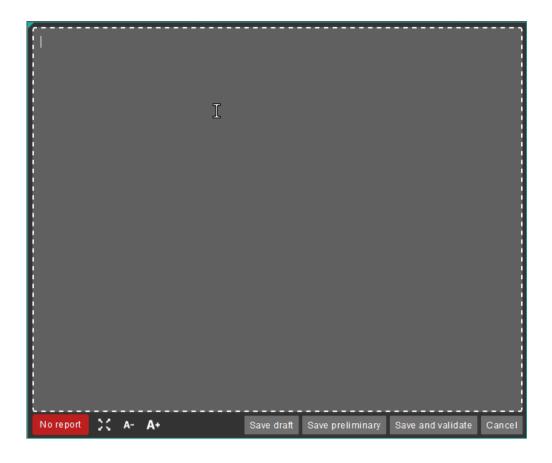
Once the report has been completed, it should be verified and saved from the browser window.

A report can be saved as:

- Draft
- Preliminary
- Validated

⚠️ **Important!**

In case a draft report exists and the reported is edited and cleared, it will be marked as without report.

In case a report has been saved as preliminary or validated, it is not possible to revert to status draft or without report.

Depending on the advanced configuration for your radiology department, it can be that:

- It is not possible to save a report as preliminary.
- It is not possible to save a report as validated.
- It is not possible to modify a report that has been marked validated.

For further questions, please contact your internal PACSonWEB admin or Dobco Medical Systems.

A draft report will only be visible for users that can edit reports; not for users that have read-only access to the exam.

> ⚠️ **Important!**
>
> **Disclaimer**
>
> The recognized text is not always 100% correct.
>
> It is the responsibility of the radiologist to verify the correctness of the report before validation.

Once a report has been set to edit mode, it will be locked for any concurrent users to prevent two persons working on the same report at the same time.

This is indicated by a lock icon in the series picker and the report window.
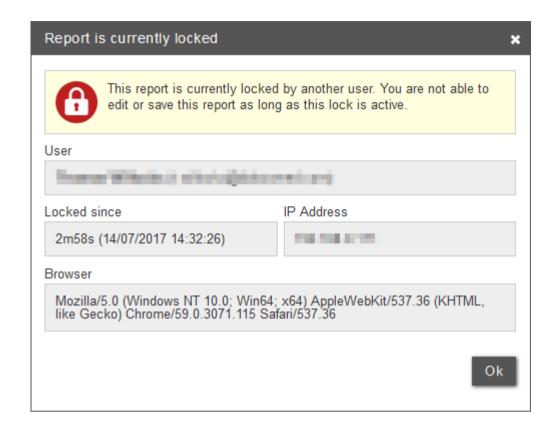
By clicking the lock icon, more information is given on who is editing the report at the time.

7.3 Unpairing the Home Reading app

It is necessary to unpair your device from your browser session in case you want to:

● stop creating reports

● pair another device with your current browser

● pair your current device with another browser

This can be done

● from within the app by clicking the three dots in the top right corner and tapping **Unpair browser**
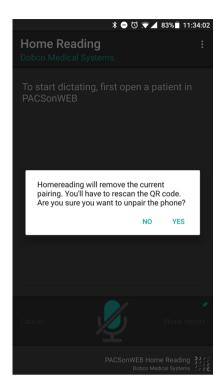
- from within the browser by clicking the Home Reading icon and clicking Unpair

A notification will be displayed on your Home Reading app. Tap **YES** to confirm that you want to unpair your device.

PACSonWEB worklist

<div style="text-align: right;">8</div>

PACSonWEB offers the possibility to use worklists for optimal workflow support when dictating reports.

Users who have the required access rights, can access the work list screen by clicking the "Worklist" tab next to the study list.

8.1 Worklist configuration

1. Predefined worklists

For every source there are 4 predefined worklists:

- All for source: this worklist contains all studies for the source
- All my reviews: this worklist contains all studies on status 'Pending second validation' where the Validating user is the current logged in user
- All my unread: this worklist contains all unread studies for which the logged in user is marked as "Reading user"
- All unread: this worklist contains all unread studies for this source

These worklists cannot be deleted or changed. Changes can be made but have to be saved as a new worklist.

It is possible to create worklists on user level or on group level.

Select one of the predefined worklists and add extra filters to create the desired worklist.

For example, to create a worklist which contains only **unread** studies of the modality CT and MR, perform the following steps:

- Select the worklist "All unread" from the drop down menu on the top left
- In the filter list, select the modalities CT and MR
- Save the newly created worklist by clicking on the [+] icon on the bottom left
- Give a name and description for the worklist
- Save it for yourself (user) or group
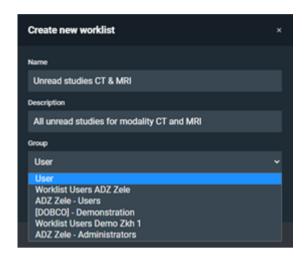
⚠️ **Warning:**

> To save the worklist for a group, the user has to be admin of the group.

2. Use of columns and filters

Fill in the required fields or select the required values from the multiselect boxes.

Study date can be used as a relative date/period.

This means, for example, when selecting "last 7 days", this will be automatically updated the next day.

By default, the orders in the worklist are sorted first on priority and second on study date (oldest to newest). It is possible to use sorting filters by clicking on the description of the column.

To use more than one sorting hold the **SHIFT** key. The numbers will show the sorting ranking.
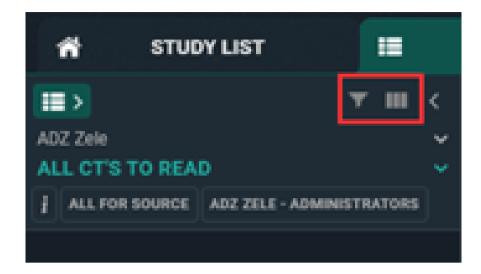
3. Customization of columns and filters

The predefined worklists have a default set of columns and filters.

These can be changed according to personal preferences. Click on the icon as shown in the screenshot to open the settings for filters/columns.
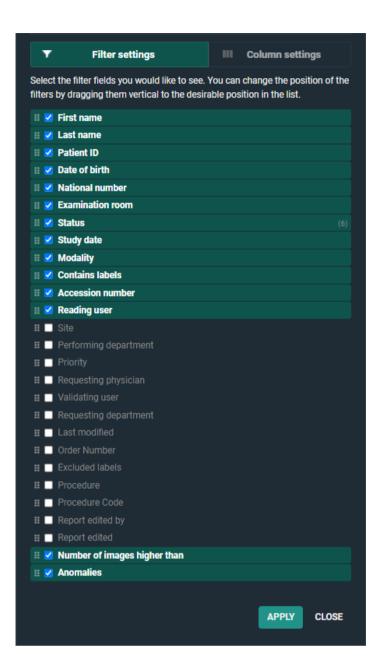
First icon is for filter settings, the second for columns settings.
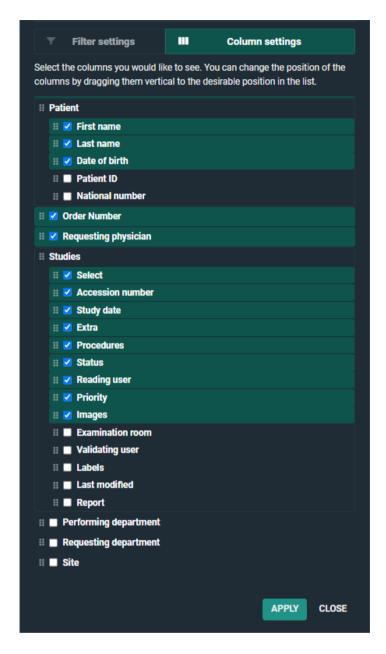
Check or uncheck the filters/columns you wish to display/remove from the filter or column list. Click and drag them to another place to change the order of display.

Click on "Apply" when finished.

Filter settings   ## Column settings

Select the filter fields you would like to see. You can change the position of the filters by dragging them vertical to the desirable position in the list.

- ☑ First name
- ☑ Last name
- ☑ Patient ID
- ☑ Date of birth
- ☑ National number
- ☑ Examination room
- ☑ Status   (6)
- ☑ Study date
- ☑ Modality
- ☑ Contains labels
- ☑ Accession number
- ☑ Reading user
- ☐ Site
- ☐ Performing department
- ☐ Priority
- ☐ Requesting physician
- ☐ Validating user
- ☐ Requesting department
- ☐ Last modified
- ☐ Order Number
- ☐ Excluded labels
- ☐ Procedure
- ☐ Procedure Code
- ☐ Report edited by
- ☐ Report edited
- ☑ Number of images higher than
- ☑ Anomalies

APPLY   CLOSE

Filter settings Column settings

![Dedalus logo]

💡 **Tip:**

The icon, displayed in the Report column, differs according to the report status:

- ☰ ··· Draft report

- ☰ 🕐 Preliminary report

- ☰ ✓ Validated report

- ☰ 💾 Auto saved report

The "Extra" column can contain icons for the following statuses:

- ⚠️ Anomalies

- 💬 Messages (confirmed/unconfirmed)

- ▽ Filtered study

- ✖ Canceled study

- 🔒 Locked

- 📌 Reserved

📝 **Note:**

A worklist can also be configured based on the filter "Anomalies". However, the Anomalies filter is only accessible for source admins.

⛔ **Important!**
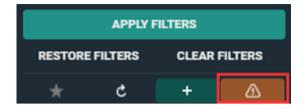
The filter "Procedure Code" is not supported in Internet Explorer.

After applying the changes, you will see the orange triangle at the bottom of the page.

This is to indicate that changes have been made to the default of the worklist.
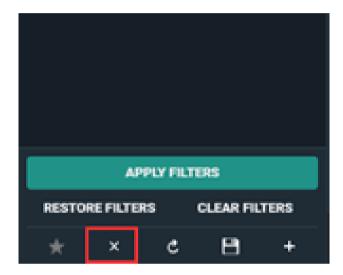
If you want to keep these changes you will have to save them as a new worklist by clicking the + icon.

4. Deleting a worklist

To delete a worklist, click on the cross icon as shown below.
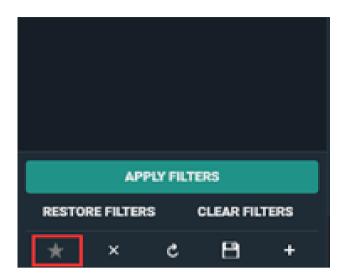
⚠️ **Caution:**

Deleting a worklist cannot be undone.

5. Default worklist

To make a worklist your default worklist click on the star icon as displayed below. When opening POW, the worklist marked as default will be opened.

6. Dashboard

The Dashboard contains shortcuts of your personal selection of worklists. The purpose of these shortcuts is to have an overview of the counts in the worklist without the need to open the worklist.
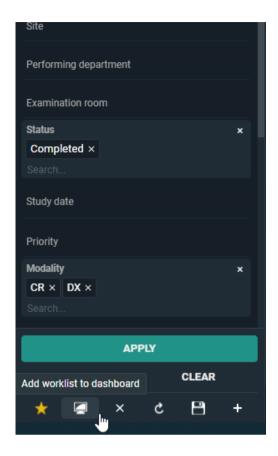
The count refreshes automatically.

6.1 Adding a worklist to your dashboard

Select the worklist you want to add to your dashboard.

Click on the dashboard icon.
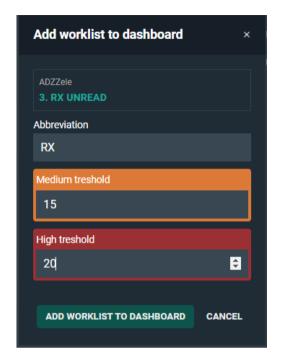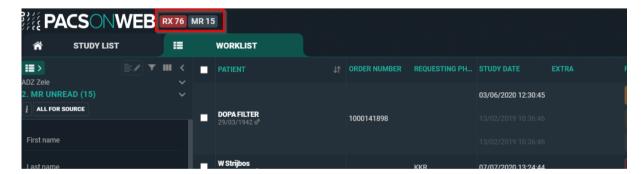
In the following window, give an abbreviation for the shortcut (limited to 3 characters).

The threshold numbers will determine in which color the shortcut icon will be shown: grey, orange or red.

The shortcut icon will be displayed in the dashboard next to the PACSonWEB logo.
Clicking on this icon will open the worklist.
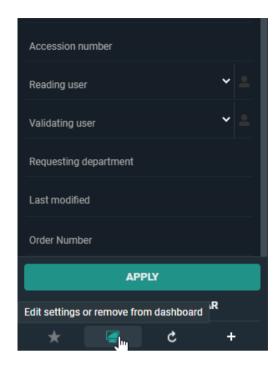
6.2 Editing/removing a shortcut from the dashboard
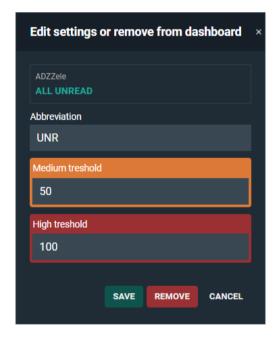
You can edit or remove a worklist from your dashboard by opening the related worklist, either by selecting it from your list of worklists or by clicking the related icon in the dashboard.

Click the dashboard icon to open the configuration window.

Here you can either edit your settings and save or remove the shortcut from the dashboard.

7. Overview Worklists

You can see an overview of all worklists available to you by clicking the "My Worklists" icon at the top left.
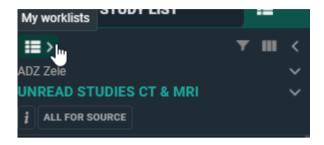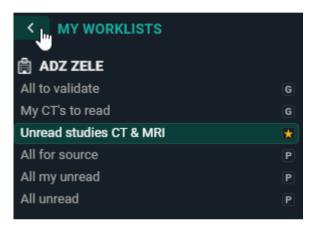
Predefined worklists are indicated with a 'P'.

Lists that you see because they are available to a group you belong to are marked with a 'G'.

The default worklist will be indicated in the dropdown with a yellow star icon.

8.2 Worklist page functions
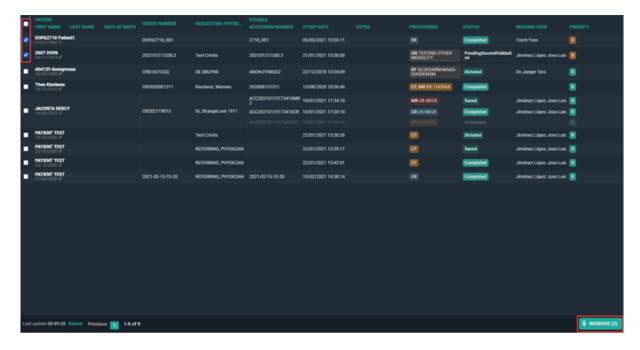
1. Study reservation

When multiple radiologists are working within the same worklist, it is useful to reserve studies before reporting them to make it clear to all radiologists who is going to make the report for which study.

Study reservations can be made by selecting one or more studies with the select box and clicking the "Reserve" button in the right bottom corner.

By default the reservation period is set to 90 minutes, unless a different value has been registered for the related source. After that the reservation expires.
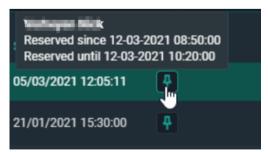
If a study has been reserved, this will be indicated with a pin icon in the **Extra** column.

When hovering over the pin icon you can see the details on the reservation.

Another user who is working in the same worklist will see the same icon in a red color to indicate that the study is reserved.

If a user wants to reserve a study which is already reserved by another user, he/she is prompted with the following warning:

Attention One or more studies is reserved by another user, do you wish to take over the reservation? `YES` , **CLOSE**

2. Unreserve study

To unreserve a study the same steps have to be followed. Select the reserved studies with the checkbox which you want to unreserve.
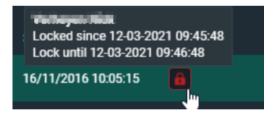
Click on **clear reservations** in the right bottom corner.

3. Study locking

When a radiologist starts making a report this is indicated for other users with a lock icon in the **Extra** column.

When hovering over the study lock icon, it is indicated who is dictating the report. The report is locked as long as it is in edit mode. The lock until time is updated every minute.

The user can open the study to look at the images but it will not be possible put the report in edit mode.

Once the report has been saved or cancelled, other users will be able to edit the report again.

4. Change study priority
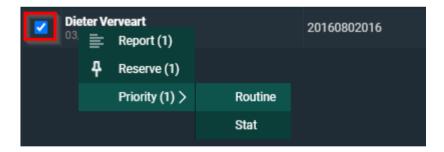
The study priority can be changed in the worklist overview.

Select the study by ticking the checkbox, right mouse click on the study gives you 3 options. One of them is changing the priority to Stat or Routine.

📝 **Note:**

This functionality requires a permission that needs to be active for the user.

5. Labels
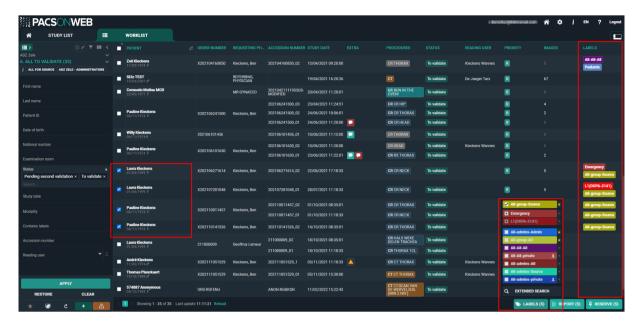
From the Worklist page you have the possibility to link labels to studies in a similar way as can be done from the Overview page.

The full explanation on how to manage labels can be found here: Labels (refer to page 185).

The linked labels are displayed in the column "Labels" if this column has been made visible for your overview.

If not, how to make it visible, is explained here: Worklist configuration (refer to page 303).
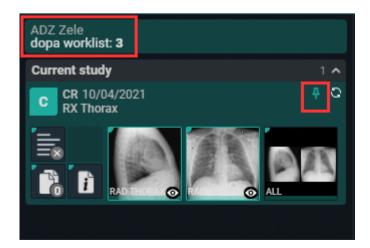
8.3 Reading workflow

1. Opening study from worklist

When a study is opened from a worklist, it is indicated to which source the study belongs.

The name of the worklist is also displayed, followed by the number of studies in that list.

If the study is reserved, this will also be indicated with the pin icon.
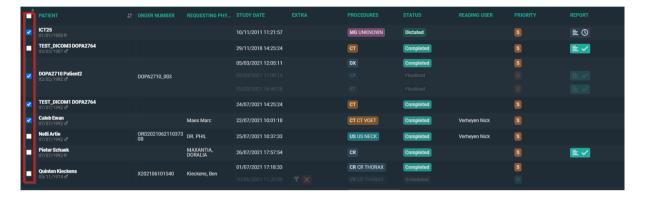
2. Opening studies from selection

The selection boxes for selecting studies can be shown on order or study level.

This is managed by a setting, linked to the source of the study.

Selection on Order level

Selection on Study level

A specific study can also be selected by clicking on the procedure description label.
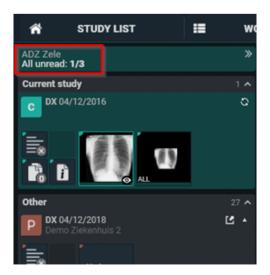
This can be useful for an order with multiple studies where the user wants to open a specific study.

3. Bulk reporting

Select the studies you want to create a report for by enabling the checkboxes as shown in the examples above.

Click on the REPORT button in the bottom right or right mouse click to start reporting the selected studies.

The total number of selected studies is shown in the series picker:
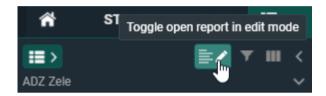
When the last study of the selection is reported, the user is redirected back to the worklist page.

4. Creating a report and study status update

When opening a study, the user has the possibility to have the report automatically in edit mode or having to activate edit mode manually.

4.1 Automatically

Highlight the option shown below.

⊘ **Important!**
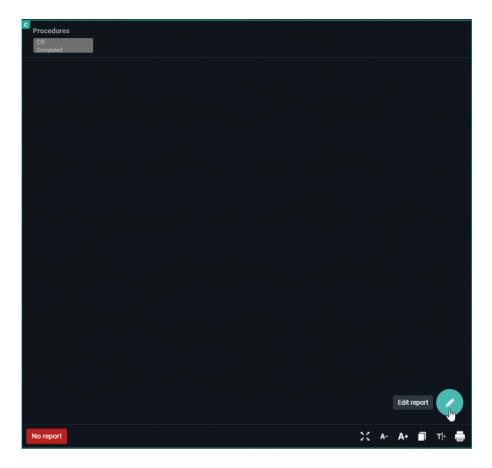
This option needs to be enabled **and saved for the worklist**.

4.2 Manually

Click on the pencil icon or shortcut F2 to directly activate the speechmike in record mode.

The user can now start making the report.

Text blocks can help to speed up the workflow. These are preconfigured blocks of text that can be inserted and modified afterwards.

See Text blocks (refer to page 105) for more information on how to create and insert text blocks.

Auto saved reports:

Every 30 seconds an automatic auto save of the report is made. This means that when the connection is lost for some reason, there will be an auto saved version of the report.

If there is an auto saved report for a study, this will be shown in the worklist.

The icon is only visible for the user who created the auto saved version of the report. Other users will not see the icon in their worklist.

This functionality can lead to 2 scenarios:

1. Opening a study with an auto saved report which the logged in user created.

2. Opening a study with an auto saved report which the logged in did not create.

Scenario 1:

If the user opens an auto saved report, the following warning is shown:

"PACSonWEB has recovered a previous version of the report that you created on [dd/mm/yyyy] 00:00. Do you wish to restore this auto-saved report version?"

RESTORE AUTO-SAVE: opens the last auto saved version.
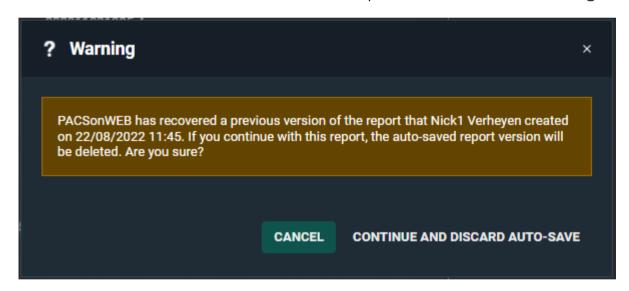
START FROM PREVIOUS SAVED VERSION: in case there was already a saved report (preliminary/draft), this version will be used.

Scenario 2:

If the user opens a study where there is an auto saved report created by another user, the following warning is shown:

"PACSonWEB has recovered a previous version of the report that [User] created on [dd/mm/yyyy] 00:00. If you wish to continue with this report, the auto-saved report version will be deleted. Are you sure?"

Note that the username who created the report is shown in the warning.

CANCEL: the report is cancelled.

CONTINUE AND DISCARD AUTO-SAVE: the auto-save will be deleted and new report is started.
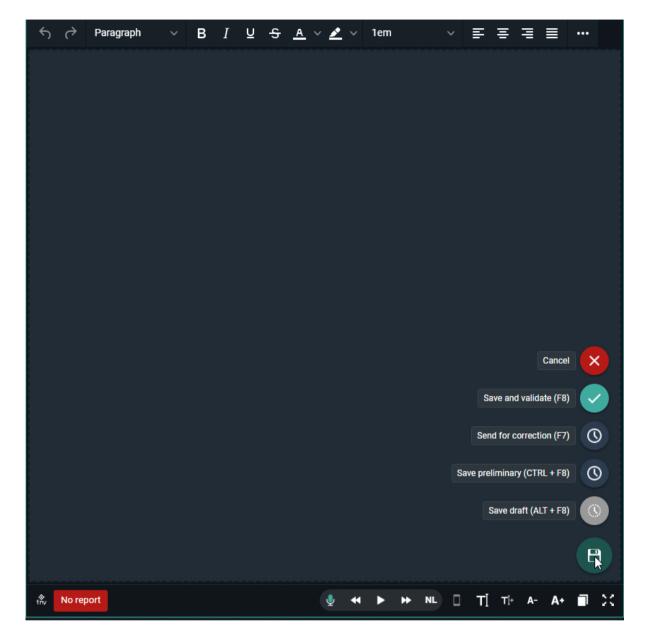
Saving the report

When the user has finished creating the report, the following actions are available:

- Save and validate (Shortkey: F8)
- Send for correction (Shortkey: F7)
- Save as "Preliminary" (Shortkeys: CTRL + F8)
- Save as "Draft" (Shortkeys: ALT + F8)

- Cancel

The study status is updated in line with the chosen action:

- Save and validate: status **Finalized**
- Send for correction: status **Pending report correction**
- Save as "Preliminary": status **To Validate**
- Save as "Draft": status **Dictated**
- Cancel: no change in status

In the worklist the status is displayed in the column Status.

Depending on user preference one of the following actions will occur after saving a report:

- Return to worklist
- Move to next study (studies that are reserved or locked are skipped)
- Stay in current study

This can be defined for each user, in the user settings under tab preferences (See Preferences (refer to page 87))

📝 **Note:**

This icon is only visible when opening the study from the worklist.

5. Workflow icon
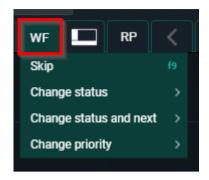
The Workflow menu is accessible from the top toolbar in the viewer through the icon "WF".

When **not** in report editing mode, you have the possibility to:

- Skip study (shortkey F9)
- Change the status of the study
- Change the status of the study and go to the next study
- Change the priority of the study (permission required)
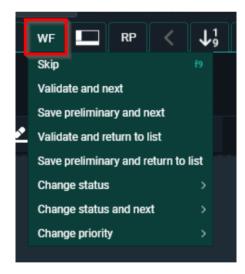
The status change will be visible in the Status column of the worklist.

When **in** report editing mode, the following options are available:

- Skip study (shortkey F9)
- Validate the report and move to the next study
- Save the report as preliminary and move to the next study
- Validate the report and return to the worklist
- Save the report as preliminary and return to the worklist
- Change the status of the study
- Change the status of the study and go to the next study
- Change the priority of the study (permission required)

📝 **Note:**

This icon is only visible when opening the study from the worklist.
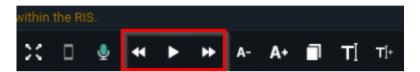
8.3.1 RSDK based speech recognition

📝 **Note:**

The RSDK based speech recognition is a paid feature and can only be activated by your local PACSonWEB service partner.

If this feature is activated for your user, the following buttons will be available when editing a report:

Voice input indication:

A colored bar is displayed under the microphone icon, indicating if the user is speaking too loud, too silent or at a suitable level.

Color indication:

- Blue = Too low
- Green = Perfect
- Yellow = Acceptable
- Orange = High
- Red = Too high

Optimal voice input

Voice input too high

When the voice input is reaching the color orange, the user will receive a toast message that says to lower the volume for better recognition.

"Your inout volume is too high. Please lower your volume to have better recognition.

It's advisable to adjust the input level on your device."

See the topics below on how to change this volume input.

Play features:

The spoken text can be played with the buttons in the report editor or their corresponding shortcut.

Button	Shortcut	Action	Functionality
▶/◼	ALT+F1	Click	Play / Stop
◀◀	ALT+F11	Click	Return 1 word
		Click and hold	Rewind a rato of 10 words / second
▶▶	ALT+F12	Click	Skip 1 word
		Click and hold	Fast forward a rato of 10 words / second

💡 **Tip:**

> If you are using a multimedia keyboard, you can also use the corresponding play buttons on your keyboard.

The play features can also be controlled, using a foot pedal.

In this case, the following key combinations need to be configured:

Functionality	Shortcut
Play / Stop	ALT+F1
Start / stop fast forwarding	CTRL + ALT + F12
Start / stop rewinding	CTRL + ALT + F11

Speechmike button configuration:

The speechmike buttons can be mapped on the shortkeys page of PacsOnWeb (see the following page: Personal configuration shortcut keys (refer to page 93)), by default, the following buttons are mapped.

- The Record button is mapped to the toggle recording functionality. The record button has to be pressed once to start the recording and pressed again to stop the recording.
- The Play/stop button is mapped to the toggle playback functionality. The play button has to be pressed once to start the playback and pressed again to stop the playback.
- The Forward button is mapped to the fast forward functionality. The playback is forwarded as long as the button is pressed.
- The Rewind button is mapped to the rewind functionality. The playback rewinds as long as the button is pressed.

Additionally, any button can be linked to any shortcut. e.g: the F2 button on the speechmike could be mapped to the edit report functionality.

Multi-monitor application

In the multi-monitor application, all of the above topics work without any configuration.

The speechmike buttons also work when the application is not focused, e.g: when the user is working in another external application (Syngo.via), the user can still use the speechmike buttons.

Browser

The speechmike buttons will not work in the browser without configuration.

The speechmike buttons can be used in Chrome, but additional configuration is required.

Info
Contact Dobco Medical Systems Support for the configuration of this functionality.

Synchronous playback:

If the user selects a word or phrase and presses **play**, the corresponding audio of the selected text is played.

Playback is stopped at the end of the selected text.

If the user has not made a selection but the cursor is at a certain location in the text and presses **play**, the audio will be played from the cursor position in the text.

Playback continues until the end of the text is reached.

If the user clicks **stop** during playback, the audio is stopped and the cursor will be located at the corresponding place in the text.

Saving of report audio

The report audio is saved in the background for performance reasons.

If the saving is still in progress when closing the browser tab, a warning message will be displayed.

It is still possible to close the tab, however the related audio file will be lost.

💡 **Tip:**

> For optimal recognition, it is recommended to set the microphone recording volume in the Windows sound settings quite low.
>
> This keeps the recording of background noise to a minimum.
>
> E.g. Speech Mike = 15
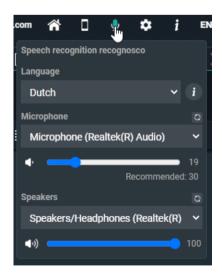
Audio configuration:

The audio configuration can be modified from within PACSonWEB.

By hovering over the microphone icon, a configuration menu will appear which allows to

- Select the language (if more than 1 is configured)
- Select the input device
- Adjust the input volume (first slider)
  - Only possible when using the Multi Monitor Application and non speechmike devices.
  - This setting is saved with combination 'User + input device'.
- Select the output device (for playback)
- Adjust the audio volume (second slider)
  - This setting is saved in a cookie and will be remembered for this computer.
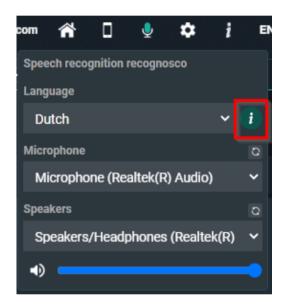
Voice commands:

When using Recognosco speech the following types of voice commands can be used:

- Formatting commands (Bold, Italic, Underline)
- Selection commands
- Navigation commands
- Correction commands
- Microphone commands
- Bullet list commands

To get an overview of all possible Speech commands, click the icon next to the language in the audio configuration:

The 'title' voice command will activate the Heading 1 formatting as configured in Preferences (refer to page 87) section Reporting

Disclaimer

ⓘ **Important!**

The recognized text is not always 100% correct.

It is the responsibility of the radiologist to verify the correctness of the report before validation.

For help on dictation, see section Dictation Help RSDK (refer to page 337) in the user manual or visit the help page of RSDK https://recognosco.com/help-support🔗.

8.3.2 Transcriptionist workflow
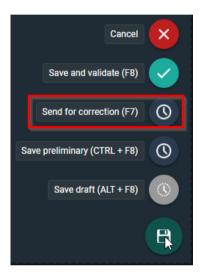
PACSonWEB supports a transcriptionist workflow, allowing a transcriptionist to verify and correct the registered report, based on the sound recording of the report.

To listen to the audio of the report dictated by the radiologist RSDK speech needs to be enabled for the radiologist and the transcriptionist.

Workflow:

When saving a report, the radiologist can start the transcription workflow by using the option "Send for correction".

The study status will be set to "Pending report correction".
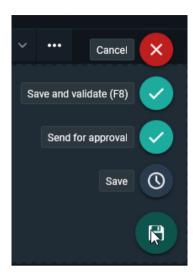
A transcriptionist can now open the study and listen to the audio of the report and correct any errors in the report.

The transcriptionist has the following options to save the report:

- Save and validate
- Send for approval
- Save

By clicking "Save and validate", the report is saved and validated on behalf of the radiologist. Study status is set to "Finalized".

📝 **Note:**

this requires an additional permission for the transcriptionist.

When using "Send for approval", the report is saved and sent back to the radiologist for validation. Study status is set to "To Validate".

In case the "Save" option is used, changes are saved and the transcriptionist can finish the report later. Study status remains "Pending report correction"

8.3.3 Resident - Supervisor workflow

PACSonWEB supports a Resident - Supervisor workflow, allowing a supervisor to validate the report of a resident.
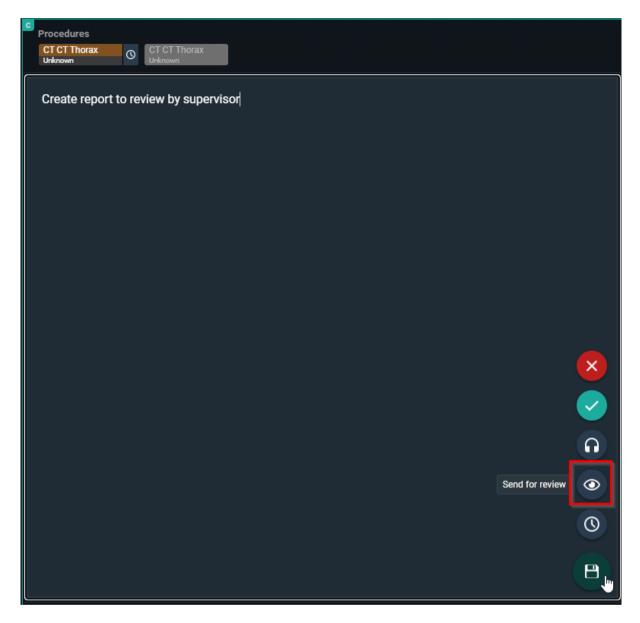
A resident in POW is defined as a user who can edit a report, but not validate it.

This workflow can also be used as a co-author workflow between radiologists.

Resident workflow

The resident creates a report and sends it for review to the supervisor.
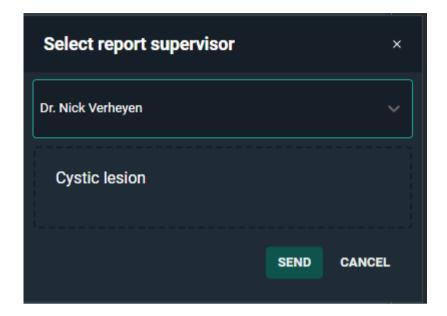
When clicked on send for review, the supervisor needs to be selected (this requires a correct external user mapping).

Optional a message can be added to give extra information.

The workflow can end here for the resident if the supervisor validates the report.

However, if the Supervisor chooses to send it back to the author (explained in Supervisor workflow), the resident finds the study in the All my Unread worklist.

The same workflow as above can be followed again until the report is validated.

Supervisor workflow:

The study is shown in the in the "My Reviews" worklist of the supervisor. The status of the study will be: Pending second validation.
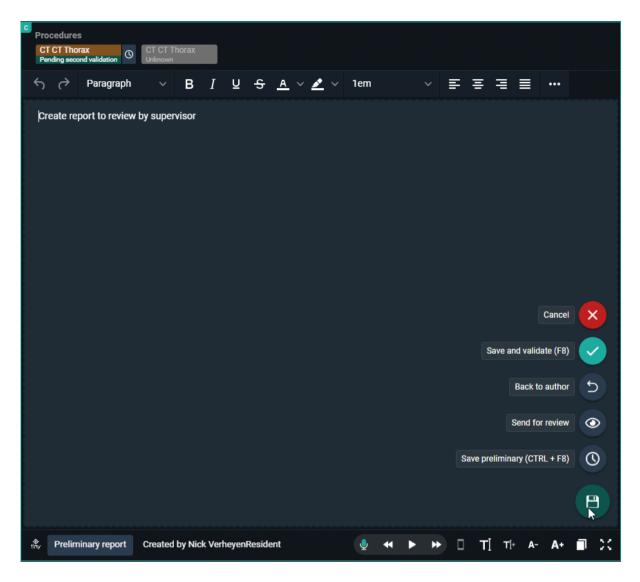
To correct the report the resident made, open the study and open the report (if not automatically opened).
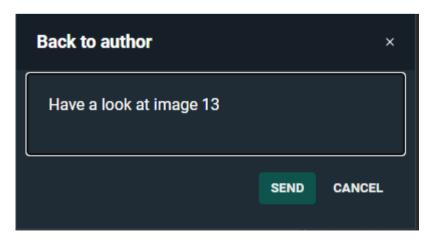
When the corrections have been made, the supervisor has following options:

- Save and validate: Status Finalized
- Back to author (Resident): Status To Validate
- Send for review (Another radiologist): Status Pending second validation
- Save preliminary: Status To Validate

If back to author is selected, the supervisor can give an optional message to indicate why he is sending the report back.
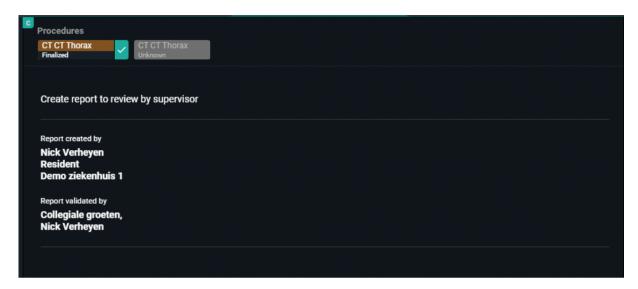
The resident needs to correct the report again and than has to follow the same workflow as mentioned in the Resident workflow again.

This is done until the report is validated by a Supervisor.

When the report is validated, both signatures (if configured) will be added to the report.

8.3.4 Dictation Help RSDK

Numbers

Cardinal Numbers

To make this appear	Say this …
five	five
12	twelve
34	thirty four
122	(one) hundred (and) twenty two
535	five hundred (and) thirty five
2,211	two thousand two hundred (and) eleven

To make this appear	Say this …
338,945	three hundred (and) thirty eight thousand nine hundred (and) forty five
241,305,060	two hundred (and) forty one million three hundred (and) five thousand (and) sixty

📝 **Note:**

Whole numbers from 0 through 9 are spelled out, but are written in digits if occurring in certain contexts (for examples see sections "Numeral Affixes", "Ratio", "Dictating 'by'", "Number Range", "Words triggering cardinal numbers as digits", "Date, Time & Currency" and "Medical Terms"). Cardinal numbers greater than (and equal to) 10 are generally written as digits.

Ordinal Numbers

To make this appear	Say this …
first	first
fifth	fifth
12th	twelfth
56th	fifty sixth

📝 **Note:**

Ordinal numbers from 0th through 9th are spelled out, but are written in digits if occuring in certain contexts (for examples see section "Words triggering ordinal numbers as digits"). Ordinal numbers greater than (and equal to) 10th are generally written as digits.

Decimal Numbers

To make this appear	Say this …
3.75	three point seventy five

To make this appear	Say this ...
37.23	thirty seven point twenty three
4.359	four point three five nine

Fractions

To make this appear	Say this ...
1/2	one half
1/3	one third
2/3	two thirds
1/4	one quarter
3/4	three quarters
1 1/2	one and a half
2 1/3	two and a third
7 2/3	seven and two thirds
10 1/4	ten and a quarter

Numeral Affixes

To make this appear	Say this ...
+2	plus two
-2.5	minus two point five
-2.5	negative two point five
+/-182	plus (or) minus one hundred eighty two

To make this appear	Say this …
2+	two plus
2.5-	two point five minus
2.5-	two point five negative
182+/-	one hundred eighty two plus (or) minus
< 2	less than sign two
> 4	greater than sign four
= 5	equals five
3 + 3	three plus three
5 > 3	five greater than sign three

Roman Numerals

To make this appear	Say this …
III	Roman number three
III	Roman numeral three
VI	Roman number six
VI	Roman numeral six
XX	Roman number twenty
XX	Roman numeral twenty
X	Roman ten

Ratio

To make this appear	Say this …
1:5	one to five
1:250	one to two hundred (and) fifty
3:1	three to one

Dictating "by"

To make this appear	Say this …
4 x 4	four by four
4 x 4	four times four
3 x 4 cm	three by four centimeters
3 x 4 mg	three times four milligrams
5 mm x 3 cm	five millimeters by three centimeters
2.5 x 3 x 4 cm	two point five by three by four centimeters

Number Range

To make this appear	Say this …
3-4	three to four
150-200	one hundred (and) fifty to two hundred

Words triggering cardinal numbers as digits

To make this appear	Say this …
appendix 2 and 5	appendix two and five

To make this appear	Say this …
chapters 8-9	chapters eight to nine
part 9	part nine
supplement 6	supplement six
volume 7-8	volume seven to eight
column 3	column three
parts II or IV	parts Roman number two or Roman number four
chapters 2, 3 and 4	chapters two comma three and four
Dublin 1	Dublin one
Dublin 6W	Dublin six W

Words triggering ordinal numbers as digits

To make this appear	Say this …
1st birthday	first birthday
2nd centile	second centile
3rd course	third course
4th cycle	fourth cycle
5th day	fifth day
6th degree	sixth degree
5th finger	fifth finger
7th floor	seventh floor

To make this appear	Say this …
8th grade	eighth grade
9th month	ninth month
1st nerve	first nerve
2nd percentile	second percentile
3rd pregnancy	third pregnancy
4th rib	fourth rib
5th stage	fifth stage
2nd toe	second toe
6th trial	sixth trial
5th week	fifth week
6th year	sixth year

Spelling of Numbers

To make this appear	Say this …
022156680215	zero double two one five double six eight zero two one five
02215–6680215	zero double two one five dash double six eight zero two one five
44–17D	forty four dash seventeen D
18962–16HM	one eight nine six two dash sixteen H M

Numbering

To make this appear	Say this …
1.	number one
2.	number two
3.	number three
A.	(letter) A period
B.	(letter) B period
C.	(letter) C period

Date, Time & Currency

Date

To make this appear	Say this …
4 July 2002	fourth (of) July two thousand two
04/07/2002	fourth (of) seventh two thousand two
04/07/08	(zero) four (slash) (zero) seven (slash) zero eight
04/07	(zero) four (slash) (zero) seven
December 3, 2000	December third two thousand
December 2000	December two thousand
31/12/2005 - 05/01/2006	thirty one (slash) twelve (slash) two thousand five to (zero) five (slash) (zero) one (slash) two thousand six

To make this appear	Say this ...
31/12 - 05/01	thirty one slash twelve to zero five slash zero one
31 December - 5 January	(the) thirty first (of) December to (the) fifth (of) January
December 09 to January 10	December zero nine to January ten
April to May 09	April to May zero nine

Time

To make this appear	Say this ...
at 09:45	at zero nine forty five
3:30 p.m.	three thirty P M
6 o'clock	six o'clock
2:00 a.m.	two A M
0200 hours	zero two hundred hours
10:50-11:30	ten fifty to eleven thirty
12:00-12:50 p.m.	twelve to twelve fifty p.m.
10:50 a.m. - 12:30 p.m.	ten fifty a.m. to twelve thirty p.m.

Decades

To make this appear	Say this ...
the 70s	the seventies
1960s	nineteen sixties
1980s	nineteen hundred eighties

Age

To make this appear	Say this …
2-day-old	two day old
5-week-old	five week old
3-month-old	three month old
10-year-old	ten year old

Currency

To make this appear	Say this …
£35	pound thirty five
£35	thirty five pound sterling
£35.10	pound thirty five point ten
£35.10	thirty five pound and ten pence
£35.00	thirty five pound and zero pence
GBP 35	thirty five British pound
IEP 3 billion	three billion Irish pound
CHF 3.50	three Swiss franc and fifty centimes
NOK 35.29	thirty five Norwegian crown and twenty nine øre
$13.09	dollar thirteen point zero nine
USD 13.09	thirteen point zero nine US dollar
USD 13.09	thirteen point zero nine American dollar

To make this appear	Say this ...
AUD 13.09	thirteen point zero nine Australian dollar
€3-4	three to four euro
€3 to €4	three euro to four euro
€3.00-4.50	three point zero to four point fifty euro
€3-4 million	three to four million euro
¥3-4 million	three to four million yen
JPY 3-4 million	three to four million Japanese yen

Medical Terms

Units

To make this appear	Say this ...
3 mg	three milligrams
10 mEq	ten milliequivalent
10 µmol/L	ten micromole per litre
-5 °C	minus five degrees Celsius
5%	five percent

For a full alphabetical list of units see section "Punctuation marks and special characters > List of units".

Blood Count

To make this appear	Say this ...
Hb 14.2	H B fourteen point two

To make this appear	Say this …
ALT 195	A L T (one) hundred (and) ninety five
albumin 40	albumin forty
CRP 6	C R P six
U&Es	U and Es
SO2 93%	S O two ninety three percent
amylase = 157	amylase equals (one) hundred (and) fifty seven

Hyphenated Phrases

To make this appear	Say this …
a 2-week course	a two week course
a 2-mm diameter	a two millimeter diameter

Times

To make this appear	Say this …
x3	times three
x5-6 daily	times five to six daily
3 times	three times
5-6 times	five to six times

Scales

To make this appear	Say this …
7/9	seven out of nine

To make this appear	Say this …
7/9	seven over nine
6-7/10	six to seven out of ten
6-7/10	six to seven over ten
19/28	nineteen out of twenty eight
19/28	nineteen over twenty eight

Snellen Fractions

To make this appear	Say this …
6/6	six six
6/6	six (slash/over) six
6/6-2	six six minus two
6/6-2	six (slash/over) six minus two
6/9+3	six nine plus three
6/9+3	six (slash/over) nine plus three
6/18	six eighteen
6/18	six (slash/over) eighteen

Cardio-thoracic Ratio

To make this appear	Say this …
CTR 140/285	CTR (one) hundred (and) forty over two hundred (and) eighty five
CTR 140:285	CTR (one) hundred (and) forty to two hundred (and) eighty five

Dosage

To make this appear	Say this …
q.4 h.	Q four H
q.24 h.	Q twenty four hours

Blood Pressure

To make this appear	Say this …
120/90	(one) hundred (and) twenty over ninety
240/40 mmHg	two hundred (and) forty over forty M M H G
110-120 over 90-80 mmHg	(one) hundred (and) ten to (one) hundred (and) twenty over ninety to eighty millimeters of mercury

French Scale

To make this appear	Say this …
5-French	five French
#24-French	number twenty four French

Numbers and letters

To make this appear	Say this …
A2	A two
G44	G forty four
5b	five B
30e	thirty E

Suture Size

To make this appear	Say this ...
2-0	two (to) zero
5-0	five (to) zero
11-0	eleven (to) zero

Stages

To make this appear	Say this ...
Stage I	stage (Roman) one
Stage I-II	stage (Roman) one to (Roman) two
Stage IIa	stage (Roman) two A
Salter-Harris Type II fracture	Salter-Harris type (Roman) two fracture
Type II Salter-Harris fracture	type (Roman) two Salter-Harris fracture

Gravida

To make this appear	Say this ...
gravida 2	gravida two
gravida 5, para 4	gravida five (comma) para four
para 2+1	para two plus one
abortus 3	abortus three
TPAL 1-0-1	T P A L one zero one
para 1-2-0-1	para one two zero one

Apgar Scores

To make this appear	Say this ...
Apgars 8 at 1 and 9 at 5 minutes	Apgars eight at one and nine at five minutes
Apgar scores were 8 at 1 minute and 9 at 5 minutes	Apgar scores were eight at one minute and nine at five minutes

Vertebrae

To make this appear	Say this ...
T12	T twelve
L3/L4	L three four
L3/L4	L three L four
L3/L4	L three (forward) slash L four
C1-C5	C one to C five

V1-V9

To make this appear	Say this ...
V1 through V5	V one through V five
V1 - V5	V one to V five

BI-RADS

To make this appear	Say this ...
BI-RADS 5	BI-RADS five
BI-RADS 0	BI-RADS zero

TNM Staging

To make this appear	Say this ...
T1N0M0	T one N zero M zero
T0N1M1	T zero N one M one
TXNX	T X N X
pT4a	P T four A
pT2cN1MX	P T two C N one M X

Cluster of Differentiation

To make this appear	Say this ...
CD121	C D one hundred twenty one
CD73a	C D seventy three A

Teeth

To make this appear	Say this ...
LL1	L L one
UR8	U R eight
LR2	L R two
UL4	U L four

Block Keys

To make this appear	Say this ...
block A	block A
block 1A	block one A

To make this appear	Say this …
blocks 1A-1D	blocks one A to one D
blocks 1A, 1B and 1C	blocks one A COMMA one B and one C

Query Sign

To make this appear	Say this …
chest pain ? cause	chest pain query sign cause
diagnosis would be ?? demyelination	diagnosis would be query sign query sign demyelination

Punctuation marks and special characters

Whitespace characters

To make this appear	Say this …
Insert a new line in the document	New line
Insert a new paragraph in the document	New paragraph; Next paragraph; Paragraph
Insert a tab	Tabulator; Tabulator key; Tab key

Punctuation marks

To make this appear	Say this …
.	Full-stop; Stop; Period; Dot; Point
!	Exclamation mark; Exclamation point
?	Question mark; Question point; Query sign
,	Comma

To make this appear	Say this ...
:	Colon
;	Semicolon

Dash

To make this appear	Say this ...
–	Dash; Dash sign; En dash; En dash sign
—	Em dash; Em dash sign
--	Double dash; Double dash sign

Signs

To make this appear	Say this ...
-	Hyphen; To *(with numbers)*
'	Apostrophe; Apostrophe sign
's	Apostrophe S; Apostrophe S sign
_	Underscore; Underscore sign
`	Back quote; Grave accent
&	And sign; Ampersand; Ampersand sign
/	Slash; Forward slash; Forward stroke
\	Backslash
//	Double slash
~	Tilde; Tilde sign

To make this appear	Say this …
^	Caret; Caret sign; Circumflex; Circumflex sign
@	At sign; At symbol
…	Dot dot dot; Ellipsis sign
#	Number sign; Hash sign; Sharp sign
%	Percent sign; Percentage sign
‰	Per mille; Per mille sign
°	Degree sign; Degree symbol

Quotes

To make this appear	Say this …
'	Open single quote(s); Begin single quote(s)
'	Close single quote(s); End single quote(s)
"	Open quote(s); Begin quote(s); Open double quote(s); Begin double quote(s); Open inverted comma(s); Begin inverted comma(s)
"	Close quote(s); End quote(s); Close double quote(s); End double quote(s); Close inverted comma(s); End inverted comma(s)
«	Open angle quote(s); Begin angle quote(s); Open guillemet(s); Begin guillemet(s)

To make this appear	Say this …
»	Close angle quote(s); End angle quote(s); Close guillemet(s); End guillemet(s)

Brackets

To make this appear	Say this …
(	Bracket(s); Open bracket(s); Left bracket(s); Parenthesis; Open parenthesis; Left parenthesis; Open paren; Left paren
)	Close bracket(s); Right bracket(s); Close parenthesis; Right parenthesis; Close paren; Right paren
[	Square bracket(s); Open square bracket(s); Left square bracket(s)
]	Close square bracket(s); Right square bracket(s)
{	Brace(s); Curly brace(s); Curly bracket(s); Open brace(s); Open curly brace(s); Open curly bracket(s); Left brace(s); Left curly brace(s); Left curly bracket(s)
}	Close brace(s); Close curly brace(s); Close curly bracket(s); Right brace(s); Right curly brace(s); Right curly bracket(s)
‹	Angle bracket(s); Open angle bracket(s); Left angle bracket(s)
›	Close angle bracket(s); Right angle bracket(s)

Mathematical Signs

To make this appear	Say this …
<	Less than sign
>	Greater than sign
=	Equal sign; Equality sign
+	Plus sign; Plus
-	Minus sign
+/-	Plus or minus sign; Plus minus sign; Plus or minus
*	Asterisk
×	Multiplication sign; Times sign
÷	Division sign
|	Vertical bar; Pipe sign
¬	Logical not sign; Logical not symbol
ƒ	Function sign
μ	Micro sign
¼	Quarter sign
½	Half sign
¾	Three quarters sign
^{1}	Superscript one sign
^{2}	Superscript two sign

To make this appear	Say this ...
³	Superscript three sign

Currency

To make this appear	Say this ...
€	Euro sign
£	Pound sterling sign; Pound sign
$	Dollar sign
¢	Cent sign
¥	Yen sign
¤	Currency sign

Others

To make this appear	Say this ...
©	Copyright sign
®	Registered sign; Registered trademark sign; Registered symbol; Registered trademark symbol
™	Trademark sign; Trademark symbol
¶	Paragraph sign; Paragraph mark
§	Section sign; Sectional symbol
·	Bullet point
†	Dagger sign; Cross sign
‡	Double dagger sign; Double cross sign

To make this appear	Say this ...
ª	Feminine ordinal indicator
º	Masculine ordinal indicator
¡	Inverted exclamation mark; Inverted exclamation point
¿	Inverted question mark; Inverted question point
´	Acute accent
·	Middle dot; Interpunct; Interpoint; Centred dot
¸	Cedilla sign
¨	Umlaut sign
¯	Macron sign
¦	Broken bar sign

List of units

To make this appear	Say this ...
%	percent
/min	per minute
°	degree; degrees; degrees sign
°C	degree Celsius; degree centigrade; degrees Celsius; degrees centigrade
°F	degree Fahrenheit; degrees Fahrenheit
µA	microampere; microamperes

To make this appear	Say this …
µg	microgram; micrograms
µL	microliter; microliters
µm	micrometer; micrometers
µmol	micromole; micromoles
µs	microsecond; microseconds
µV	microvolt; microvolts
µW	microwatt; microwatts
‰	‰\per-mille-sign
A	ampere; amperes
acre	acre
acres	acres
ampoule	ampoule
ampoules	ampoules
atm	atmosphere; atmospheres
bar	bar
bars	bar
beat/min	beat per minute
beats/min	beats per minute
biopsies	biopsies

To make this appear	Say this …
biopsy	biopsy
bit	bit
bits	bits
block	block
blocks	blocks
bottle	bottle
bottles	bottles
box	box
boxes	boxes
bpd	barrel per day; barrels per day; barrel a day; barrels a day; B P D
bpm	B P M
Bq	becquerel; becquerels
C	coulomb; coulomb
cal	calorie; calories
can	can
cans	cans
capsule	capsule
capsules	capsules
cassette	cassette

To make this appear	Say this ...
cassettes	cassettes
cc	CC
cd	candela; candelas
cGy	centigray; centigrays
cigar	cigar
cigarette	cigarette
cigarettes	cigarettes
cigars	cigars
cL	centiliter; centiliters
cm	centimeter; centimeters
cm²	square centimeter; square centimeters; centimeter squared; centimeters squared
cm³	cubic centimeter; cubic centimeters
core	core
cores	cores
cup	cup
cups	cups
cycle	cycle
cycles	cycles

To make this appear	Say this …
day	day
days	days
dB	decibel; decibels
dL	deciliter; deciliters
dm	decimeter; decimeter
dm²	square decimeter; square decimeters; decimeter squared; decimeters squared
dm³	cubic decimeter; cubic decimeters
drop	drop
drops	drops
Eq	equivalent; equivalents
feet	feet
fL	femtolitre; femtolitres
foot	foot
fragment	fragment
fragments	fragments
g	gram; grams
gauge	gauge
GBq	gigabecquerel; gigabecquerels
GHz	gigahertz

To make this appear	Say this ...
glass	glass
glasses	glasses
grain	grain
grains	grains
Gy	gray; grays
h	hour; hours
ha	hectare; hectares
hour	hour
hours	hours
HU	Hounsfield unit; Hounsfield unit
Hz	hertz
inch	inch
inches	inches
inhalation	inhalation
inhalations	inhalations
injection	injection
injections	injections
IU	international unit; international unit
J	joule; joule

To make this appear	Say this ...
K	kelvin; kelvins
kA	kiloampere; kiloamperes
kBq	kilobecquerel; kilobecquerel
kcal	kilocalorie; kilocalorie
kg	kilogram; kilogram
kHz	kilohertz
kJ	kilojoule; kilojoule
km	kilometre; kilometre
km²	square kilometre; square kilometres; kilometre square; kilometres square
km³	cubic kilometre; cubic kilometres
kmol	kilomole; kilomoles
kPa	kilopascal; kilopascals
kV	kilovolt; kilovolts
kW	kilowatt; kilowatts
L	litre; litres
lesion	lesion
lesions	lesions
lymph node	lymph node
lymph nodes	lymph nodes

To make this appear	Say this ...
m	metre; metres
m²	square metre; square metres; metre squared; metres squared
m³	cubic metre; cubic metres
mA	milliampere; milliamperes
mbar	millibar; millibar
MBq	megabecquerel; megabecquerels
mCi	millicurie; millicuries
mEq	milliequivalent; milliequivalents
mg	milligram; milligrams
mGy	milligray; milligrays
mGycm	milligray centimetre; milligrays centimetre
mHz	millihertz
MHz	megahertz
mile	mile
miles	miles
min	minute
minute	minute
minutes	minutes

To make this appear	Say this ...
mIU	million international unit; million international units
mJ	millijoule; millijoules
mL	millilitre; millilitres
mm	millimetre; millimetres
mm²	square millimetre; square millimetres; millimetre squared; millimetres squared
mm³	cubic millimetre; cubic millimetres
mmHg	millimetre of mercury; millimetres of mercury
mmol	millimole; millimoles
mol	mole; moles
month	month
months	months
mph	mile per hour; miles per hour
ms	millisecond; milliseconds
mSv	millisievert
mU	million unit; million units
mV	millivolt; millivolts
mW	milliwatt; milliwatts
MW	megawatt; megawatts

To make this appear	Say this ...
N	newton; newtons
needle	needle
ng	nanogram; nanograms
night	night
nm	nanometre; nanometres
nmol	nanomole; nanomoles
node	node
nodes	nodes
ns	nanosecond; nanoseconds
ounce	ounce
Pa	pascal; pascals
pack	pack
packet	packet
packets	packets
packs	packs
pg	picogram; picograms
piece	piece
pieces	pieces
pill	pill

To make this appear	Say this …
pills	pills
pint	pint
pints	pints
pmol	picomole; picomoles
portion	portion
portions	portions
pound	pound
pounds	pounds
psi	pounds per square inch
puff	puff
puffs	puffs
rod	rod
rods	rods
rpm	revolution per minute; revolutions per minute; R P M
sec	second
second	second
seconds	seconds
section	section
sections	sections

To make this appear	Say this …
slice	slice
slices	slices
slide	slide
slides	slides
specimen	specimen
specimens	specimens
spray	spray
sprays	sprays
sq ft	square foot; square feet
sq in	square inch; square inches
sq mi	square mile; square miles
sq rd	square rod; square rods
sq yd	square yard; square yards
stitch	stitch
stitches	stitches
stone	stone
t	ton; tons
tablespoon	tablespoon
tablespoons	tablespoons

To make this appear	Say this …
tablet	tablet
tablets	tablets
teaspoon	teaspoon
teaspoons	teaspoons
unit	unit
units	units
V	volt; volts
W	watt; watts
week	week
weeks	weeks
yard	yard
yards	yards
year	year
years	years

Lexical References

Dictionaries

As a reference we used the following dictionaries:

Oxford Dictionary of English, Third Edition, 2010

Longman Pronunciation Dictionary, Third Edition, 2008

Michael Swan: Practical English Usage. Oxford University Press, 3rd edition 2012

Concise Medical Dictionary. Oxford University Press, 7th Edition, 2007

Illustrated Medical Dictionary. The British Medical Association, 2nd edition 2007

New Guide to Medicines and Drugs. The British Medical Association, 7th edition revised and updated 2007

Commands

Formatting commands

The following table shows commands to work with text during dictation. Words in *italic* font indicate that you can say many different things in place of the example word or phrase and get useful results.

To make this appear	Say this …
Insert the literal word for the next command (for example, you can insert the word "comma" instead of the punctuation mark)	Literal *word*
Insert the numeral form of a number	Numeral *number*
Don't insert a space before the next word	Delete space
Capitalize the first letter of the word	Caps *word*
Capitalize all the letters of the word	All caps *word*
Make all the letters in the word lowercase	No caps *word*

TextBlock and navigation commands (Frontend recognition only)

To make this appear	Say this …
Navigate to the next anchor	next section; next field; next
Navigate to the previous anchor	previous section; previous field; previous
Navigate to an anchor directly	*anchor name*; go to *anchor name*; jump to *anchor name*

To make this appear	Say this …
Navigate to the beginning of the report	(go to) beginning of report; (go to) beginning of document
Navigate to the end of the report	(go to) end of report; (go to) end of document
Navigate to the beginning of the line	(go to) beginning of line
Navigate to the end of the line	(go to) end of line
Navigate to the beginning of the section	(go to) beginning of section; (go to) beginning of field
Navigate to the end of the section	(go to) end of section; (go to) end of field
Insert a TextBlock	insert *TextBlock name*

Correction commands (Frontend recognition only)

To make this appear	Say this …
Select dictated text	select *text*
Resolve ambiguities of select command in case of multiple appearances throughout the report	*OK* or *number* to confirm selection; *Cancel* to cancel selection
Select current line, i.e. the text between new lines before and after the text cursor is selected.	select line
Select current paragraph, i.e. the text between paragraphs before and after the text cursor is selected.	select paragraph
Select the current sentence	select sentence
Select the content of the edit control.	select all

To make this appear	Say this …
📝 **Note:** In case of a multi edit control use case, only the text of the active edit control is selected.	
Cut the text of the current selection and add it to the clipboard	cut text
Copy the text of the current selection and add it to the clipboard	copy text
Paste the text at the current position	paste text
Delete selected text or last speech result 📝 **Note:** If triggered on a text selection: the selected text will be deleted 📝 **Note:** If triggered without a text selection: the last speech result will be removed (note: any speech command or manual editing will invalidate the last speech result buffer and the command will not trigger any action)	delete that; scratch that

8.4 Multi-procedure reporting

Multi procedure reporting is creating 1 report for an order with more than 1 procedure.
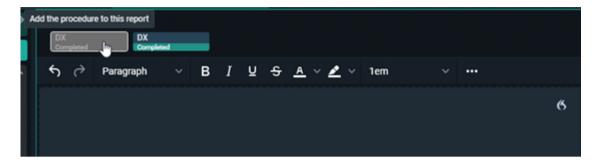
Only procedures in the same order and don't have a report can be added.

There are 3 possible ways to work with multi-procedure reporting. The actual behaviour is defined by a setting, configured for the source.
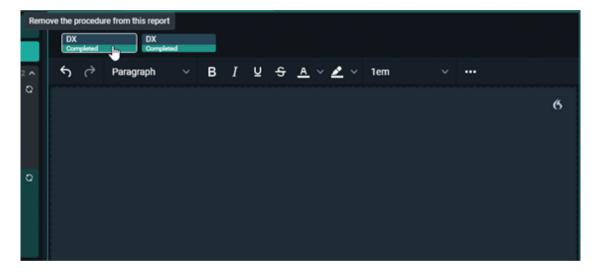
1) Single study

The report will only be linked to the selected procedure. It is possible to link procedures manually to the report by highlighting the procedure description.

2) All from order
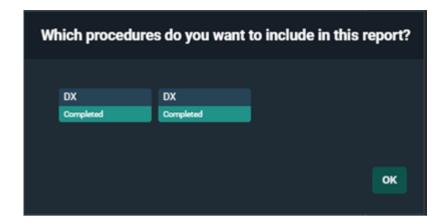
The report will automatically be linked to all studies from the order. It is still possible to remove them from the report by deselecting the procedure description.

3) Pop – up window

A pop-up window appears to select the procedures that you want to include in the report.

⚠️ **Warning:**

Procedures can only be added and removed when the report is in edit mode.

Multi Monitor application

9

The Multi Monitor application provides support for the use of multiple screens for viewing images via PACSonWEB.

It has also supports integrations with external apps and viewers.

This allows you to maintain your PACSonWEB workflow but at the same time use the study data in other supported applications.

When starting the application for the first time, a wizard appears to perform the monitor configuration.

The full explanation on how to perform the configuration is given here: Multi Monitor configuration (refer to page 378).

In case you want to change your configuration at a later moment in time, open the user settings via the cogwheel ⚙ and click on: **Reconfigure my monitor setup**.

Multi monitor	Multi monitor
	RECONFIGURE MY MONITOR SETUP
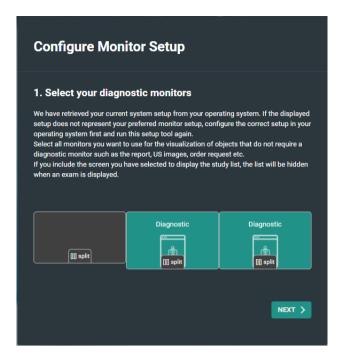
9.1 Multi Monitor configuration

Perform the following steps to configure your monitor setup:

Step 1: Select your diagnostic monitors
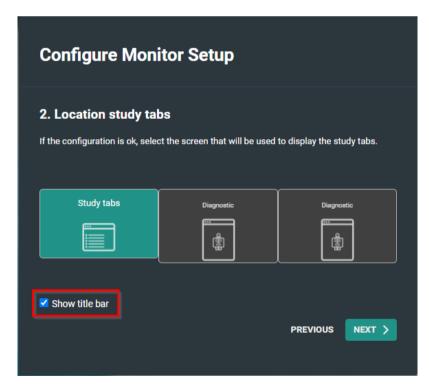
Click a monitor to select / deselect it as a diagnostic monitor.

Click "Split" to divide a large screen in two virtual separate monitors. Click "Merge" to undo this.
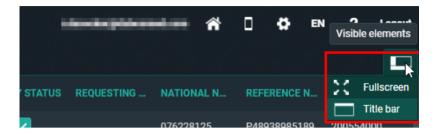
Step 2: Select the location of the study tab

Show title bar is selected by default.

If you choose to deselect it, it can always be manually turned on from the button "Visible elements".

Step 3: Select the non-diagnostic monitor
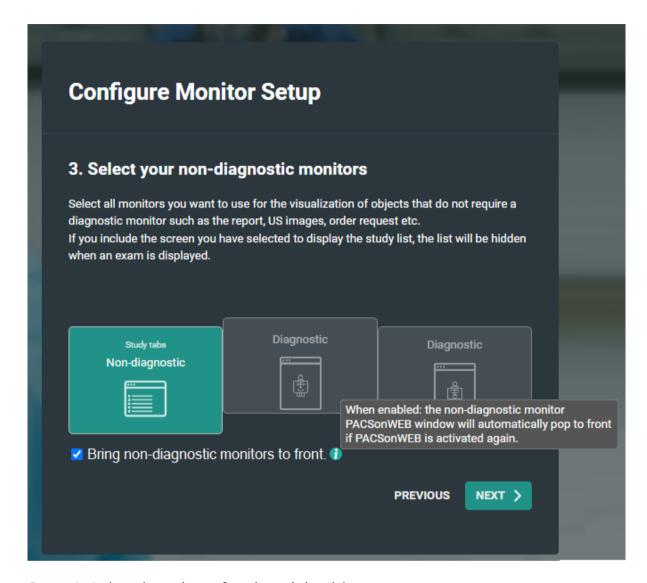
In this step you have the option to bring the non-diagnostic monitor to front or not.

By default this is checked, so the default behavior does not change.

📝 **Note:**

If in step 1, you selected only one monitor as non-diagnostic, this configuration step will be skipped.
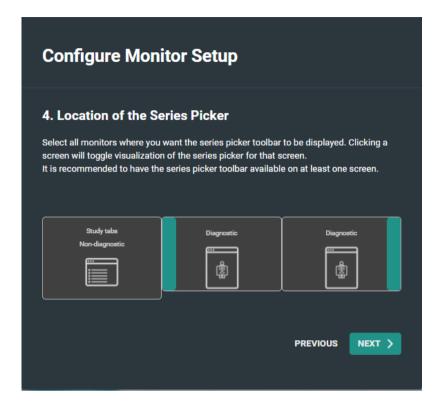
Step 4: Select location of series picker(s)

You can modify the location of the series picker by clicking the monitor.
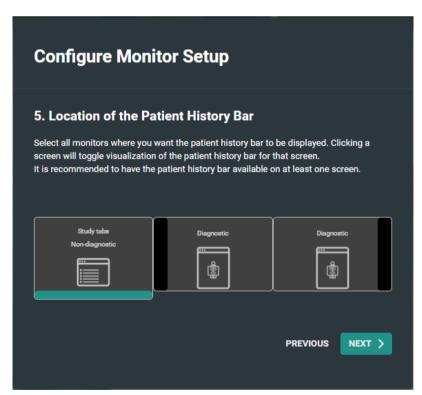
The series picker will be displayed subsequently on the selected screen on the left side, the right side or not at all.
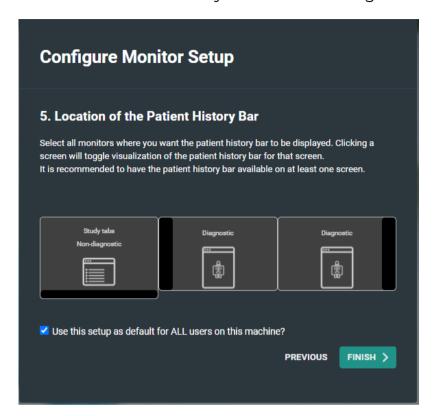
Step 5: Location of patient history bar

You can either display or hide the series picker at the bottom of the screen by clicking on a the monitor.

Step 6: Confirm the monitor configuration

Click "Finish" to confirm your monitor configuration.

By default the checkbox to use this configuration for all users is enabled.

If other people using the same workstation in a different configuration you should disable this option.

Version and remote assistance
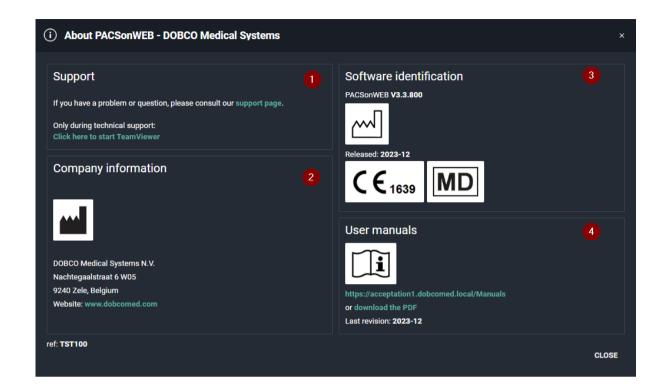
The label of PACSonWEB can be displayed by clicking on 'About PACSonWEB' from the Help menu [**?**] on the top right of the screen.

Within this screen the following information is displayed:

(1) Link to our support page with frequently asked questions and answers.

(2) all information with respect to the manufacturer of PACSonWEB

(3) all information with respect to the actual version of PACSonWEB and the corresponding release date

(4) all information with respect to the manual for PACSonWEB and the latest revision date

> 📝 **Note:**
>
> In this screenshot the version number is v3.3.800
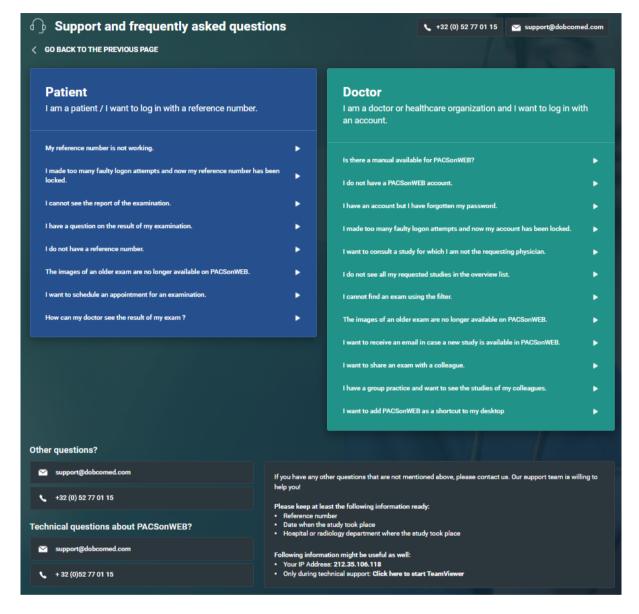
From the Help menu, you can also

- consult the online user manual
- download the user manual in PDF format
- consult the support page (see below)
- download the PACSonWEB application for multimonitor support

If you experience an issue when using PACSonWEB, you can consult our 'Support page'.

This page lists the most frequently asked questions and answers.

Support and frequently asked questions   📞 +32 (0) 52 77 01 15   ✉ support@dobcomed.com

< GO BACK TO THE PREVIOUS PAGE

Patient
I am a patient / I want to log in with a reference number.

My reference number is not working.	▶
I made too many faulty logon attempts and now my reference number has been locked.	▶
I cannot see the report of the examination.	▶
I have a question on the result of my examination.	▶
I do not have a reference number.	▶
The images of an older exam are no longer available on PACSonWEB.	▶
I want to schedule an appointment for an examination.	▶
How can my doctor see the result of my exam ?	▶

Doctor
I am a doctor or healthcare organization and I want to log in with an account.

Is there a manual available for PACSonWEB?	▶
I do not have a PACSonWEB account.	▶
I have an account but I have forgotten my password.	▶
I made too many faulty logon attempts and now my account has been locked.	▶
I want to consult a study for which I am not the requesting physician.	▶
I do not see all my requested studies in the overview list.	▶
I cannot find an exam using the filter.	▶
The images of an older exam are no longer available on PACSonWEB.	▶
I want to receive an email in case a new study is available in PACSonWEB.	▶
I want to share an exam with a colleague.	▶
I have a group practice and want to see the studies of my colleagues.	▶
I want to add PACSonWEB as a shortcut to my desktop	▶

Other questions?

✉ support@dobcomed.com

📞 +32 (0) 52 77 01 15

Technical questions about PACSonWEB?

✉ support@dobcomed.com

📞 + 32 (0)52 77 01 15

If you have any other questions that are not mentioned above, please contact us. Our support team is willing to help you!

Please keep at least the following information ready:
- Reference number
- Date when the study took place
- Hospital or radiology department where the study took place

Following information might be useful as well:
- Your IP Address: 212.35.106.118
- Only during technical support: **Click here to start TeamViewer**

If the answer to your question is not listed, you can let one of our service desk agents control your pc remotely.

Select "Click here to start teamviewer" at the bottom at the section "Other questions or issues?" at the bottom of support page and pass your Team Viewer ID to the support agent.

10.1 Release notes

10.1.1 Release notes version 3.3.800 (Decemeber 2023)

Project Plan	Release Note
EMR Gateway	FIX: EMR gateway link with patient national number doesn't work
Sources	New filter capabilities in the management pages, for client config settings, user settings and source detail settings.

Viewer	FIX: an issue was fixed where reference lines and series linking did not work properly for multi-frame datasets.
Image Viewing and Manipulation	FIX: an issue was fixed where inverting a full-screen mammography image could result in a black screen.
DICOM Processor	FIX: an issue was fixed where IOCM messages containing allot of referenced SOP instances could not be processed.
Reports	FIX: If using the pop-up for selecting the procedures for a multi-procedure report this results if one of the studies is locked.
Reports	FIX: an issue was fixed where a Spanish voice command could not be used to insert a text block into the report.
Reports	FIX: an issue was fixed where the report could not be edited after visiting the study administration page.
Home Reading App	The PACSonWEB app is now available on the most recent Android releases.
Viewer	FIX: an issue was fixed where attachments/documents could not be uploaded if the filename extension was in uppercase.
Multi-Monitor	Ctrl+Shift+M in Multi-monitor app now triggers a clean restart of the app.
Reports	FIX: Optional pop-up when starting a report for an order with multi-procedure was shown twice.

MPR	FIX: an issue was fixed where different slices within an MPR volume had different window/level settings applied, resulting in large brightness/contrast variations throughout the volume.
Home Reading App	FIX: Home reading crashes when pairing while report is already in edit mode
Viewer	FIX: Give decent message to user when document does not open in viewer because a new version was send since opening the study.
WCF	FIX: an issue was fixed where inbound HL7 text fragments could be truncated in case they contained special characters.
Viewer	FIX: an issue has been fixed where certain images could not be displayed if the window width and center had "NaN" values in the DICOM tags.
Reports	FIX: an issue was fixed where an error would occur when switching between speech recognition languages.
Access	Additional logging is now available on study access revocation.
Reports	Improved workflow when cycling multiple studies to report.
Worklist	Sorting the worklist based on the Status column now uses the underlying priority for each status, rather than sorting alphabetically.
Studies	When moving a source study to a destination study, the actual workflow

	status of both studies are now displayed. Before initiating the move, the user can choose what should be the resulting workflow status for the destination study.
Multi-Monitor	FIX: an issue was fixed where an error was displayed after logging out of the multi-monitor app.
Reports	FIX: an issue was fixed where users received error notifications in case their login session had expired.
Studies	FIX: an issue was fixed where patient anomalies (for patients without studies) where not visible by default in the anomalies overview.
Reports	Series panel state is maintained when reloading a study while editing a multi-procedure report.
Reports	FIX: an issue has been fixed where reports would not be exported if the client is temporarily offline.
Local Image Cache	FIX: Custom DICOM tags in study overlay could have different values when loaded from local image cache.
Studies	FIX: an issue has been fixed where trying to move images/series to an empty study (in the study administration page) fails
Token Based Interfaces	Belgium: additional CoZo user profiles (midwife, pharmacist in hospital, pharmacist clinical biologist, physiotherapist) now have access to imaging results in PACSonWEB.

Multi-Monitor	FIX: an issue was fixed where the settings in the multi-monitor app configuration wizard were not maintained when running this wizard again.
WCF	The study remark field, communicated through HL7 ORM/ORU, may now contain up to 2048 characters (previously limited to 256 characters).
Reports	FIX: an issue was fixed where speech recognition did not initialize when there are multiple text blocks with the same code.
Reports	Clearer messages to inform patients if the report is not yet available.
Studies	FIX: an issue was fixed where a PDF report would be deleted after changing the report status in the study administration page.
WCF	FIX: the study remark will no longer be deleted when a new HL7 ORU/ORM is sent in without a study remark.
Global	The global data protection policy, privacy policy and cookie policy were updated, to bring them in line with Dedalus global policies.
Image Viewing and Manipulation	FIX: an issue was fixed where scrolling through breast tomosynthesis series was very slow when breast shape detection was enabled.
Local Image Cache	FIX: an issue was fixed where scrolling through multi-frame tomosynthesis

	series had low performance due to unnecessary loading of pixel data.
Image Viewing and Manipulation	FIX: an issue was fixed where mammography images, when retrieved from the local image cache, could be displayed with an incorrect default window/level setting .
Reports	The user notification (popup message) and behavior have been improved when reloading a study during reporting.
Reports	New user settings are introduced to finetune the behavior when finishing a report.
Management	FIX: an issue has been fixed where opening the user settings was very slow.
Login	FIX: an issue has been solved where the customer-specific support page was not accessible anymore from the customer-specific PACSonWEB landing page.
Viewer	FIX: an issue has been fixed where (active directory) users without a last name got error messages when logging into the viewer. Last name is now mandatory for all (AD) users, and clear error messages are presented to the user.
Reports	FIX: Transcriptionist got error when finalizing a report because author was cleared by backend integration.
Reports	New multi-line text fields to register radiation dose and administered

	products are available. These fields can be populated through incoming HL7 ORM/ORU, or filled in / edited manually in the study administration pages. They can also be added to the report print template.
Viewer	FIX: an issue has been resolved where an incorrect patient date of birth could be displayed, when the client was in a different time zone than the web server.
Explore	FIX: an issue has been fixed where the user interface goes blank if a PACS overlay search result contains patients without a name
WCF	PACSonWEB DICOM Modality Worklist (DMWL) will now also return OtherPatientID, when it's queried as part of an MWL request.
Reports	FIX: an issue was fixed where a warning was displayed (Mapping not found) when a transcriptionist validates a report for the default radiologist.
Reports	SpeechMike buttons can now be configured to trigger keyboard shortcut actions. When using the PACSonWEB multi-monitor app, the SpeechMike buttons will continue to work even when the app does not have focus (e.g. while reviewing images in a 3rd party tool).
WCF	When receiving HL7 messages for existing studies without department, site and/or examination room information, this data will no longer be reverted to default values if this data

	was already known from prior messages.
DICOM Processor	If PACSonWEB receives HL7 ORM messages with unknown procedure code/description and/or modality, these values will now be copied from the associated DICOM files.
Reports	A signature image can be uploaded for each user, and included in the report.
Download	FIX: an issue has been fixed where querying the worklist based on patient last name (during Transfer to PACS) did not return the correct results.
Viewer	Certain image series within a study can be marked as private (either manually or automatically), and access to such series can be restricted through user/ role permissions.
Viewer	FIX: an issue has been fixed where annotations created in Syngo.via did not display correctly in PACSonWEB.
Management	Portal URLs will no longer be prefixed with "http://", also in the templates when sharing a study or printing a report.
AI-Cube	AI Cube is a new PACSonWEB component, which connects with cloud-based AI providers. This allows to have studies, which are sent to PACSonWEB, automatically processed by certain AI algorithms, and results are made available back in PACSonWEB.
Global	It is now possible to review and modify cookie settings.

DICOM Processor	DICOM libraries were updated to the latest Fellow Oak DICOM version 5.0
Login	FIX: an issue has been fixed where one-time passwords (OTPs) were being sent unnecessarily to active-directory (AD) users.
Studies	A new upload portal, which allows to upload medical imaging studies (DICOM) to PACSonWEB using the web browser.
DICOM Processor	Support for the LINEAR_EXACT VOI LUT function, for correct rendering of certain MRI series.
Viewer	New filter buttons in the series picker make it easier to find relevant prior studies in the patient history.
Token Based Interfaces	Exams which are filtered (not published to PACSonWEB) will no longer show up in CoZo.

10.1.2 Release notes version 3.3.700 (23/05/2023)

Viewer	FIX: an issue was fixed where images would not be displayed in Safari after upgrading to iOS 16.4
MPR	MPR image quality has been improved, and MPR rendering speed has been increased.
Explore	FIX: an issue was fixed where loading the study list / explore page was very slow (or even timed out) when no filters are applied

DICOM Processor	FIX: an issue was fixed where certain images encoded as a private SOP class UID were not visible in the viewer.
MPR	FIX: an issue has been fixed where cloud icons would be shown for certain images. This happened when MPR was initiated while some images were still loading.
Client Configs	A character set can now be defined, which is used in all queries from PACSonWEB to the local PACS. When the query includes special characters, these will no longer be replaced with wildcards, hence the query results will be more accurate.
Viewer	FIX: Flashing images when scrolling through RX images
Login	The PACSonWEB default login page has been restyled according to the Deep Unity style guide, including an update to the logo.
Explore	FIX: an issue has been fixed where the anomalies department filter did not work for source administrators.
Viewer	FIX: an issue has been fixed where window/levelling high-resolution images on diagnostic displays was unresponsive.
Reports	FIX: an issue has been fixed where RSDK (speech recognition) would not work anymore after reloading a study.

Reports	FIX: Report reviewer dropdown selection not shown correctly in the multi-monitor app.
Viewer	The user will now be notified (and asked to close some study tabs) when exceeding the memory usage of the multi-monitor app.
DICOM Processor	FIX: an issue was fixed where an IOCM rejection note would not be processed for all frames within a multi-frame image.
WCF	C-FIND queries for unsupported SOP classes will now be rejected, instead of not returning any data.
Viewer	FIX: an issue has been fixed where the wrong DICOM tag was used to determine the laterality of multi-frame DBT series.
Login	FIX: an issue has been fixed where the new user account activation with strong authentication (one-time password) via email was not working.
Reports	FIX: An issue has been fixed where text blocks could no longer be inserted automatically in new reports.
Global	User manuals (online and PDF versions) are now available on the PACSonWEB portal itself, instead of a public Confluence page.
Viewer	Scrolling through Digital Breast Tomosynthesis (DBT) image stacks is now smoother, as the breast detection

	algorithm no longer runs by default on each image.
Reports	It is now possible to configure the audio recording input level for non-SpeechMike dictation devices in the multi-monitor app.
Multi-Monitor	For desktop integrations using the multi-monitor app, it is possible to use only patient-level context (patient ID or national number) when calling the app API. The study list will then display a filtered list of all studies for the called patient.
Multi-Monitor	The on-top behavior of the multi-monitor application can now be configured. The new setting will determine whether the non-diagnostic monitor comes on top of other windows
Worklist	FIX: an issue has been fixed where procedures codes would no longer be displayed in the worklist filter settings, after saving the worklist
Viewer	Images (such as mammography images) can now be automatically flipped horizontally or vertically through the reading protocol.
Viewer	ScreenPoint Transpara mammography CAD markers (calcifications, soft tissue lesions, and overall exam score) are now supported for display in the viewer, both for 2D/FFDM and 3D/DBT exams.
Viewer	A new keyboard shortcut was added to publish annotations.

Download	The 'Transfer to PACS' workflow has been significantly improved: it's easier to access the functionality, the user interface has been redesigned and optimized, studies can be transferred in bulk, and default settings can be configured.
Viewer	The default projection mode, when activating the thick slice (2D) function, is now maximum intensity projection (MIP) instead of average intensity projection (MPVR).
Viewer	FIX: an issue has been fixed where a relevant prior study was not automatically shown in an auto-compare reading protocol, in case of multi-procedure reporting.
Multi-Monitor	A native desktop integration with Myrian (Intrasense) is available in the PACSonWEB multi-monitor app.
Viewer	The metric 'time to first image display' has been improved, especially for larger studies with lots of images. Also pre-loading is introduced to further improve this metric.
WCF	When a new patient national number is sent to PACSonWEB through an ADT update, this will no longer trigger an anomaly (as long as that number is unique).
Patients	The displayed message, to inform the patient when their report is not (yet) available, is now more clearly defined to avoid confusion.

MPR	Users will now be notified if there is insufficient memory available to create an MPR volume. Also, the memory required for MPR will be released as soon as the study is closed, to avoid insufficient memory as much as possible.
Multi-Monitor	It is now possible to pass image- or series-level context in an integration script. This allows to share a specific image or series with a 3rd party application integrated in the PACSonWEB multi-monitor app.
PACS Push	FIX: An issue has been fixed where PACSonWEB would continue to try and sync a study (via C-MOVE) when the local PACS stops responding, even when the study is fully synchronized.
Viewer	Multi-value DICOM tags can now be used in the definition of reading protocols. So if a DICOM tags contains multiple values (e.g. ImageType), any of those values can trigger a specific reading protocol.
Manage Templates	FIX: incorrect link to manual in password expiration mails.
Reports	Report signature(s) is/are now automatically added to the exported report (for ORU outbound interface).
Login	FIX: An issue was fixed where the user manual on the French login page was not available as PDF.
Explore	A permission is now available to define which user groups have access to the PACS overlay (query local PACS) feature.

Access	FIX: an issue was fixed where unreported studies were already available to patients when logging in through CoZo

10.1.3 Release notes version 3.3.606 (22/02/2023)

Report	FIX: RSDK speech recognition not working for Spanish (ES_ES)
WCF	FIX: Access not correctly changed when changing requesting physician for multi-procedure order.
WCF	FIX: ORU not correctly processed for DICOM based study with order nr. that also exist for none default department.

10.1.4 Release notes version 3.3.605 (13/02/2023)

DICOM Processor	When images of a merged study were resend with a different accession nr. but that accession nr. doe snot match an HL7 based study. The split of study was not correctly updated with the DICOM meta data.

10.1.5 Release notes version 3.3.604 (15/12/2022)

Hotfix is to solve issues in PACSonWEB backend, hence no end user release note is created.

10.1.6 Release notes version 3.3.603 (14/12/2022)

DICOM Processor	FIX: When two studies are merged on same accession number a study is not split off again if one of the studies is resend same study instance UID and different accession nr.

10.1.7 Release notes version 3.3.602 (23/11/2022)

Viewer	FIX: Radiologist need to restart multi-monitor app after out-off memory error
DICOM Router	FIX: Client Router queue clean-up can be slow for heavy load customers

10.1.8 Release notes version 3.3.601 (04/11/2022)

Reports	FIX: 'copy to clipboard'-button report panel is not working anymore.
Viewer	FIX: Image can not be viewed when using Safari 14 or Firefox 92. (Works fine as of Safari 15 and Firefox 93)
Multi-Monitor	FIX: PACSonWEB multi-monitor app crashes when a StreamDeck is connected
Multi-Monitor	FIX: PACSonWEB viewer turns black in multi-monitor app if 5GB memory usage is exceeded.
Reports	FIX: Transcriptionist gets (non-blocking) access restriction error when editing report.
Reports	FIX: Warning that speech volume for RSDK speech recognition is to high is shown to often.
Viewer	FIX: When using 150% zooming in windows display settings, Window leveling is not always immediately applied on high resolution images.

Viewer	Performance improvement: faster meta-data retrieval, so that we can start loading images sooner after opening a study.

10.1.9 Release notes version 3.3.600 (18/10/2022)

Viewer	Tomographic (CT/MRI) series from two different studies can automatically be synchronized, based on a registration algorithm. Correcting the offset between linked series can be done much faster.
Reports	Reports are now saved automatically, and can be recovered after losing the server connection or accidentally interrupting the reporting workflow.
DICOM Processor	DICOM files larger than 2 GB are now supported.
Explore	More advanced search / filter capabilities are now available in the task progress overview screen.
Studies	FIX: An issue has been fixed where the fetch button was sometimes unavailable for expired studies.
Management	Additional logging on system operator (global admin) activities, to comply with HDS (France) regulations.
Manage Templates	Patient first name and last name can now both be added (as two individual fields) to print templates.
WCF	If the source allows multiple internal patient IDs, 'old' patient IDs will now be remembered after merging to a 'new'

	patient ID. If, after such merge, incoming data (HL7/DICOM) still uses an 'old' patient ID, this will no longer trigger an anomaly.
Reports	The reporting workflow within PACSonWEB now supports multiple report contributors. A radiology resident may send a report to a supervisor, or a senior radiologist sends a report to a colleague for review. Also, different report versions and the version history can now be displayed in the study administration page.
Download	FIX: An issue has been fixed where transfer tasks would sometimes remain in progress without completing.
Worklist	Specific procedures or procedure codes can be excluded from a worklist.
Image Viewing and Manipulation	The image rendering performance has been improved, and interference with simultaneous speech recognition is no longer an issue. IMPORTANT: PACSonWEB 3.3.600 is not backwards compatible with multi-monitor app for 3.3.500! Upgrading to the latest version of the multi-monitor app is required.
Token Based Interfaces	Specific performing departments can now be included/excluded for publication to CoZo/RWS. Publishing of studies to CoZo/RSW can also be delayed for 1 to 7 days.
Management	FIX: An issue has been fixed where multiple duplicate rooms or departments are be displayed in the worklist filters.

Viewer	The readability of the series descriptions in the series picker has been improved.
Login	In Norway, Target365 is now supported as SMS gateway provider.
Explore	The "Performing department" field can now be used as a filter and displayed as a column in the study list tab.
User Settings	Keyboard shortcuts are now available for all annotations.
Reports	There is a new user setting to define if a beep should be played when starting or stopping speech recognition. Also, the report panel will now automatically scroll down when dictating a large amount of text.
Reports	In the study list, the 'Radiologist' field now shows the name of the doctor who last changed or validated the report in PACSonWEB. Also, the 'Reading user' and 'Validating user' fields will be populated for reports sent to PACSonWEB.
Download	Studies - which are added manually to the study list - can automatically be listed and selected. Any reference number or POW number can be used to filter the study list.
WCF	An external procedure ID on study level is now supported, so that exported reports combining multiple procedures can be associated with different unique study level IDs.
Access	FIX: An issue has been fixed where original requesting physicians may still

	has access to a study when requesting physician for that study is changed.
Studies	FIX: An issue has been fixed where anomalies could not be resolved because of different date/time formatting.
Reports	When dictating a report, the recording volume level is now visualized with colors in the report panel. If the recording level is too high, the user will be alerted and advised to change their audio settings.
Reports	Reports exported as DICOM structured reports (DICOM SR) now contain all the required metadata to allow import in other PACS systems.
Share	A label can now be automatically attached to one or more studies, when sharing them, or printing a reference number for them.
Studies	FIX: An issue has been fixed where there are redundant entries in the patient logging for unchanged values.
Reports	To avoid losing unsaved report text, a popup confirmation will now be presented to the user when closing the browser (tab) or navigating to a different web page (user settings, study administration) while editing a report.
Reports	When using speech recognition, additional guidelines are provided on how to dictate numbers, dates and times, medical terms, and more.

Studies	FIX: An issue has been fixed where moving images from one study to another would sometimes fail.
Studies	FIX: Error in study administration tab 'images and series' if moving images to a new series in exiting study and moving that newly created series to another study in one go.
Reports	Block undesired translation of report text by the browser plug-ins.
WCF	When report creation (and dictation) is started in PACSonWEB, a study status update ('Dictation started') can be sent out via HL7 ORU. This allows to inform external (RIS/reporting) systems that reporting has started, and avoid double reporting in another system.
Login	When printing a reference number, a QR code can be included. Scan the QR code to go directly to the correct URL, with the reference number already filled in.
Global	The TeamViewer application that can be downloaded from the support page has been upgraded.
Login	FIX: An issue has been fixed where active directory users that login via itsme are sometimes asked to reset their password.
Image Viewing and Manipulation	FIX: An issue with irregular scrolling through CT image series has been fixed.

Reports	FIX: An issue has been fixed where 'null' was displayed as radiologist name when exporting a report.
Image Viewing and Manipulation	The default scrolling method for 2D reformats (e.g. MIP) is now 'Not Grouped'.
Explore	FIX: An issue has been fixed where the number of images in the Local Image Cache was displayed incorrectly in the study list after sorting the list by clicking the headers.
Worklist	The worklist refresh rate can now be configured (default = every 5 minutes).
Worklist	The performance of worklist queries has been improved.
Viewer	FIX: An issue has been fixed where false 'study changed' notifications was shown for unchanged studies.
User Settings	FIX: An issue has been fixed where opening the user settings could take allot of time.
MPR	FIX: An issue has been fixed where the MPR screen layout changed unnecessarily.
Download	Exported annotations (angle, arrow) now also provide fall back representation for external PACS system that do not support Compound Graphic Sequence.
WCF	FIX: An issue has been fixed where ISO_IR 100 character set was used

	instead of requested encoding in Modality Worklist response.
MPR	FIX: An issue has been fixed where coronal and sagittal MPR views could be displayed upside-down when image number do not match orientation.
WCF	The performance of processing large (> 1 GB) files has been improved.
Global	Support for the Brazilian Portuguese language.
Global	When PACSonWEB is not to be used for diagnostic use in a certain country because of pending regulatory requirement, several notifications about this restriction are added in the user interface.
WCF	FIX: An issue has been fixed where availability of incoming images were available in PACSonWEB can be delayed by parallel C-Move requests.
Reports	FIX: An issue has been fixed where SpeechMike buttons stop responding.
Image Viewing and Manipulation	FIX: An issue has been fixed where XA/RF images containing a redundant VOI LUT table were display incorrectly.
PACS Push	FIX: An issue has been fixed where whitelisted studies would not get retrieved from PACS.

10.1.10 Release notes version 3.3.503 (13/07/2022)

Viewer	FIX: Improve performance for rendering multi-frame with embedded overlay.
DICOM Router	FIX: Avoid degrading performance in uploading DICOM images by reducing memory usage to and .NET garbage collection.
WCF	FIX: Annotations on multi-frame are not correctly send out.
Viewer	FIX: Performance improvement in image retrieval by reducing number intermediate images rendered during zooming.
Viewer	Exclude canceled studies from auto compare.
Reports	FIX: Use ORU configuration of author/ approver when transcriptionist approves on behalf of
Global	Add swiss representative in about box for swiss environments
Download	FIX: Downloads of multi-frame results in invalid ZIP file

10.1.11 Release notes version 3.3.502 (14/06/2022)

Share	Users linked to an admin group cannot use the share functionality anymore
Studies - study administration	Not possible for a source admin to edit the patient data in study administration

Token based interfaces - Cozo	It is impossible to open images using Cozo with Internet Explorer 11. Using login physician or patient has no issues.

10.1.12 Release Notes Version 3.3.501 (13/06/2022)

Only fix in backend processing => no public release note required

10.1.13 Release notes version 3.3.500 (14/06/2022)

Global	In case of opt-in, we'll collect anonymous usage information to further improve the application based on real life information
DICOM Processor	IOCM inbound support:* 1113037 (Patient Safety) and 1113038 (Incorrect Entry) -> persistent delete* 1113039 (Date Retention) -> purge until resend
Studies	Filter on performing department in anomalies overview
Viewer	Notify if new images arrived on open study (if activated for source)
Image Viewing and Manipulation	New annotation: Polygon ROI density tool
User Settings	FIX: Auto compare menu in user settings is now correctly displayed
DICOM Router	FIX: respect requested character set in CFind Response
Explore	Improve usability of labels* define favorites* Label/un-label studies in a list

Users	User can define his own window level presets in addition to the source defaults
WCF	Use files in local image cache for C-Move response
Reports	Receive notification as requesting/CC physician when report is available and/or when images are available
MPR	MPR can be reset using a keyboard shortcut
MPR	Usability improvements for MPR:* tri-plane view* rotate cross hair or individual axis* cycle views* easy reset
Viewer	ESC restores the default left mouse button operation
User Settings	Users can customize their keyboard shortcuts
Viewer	Images available in Local Image Cache are also visualised in order information viewport
Worklist	Filter on minimal number of images in the worklist
Image Viewing and Manipulation	Standard Deviation added as value for ROI annotation
Reports	Report consisting of only empty lines and/or whitespaces is handled as an empty report
Image Viewing and Manipulation	FIX: Endpoints behave correctly while drawing ROI ellipse

Reports	FIX: Rich text editor can be used on Safari browser
WCF	WCF client accepts DICOM Files without StudyTime, setting it to 00:00:00
Multi-Monitor	Notification in multi monitor app if the update link is not accessible.
Global	FIX: correction in German mail templates
User Settings	Apply increased report font in text block editor
Reports	RSDK improvement:* Switch Language* Modify playback volume* Performance logging
Viewer	Possibility to delete DICOM encapsulated PDF document in the study administration
Image Viewing and Manipulation	Save presentation state for rotated or flipped images
Viewer	Maintain scroll position and image manipulation when series is shown in multiple steps in the reading protocol
Multi-Monitor	Option to hide/show title bar on study tabs monitor to have same image proportions in case of a RIS driven workflow
Viewer	Allow copying of values from study info viewport fields

Viewer	For users with setting "multiple tabs" configured, open study in series picker will open an new study tab.
Reports	Setting to give user reporting permission for a department without being a source administrator
Viewer	Shortcut for ROI – ellipse (E)
Reports	Additional report formatting:* Bullet list* Header styles (configurable per user)* Voice commands for formatting
Login	OTP via mail can be resent via mail or sms
Download	Export the following annotations as GSPS:Ruler , Line, Angle, ROI- rectangle, RIO –elpise, Arrow, Text
Explore	FIX: Study information no longer hidden after the user gains access using Break-The-Glass
WCF	Patient level CFind queries to PACSonWEB now supports wildcards (* and ?) for all supported fields
WCF	Multiple instances, series, studies can now be moved in a single C-Move request
Worklist	FIX: Worklist can now be sorted on report
Reports	FIX: Selecting a word by double click now also works in IE11

Reports	FIX: user can now create and validate report with home reading in case RSDK is also configured
Reports	FIX: Microphone access no longer requested for transcriptionist
Viewer	FIX: Series linking for curved planner reconstructions (CPR vs. MPR) is now done correctly
Reports	Possibility to allow a transcriptionist to validate a report on behalf of the radiologist
Share	FIX: Custom template is now used when printing reference number from PACS overlay
Worklist	FIX: Column images in worklist now displays the number of images available in the Local Image Cache
Viewer	FIX: Correction for scrolling behaviour when switching viewports in multi-monitor app
Login	Block login with POW code only having canceled studies instead of showing empty list
Studies	FIX: Give correct error message when adding an invalid national number in the study administration
Explore	FIX: Use search string of 4 characters, including Include special characters in PACS overlay
Image Viewing and Manipulation	Length ratio: inverse ratio now additionaly shown between brackets

Viewer	FIX: Rapid switching between tabs while study is loading causes series picker to load incompletely
Viewer	FIX: Scroll performance remains optimal when viewer is kept open for a long time
Token Based Interfaces	FIX: solved issue for access by patient using RSW
Worklist	Possibility to filter on unresolved anomalies in the worklist
Viewer	Tolerance on differences in orientation for automatic linking increased to 15°
Reports	Optimization for latency warning when using RSDK
Reports	Reduce space between report body and signature
Studies	FIX: Source rules now also applied to tags that occur in a DICOM sequence
Reports	FIX: RSDK – Speech session for long reports remain open until audio is saved
Reports	FIX: Text blocks are no longer added with wrong language identifier that made them usable with RSDK
Viewer	Disable switching procedures via tabs in series picker if there is an unsaved report to avoid losing report content
Viewer	Allow to disable pointer lock for a (VDI) user

10.1.14 Release notes version 3.3.405 (18/03/2022)

Reports	FIX: When using RSDK, saving audio "never finishes" for large reports.
WCF	FIX: WCF clients go to 100% CPU when trying to recover from lost connections.

10.1.15 Release notes version 3.3.404 (04/03/2022)

Reports	Allow using shortcut to save report also if report viewport doe snot have focus. Avoid loosing report when turning on shortcuts for external reporting in set-up for which it's not intended.
Reports	FIX: space inserted in front of '.' when suing RSDK speech recognition
Reports	FIX: Can't save report created with Home reading is RSDK speech recognition is also configured for user.
Reports	FIX: Shortcut to save a report (F8, Ctrl-F8) only work when report has focus
Study administration	Add anomaly for studies were moving large studies fails after user already left the study administration.
Local Image Cache	Make user Local image cache clean-up continues if some files it's attempting to clean-up are removed already.
WCF	MWL - return a value for Code Meaning (0008,0104)
Worklist	FIX: AD user with group mappings fails to access worklist.

10.1.16 Release notes version 3.3.403 (04/02/2022)

Reports	RSDK speech recognition: performance improvements
Reports	RSDK speech recognition - FIX: Edit report keeps loading when study is opened from open study button in series picker
Reports	RSDK speech recognition - FIX: Words are added in the wrong order with RSDK speech
Reports	RSDK speech recognition - FIX: Speech recognition stops recording
Reports	RSDK speech recognition - FIX: After insert text block with voice command cursor is on start of report
Reports	FIX: Transcription user in admin group does not have the send for approval option.
Reports	RSDK speech recognition - FIX: Text segments with audio, but no text in the beginning of the report are not played backed
Reports	RSDK speech recognition - FIX: Database fields in text blocks are not replaced when inserted with RSDK voice command
Reports	RSDK speech recognition - FIX:RSDK speech recognition - FIX: Transcription workflow: Speech audio is played but without sound

Reports	RSDK speech recognition - FIX: deleted text reappears when saving a report
Viewer	FIX: Consolidated Patient history - reports from other sources not accessible
DICOM Processor	FIX: ImageExchange - Daily studies for which the images were not downloaded, status completed, progress 0%
Worklist	Improved performance when searching on PatientId in the worklist
Viewer	FIX: Disappearing mouse pointer in multi-monitor app
WCF	MWL: Ignore empty study date in MWL query to fallback to scheduled procedures step date
WCF	MWL: Add Schedules AE, Protocol code and Type of patient ID to MWL response
Access	Don't allow none-administrator to access studies canceled in the RIS
Study administration	Allow to modify canceled flag (set via RIS integration) in the study administration.

10.1.17 Release notes version 3.3.402 (05/01/2022)

WCF	FIX: Pixel data for some images in large series lost when processing of the image is interrupted by a timeout.

WCF	FIX: Performance of incoming images negatively impacted by DICOM source rules

10.1.18 Release notes version 3.3.401 (14/12/2021)

Viewer	FIX: Images with negative pixel spacing not visible because of error in scale ruler calculation
Reporting	Performance improvement in loading Recognosco speech recognition
ADT	FIX: Correction in handling ADT messages for sources where multiple internal patient ID's are allowed for same national number.
Management	FIX: Password expiration mail also send to AD user

10.1.19 Release notes version 3.3.400 (30/11/2021)

Login	Improved password expiration mail
Image Viewing and Manipulation	Improve auto selection when placing spine labels
Studies	Select multiple instances to move to another study
Multi-Monitor	Client side desktop integration with multi-monitor app
Reports	Correction workflow with audio playback, based on Recognosco speech recognition

DICOM Processor	Don't send mails or SMS for migrated studies
Viewer	FIX: Mouse cursor no longer disappears when doing image manipulations
Image Viewing and Manipulation	Scale ruler added to viewer
MPR	FIX: MPR creation from Local image cache
Local Image Cache	FIX: Local image cache accepts studies with empty accession number
Reports	Automatically add text as template in report
Viewer	Allow to define keyboard shortcuts for external reporting flow
Reports	Integration Recognosco speech recognition (finalization)
Home Reading App	Text blocks can be used in combination with Home reading (phone based speech recognition)
Reports	Support pdf report in the order details tab of the patient history
Viewer	Clear indication for prior studies that are more recent than current study
Download	FIX: Study instance EUID adapted correctly when downloading DICOM
Viewer	FIX: cut-off of the bottom pixels of the viewer in iOS Safari solved
Reports	FIX: text block pop-up now showing on Safari and older Edge versions

Image Viewing and Manipulation	FIX: Window level support for IE11
WCF	FIX: Modality Worklist - Characters before '_' no longer removed from Procedure Code
Management	More intuitive UI for labels in viewer
Reports	Improved robustness of ORU outbound communication
WCF	FIX: C-FIND PATIENT level query needs to be on PATIENT root instead of STUDY root
DICOM Processor	FIX: Viewing and downloading of encapsulated PDF document with empty file name tag
Reports	FIX: Copy of report signature when using copy to clipboard function
Studies	FIX: Resend SMS in Study Administration when source setting "Send SMS on first image" is disabled (Norway)
Worklist	Worklist dashboard moved to worklist tab header when in full screen mode
Image Viewing and Manipulation	Improved usability for Window Level on images with 15 or 16 bit grayscale
Viewer	Loop the RP steps when navigating with shortcut keys * Page-Down on last step --> first step * Page-up on first step --> last step
Image Viewing and Manipulation	Add delta with 180° to angle measurement

Image Viewing and Manipulation	FIX: Use middle mouse button to Window Level on MPR
Multi-Monitor	Add links to open report or order from PACSonWEB in RISonWEB (configuration by Dobco)
WCF	FIX: C-MOVE requests no longer fails if the destination cannot process JPEG Lossless
WCF	FIX: Set access when sending known physician without physician number if received through HL7

10.1.20 Release notes version 3.3.303 (14/10/2021)

Viewer	FIX: Check on patient consent in eHealth for consolidated patient history always fails.
Login	Extra check to block login in case duplicated reference numbers were send by third party system.
Viewer	FIX: List of reading protocols is not always refreshed when logging in with other user. (cached list from previous user is used)
Download	FIX: Auto transfer not working in German environment

10.1.21 Release notes version 3.3.302 (09/09/2021)

Studies	FIX: Study Administration - Impossible to update order information

Viewer	FIX: Performance impact of backfilling extracting an storing extra DICOM tags in the DB on the fly.
Reports	FIX: ORU Out - User with the default mapping always gets the warning 'Mapping not found' (report correctly exported)
Reports	FIX: Speech recognition does not work if a report is in edit mode in other tab
WCF	FIX: Q/R interface C-MOVE intermediate status updates are not send resulting in some clients aborting association
Reports	FIX: Study Administration - Resend report throws error for user that does not have home reading configured
Login	FIX: EMR gateway with anonymous login does not show report

10.1.22 Release notes version 3.3.301 (31/08/2021)

Studies	FIX: Study anomaly: A different date of birth create for images without DOB processed by DICOM Processor directly (not via WCF)
Login	FIX: Some irrelevant field are shown on the support page if Login screen \disableRequestUsername=true
DICOM Processor	FIX: Merge study fails in Stored Procedure
WCF	FIX: PACSonWEB always uses SpecificCharacterSet ISO_IR 192 in MWL

	response, which is not supported by all modalities

10.1.23 Release notes version 3.3.300 (27/08/2021)

Project Plan	Release note
Reports	Multi-procedure reporting
Reports	Insert saved text blocks in a report
Studies	Support accession number with multiple study instance UID's in download/transfer
WCF	C-MOVE from PACSonWEB to PACS moves all images in one association
WCF	Canceled studies ("study_state": "CA") are not returned in the MWL response
WCF	Procedures received via HL7 are no longer overwritten by DICOM study description
Explore	No anomalies are created for studies that are filtered, based on DICOM tags
Viewer	DICOM encapsulated pdf's (SOP class 1.2.840.10008.5.1.4.1.1.104.1) are shown in the document viewport
Worklist	Worklist dashboard: count of key worklist items in view at all times
Viewer	"Show original DICOM tags" available to source administrator users

Studies	Additional warnings for archive / PACS customers when deleting a study / images
DICOM Processor	Images without patient name and/or patient ID are accepted but create an anomaly
Study list	Performance improvement for filtering on unread messages in study list
Viewer	FIX: Studies with same frame of reference are now auto linked if orientation slightly deviates (0,1° tolerance added)
Viewer	Improve styling for narrow series picker
MPR	FIX: In MPR cached images are now re-rendered when window level is changed
Worklist	Additional bulk reporting workflow options * Report a selection of studies * Skip * Open report in edit mode * First open other unreported form same order
Studies	Improve performance of access logging tab in study administration
Manage Templates	Possibility to switch order of first name and last name in mail templates
Viewer	Use of arrow keys to scroll through multi-slice series
Worklist	Possibility to filter a worklist on procedure code or description
User Settings	New user setting to automatically publish annotations

Viewer	Extended order details panel * Performing department * Requesting department * Prescription date * Visit information * Patient & * Study remark
Viewer	Show acquisition date and time in image overlay
Studies	FIX: Study administration - Patient information can now be modified when first name is empty
Management	HDS requirement: extended logging on all admin actions by Dobco personnel
Reports	FIX: download button for pdf reports now available for all resolutions
DICOM Router	FIX: DICOM Router now respects "PreferredTransferSyntax" when sending images to a destination via C-MOVE requests
Worklist	Default reservation time made customizable per source
Viewer	FIX: Series picker tooltips stay visible on image viewport
Access	Consolidated patient history for hospital users
Explorer	Clicking a filter label in study list and worklist filter allows to enter/change the filter value
Studies	Refresh anomaly list after solving an anomaly with an action that changes data

Viewer	FIX: User can now remove self-created private labels
Login	Mobile number no longer mandatory for AD users in account completion form
Viewer	Patient history tab added to the order details panel for fast navigation through prior reports
Share	FIX: Auto transfer of study's now also works for CC2 physician if no CC1 is present
Share	FIX: flag now changes automatically when changing the country code from the phone number when sharing a study
Reports	Date & time for report availability changed to "dd/MM/yyyy HH:mm" format to avoid translation issue with months and weekdays.
Viewer	FIX:POW no longer freezes when FPS in cine loop is set to 0
Viewer	Option to show relevant priors in the series picker in a separate block or chronologically in "Others"
Explore	FIX: PACS overlay now parses StudyTime that contain fractions correctly
Viewer	FIX: Comparing from patient history bar now also works when series picker is hidden

Worklist	FIX: Multi-select worklist filter value no longer disappears when deleting/ saving/modifying worklist
WCF	Support patient level C-FIND
Reports	Beta version of Recognosco speech recognition integration. (for early feedback only!)
DICOM Router	* Source administrators can define DICOM based rules to automatically send images to CvKO (Belgium) * Anomaly creation if routed studies do not meet CvKO requirements
Login	* Fix for OTP method selection page in Multi-monitor for AD users * Fix 'Remember OTP 30 days' when asking OTP for AD users outside trusted IP range
Reports	FIX: text from browser speech recognition now always inserted at correct position after image manipulation
Worklist	FIX: order with a canceled procedure can now be opened from the worklist
Reports	Selected font size in report window is remembered
Local Image Cache	FIX: Local Image Cache now re-renders when a DICOM file with the already existing SOPInstanceUID is received
Worklist	Possibility to give permission to modify priority to non-source admins

Explore	FIX: Saved "Today" filter now updates as expected
Worklist	Additional worklist filters: "report author" & "report edit date"
Reports	FIX: corrected use of "Page Up" when editing a report
WCF	FIX: Duplicate national number anomaly now also created when national number is sent via DICOM
Local Image Cache	FIX: Corrected pre-rendering of images in Local image cache
WCF	FIX: DICOM Compliance Modality Worklist result - SpecificCharacterSet DICOM tag now on the root level
Viewer	FIX: Image no longer blurry after image rotation
Worklist	FIX: Labels from other sources are visible in worklist
Reports	FIX: PACSonWEB page no longer jumps after editing preliminary report with browser recognition
WCF	Modality Worklist - Procedure code in response * (0032,1064) SQ Requested Procedure Code Sequence\(0008,0100) CodeValue * (0040,0100) SQ Scheduled Procedure Step Sequence\(0040,0008) SQ Scheduled Protocol Code Sequence \(0008,0100) CodeValue
Worklist	Improvements in worklist performance, especially for empty worklists

| Local Image Cache | Performance improvement in Local image cache clean-up |

10.1.24 Release notes version 3.3.200 (30/04/2021)

Module	Release note
Reports	Basic formatting and Speech recognition with local microphone
Viewer	Study/order details panel
Explore	Filter on custom date range in study list
WCF	Use default 19000101 as default date when no date of birth is passed
Viewer	Save report and got to next in worklist
WCF	Don't fail CMove if there are no images for a study, succeed with 0 images moved
Studies	FIX: Time stamps in study logging are now consistently formatted in 24H notation
DICOM Processor	Log timing of image processing in study log
DICOM Router	unknown AE title association errors are now logged as an error
WCF	Federated query: CMove respects order of sources in affinity domain
Viewer	FIX: 'Show my reference number' is available in portrait mode on mobile

WCF	WCF client only logs fatal errors are to windows event log
Viewer	Consolidate patient history - for hospital users only
Viewer	Reading protocols - choose favorite for procedure
Viewer	Default operation on left/middle mouse button configurable per modality
Local Image Cache	Local image cache improvement: * MPR on local images * FIFO clean-up based on disk space threshold
Image Viewing and Manipulation	Show Left/right indication in CT and MR view ports
Viewer	iCAD integration
DICOM Router	Clean-up temporary files from conversions (in case of process interruption)
RSW	RSW - Allow to configure a different responsible radiologist for each department
Local image cache	Series splitting consistent for local and online studies
Worklist	Reporting worklists: Filter on status, assigned radiologist, performing department, room, ...
Explore	FIX: Adding bucket fails because of Customer Ref Code validator

Download	FIX: ConceptNameCodeSequence is now under the ContentSequence in SR for PACSonWEB report
Share	FIX: Print reference number: copy this information button doesn't work
WCF	FIX: C-FIND Endpoint - Patient Name is separated by '^' (=^+ space) instead of '^'
Access	FIX: can't grant (via share) read&write access to a user already having read access
DICOM Router	FIX: Use # as field separator in file names instead co '-' to avoid issue with '-' in AE titles
Viewer	Simplification of extended series picker. * Less different blocks * prior study stays in chorological order when compared * two levels of relevance
Image Viewing and Manipulation	Spine labeling panel
Viewer	Shortcuts to open other systems via URL in PACSonWEB
Viewer	keyboard shortcuts for cine, Density measurement, spatial locator
Viewer	Performance of loading first image from series file on object storage
WCF	Improved logging of patient creation and updates
Image Viewing and Manipulation	Text annotation
Viewer	FIX: Size of series picker is not remembered when switching exam

Multi-Monitor	Setting to leave Syngo.via in control of it's monitor layout.
Multi-Monitor	Support PACSonWEB app for user profiles on network drive
Login	FIX: external authentication app as second factor needs to be set twice before it's active in user settings
Viewer	Age at acquisition is available (between brackets behind the date of birth) in the demographic overlay
Viewer	Old viewer was removed from PACSonWEB
Studies	move images and series: extra search criteria
Studies	move images and series: improved progress indication
Studies	FIX: SIP-3311 Study administration: manage series and images broken after reverting changes
Studies	FIX: Select button not visible in study administration (study move)
Studies	FIX: Study administration: Negative image count when move images to series that has deleted images
Login	Allow UPOW codes for canceled procedures in multi-procedure order
Image Viewing and Manipulation	Some improvements in interacting with annotations were done * Cobb angle: Always measure inner angle * Angle: Set

	Leg-corner-leg instead of corner, leg 1, leg2 * Don't select annotation while drawing a new one, to allow measuring * distance between other annotations * Always return to none-annotation function after drawing annotation (instead of returning to other annotation) * Avoid overlap between labels * Pan icon was replaced by arrow, to ease selection
Viewer	FIX: Tooltip outside page with right side series picker
Viewer	FIX: One-up only works if pan tool is active
Image Viewing and Manipulation	Indicate if ruler annotation is vertical
Multi-Monitor	Make it possible to disable local image cache for a multimonitor setup
Share	Configurable mail subject for image availability mails
WCF	FIX: When changing Requesting Physician to an Unmapped Physician, old access record is not removed
Viewer	FIX: Printing an image on one page independent of aspect ratio
Login	Improved implementation of "remember this browser for 30 days"
Multi-Monitor	FIX: Master window in multi-monitor sometimes flickers when getting/losing focus
MWL	FIX: Use ',' instead '^' as name part separator

Share	FIX: Share study without accession nr. from PACS overlay
Multi-Monitor	FIX: QUOTA_EXCEEDED error for in multi-monitor app with German translation
DICOM Processor	Trigger anomaly for merged studies of different patients

10.1.25 Release notes version 3.3.111 (01/03/2021)

Module	Release note
MPR	FIX: If slices have negative coordinates on an axis (e.g. x axis for sagittal) the slices are sorted in incorrect order to construct the volume with the result that the volume and the slices generated from it are flipped.

10.1.26 Release notes version 3.3.110 (29/01/2021)

Module	Release note
Token Based Interfaces	Show RSW status and resend in study administration
Multi-Monitor	Allow to split wide monitor in two 'virtual' monitors
Annotations	Length loss and length ratio annotation
Access	Show to patient when report becomes available
Viewer	Activate scroll function via context menu

Viewer	Allow to restrict auto-compare option to certain modality types
Share	Allow to show list of procedures in custom print reference number template
Viewer	Button to reload study
Viewer	Allow to scroll 1 series using multiple monitors
Viewer	Allow to activate scroll function using StreamDeck
WCF	Don't overwrite procedure, received via HL7, by DICOM study description
WCF	Don't return studies without images in CFind result
Login	Update cookie policy
Viewer	Avoid double fetch operation by disabling button after click
Viewer	Improved CT loading performance
Viewer	Allow auto-compare with studies from the same order
Studies	Provide an indication in the anomalies overview if an anomaly is blocking access or is just informational
Token Based Interfaces	RSW - Support different HCParty department types
Viewer	Monitoring of study loading time

Viewer	When tiling 'all series', apply window leveling only to images of the same series
Login	Add "Imprint" information to the login page
Image Viewing and Manipulation	Improvements breast border detection
Viewer	Add documents to a study by "Drag and drop" in the documents viewport Allowed file types: pdf, png, tif, rtf, jpeg, jpg and txt
WCF	FIX: Anomaly - "Different national number from HL7" not mentioning previous national number
WCF	FIX: C-FIND Endpoint - 'Modalities In Study' tag does not correctly return multiple values
WCF	FIX: C-FIND Endpoint - 'Modalities in Study' parameter doesn't work
Viewer	FIX: When printing an image, the overlay data is not shown
Viewer	FIX: Real Time PNG generation in the UI project always creates grayscale images
Download	FIX: Report visible, independent of source settings, when downloading study
Viewer	FIX: breast border does not update with multiple images in 1 viewport
Explore	FIX: sorting on column 'study status' doesn't work anymore

10.1.27 Release notes version 3.3.100 (07/11/2020)

Module	Release note
Explore	Allow to open explore page via URL integration
Viewer	Allow to send an image or pdf documents as part of ORM
Viewer	Shortcut keys for the viewer can be customized (by Dobco)
Studies	Move study content to other study (fix-up)
Local Image Cache	Local image cache in case PACSonWEB is set up as a PACS
Client Configs	Allow WCF client tot handle HL7 messages for multiple sources
Viewer	Improved CT scrolling performance
Groups	Clear message that you can not remove yourself form a group while being primary contact
Token Based Interfaces	RSW - Publish studies based on LastModificationDateTime instead of StudyDateTime
MPR	Improved MPR scrolling performance
Login	Password reset mail on second user request for registered physician ID
WCF	Support open date and time ranges in C-Find

Login	Extend default session timeout in PACSonWEB
Studies	Automatically clear anomalies when patient merge is done/received
Login	Allow to return to log-in page from OTP page
Share	Notification that two factor does not apply in case a study is shared with a medical department
Viewer	Allow to fetch images for HL7 filtered studies
Viewer	Show all linked labels for study in study administration
Login	Adapt user manual URLs in mails to https to avoid triggering SPAM filters
Reports	Link to new viewer if PDF report is shown in the old viewer
Login	Added option to resend pin code
Studies	Added info on how to deactivate "Mail on new study" in mail template
DICOM Processor	Update of StudyInstanceUID for studies processed by migration flow (not via WCF client)
Multi-Monitor	Download multi-monitor installer from portal with automated upgrade mechanism
Client Configs	Support multiple Transfer destinations on WCF client

Login	OTP setting "Remember this device for 30 days" not reset when IP changes
Explore	Expired studies without a report remain visible in explore page to allow fetch
Viewer	Delete single images or series from a study or move to another study (split/ merge)
Multi-Monitor	Support Stream Deck keypad in multi-monitor app
Login	Add Responsible Disclosure policy to the login page
Global	Text next to TeamViewer button "Only start when in technical support"
WCF	Extra tags can be included in CFind for PACS synchronization
Viewer	Additional user preferences for the viewer
Viewer	Fetch based on accession number (in case Study Instance UID is unknown)
WCF	HL7 - Update Performing Department and requesting department via ORM
DICOM Processor	Link images to source Modality when sent directly to PACSonWEB
Token Based Interfaces	Use TLS 2.0 for COZO communication
Viewer	More prominent fetch images button
Viewer	Improvement in key images functionality (e.g. Option "show in original series")

WCF	Update national number on an ADT merge message
Explore	Explore list available in multi monitor application and in separate tab in viewer.
PACS Push	Add support for StudyQueue based synchronization in WCF3
Explore	PACSonWEB UI optimized for mobile phone
Login	Add "Resend OTP"-option in activation screen
Login	Unlock user account when logging in with eID
Reports	FIX: QR Codes in templates are not printed in IE Explorer and Edge
Token Based Interfaces	FIX: EMR gateway cannot open study by accession number for user linked to multiple repositories
PACS Push	FIX: Sync - Study is moved again if study description contains special characters
Viewer	Clear warning on unsupported or suboptimal browsers
Viewer	FIX: CT presets don't work CT series in case of drag & drop
Viewer	FIX: New viewer doesn't work in IE11 if DOM Local Storage is disabled
WCF	FIX: Series level C-FIND returns Study Procedure instead of SeriesDescription

Reports	FIX: Report text cannot be selected in the new viewer
PACS Push	FIX: Sync - Automatic synchronization fails for studies with an empty accession number
Download	FIX: When retention of PNG images has expired the option to download as PNG no longer functions
Viewer	FIX: Compare does not work when series picker is not shown
Viewer	FIX: Difference in fps and demanded framerate
Share	FIX: Print reference number - language not passed to confirmation dialog
Viewer	FIX: Some MR series open with highest image number
DICOM Router	FIX: Dicom Router doesn't accept associations from Osirix 11.0.4
Reports	FIX: Slovenian special characters not displayed correctly in report
WCF	FIX: Maximum retry count for Storage commit
DICOM Processor	FIX: Studies without accession number and study date are not processed
Reports	FIX: Report signature isn't copied when clicking "Copy Report" in the new viewer
Download	FIX: Anonymization fails when client is not connected to server

Login	FIX: 'Check password' symbol (eye) not visible when password is filled-in by chrome
Explore	FIX: Viewer preferences not applied for users that are logged in via EMR gateway
WCF	FIX: CFind on PatientID too slow
WCF	FIX: CFind to POW Gateway returns '?' instead of special characters
Login	FIX: URL for Local import page is invalid when the patient name contains a point (.)

10.1.28 Release notes version 3.3.0 (19/06/2020)

Module	Release note	New viewer only
Access	Delayed report availability can be based on report date passed via ORU	
DICOM Processor	Allow to send patient SMS from study administration even if automatic SMS are turned off (Norway workflow)	
DICOM Processor	FIX: Don't send SMS to patient when a study is marked as 'BlockPatientAccess'	
DICOM Processor	Add support for MS Azure blob storage	

DICOM Router	**MWL provided by PACSonWEB, based on orders sent by ORM**	
DICOM Router	**Support DICOM tag sequence in transformer and filter scripts in DICOM router**	
DICOM Router	**Check patient consent in eHealth for federated query (Belgium)**	
DICOM Router	Support 0002 tags in file name and scripts in DICOM Router	
DICOM Router	Allow WCF client to do C-Find, C-Move to other sources	
Download	Fix: Also send none-image instances to PACS when using autotransfer	
Download	Added field to DICOM SR for reports created in PACSonWEB to make it DICOM standard compliant	
Download	Add status fields to DICOM SR for reports created in PACSonWEB	
Explore	Show national number in PACS overlay (if PACS supports 0010:1000 Other Patient ID's)	

Explore	**Add labels to study in study administration.**	
Explore	**Redesign of PACSonWEB explore page**	
Global	Switch between PACSonWEB environments after log-in.	
Global	Add German environment to environment list	
Home Reading App	Improve behavior of Home reading PACSonWEB app in case of network interruption	
Annotations	FIX: annotations on multi-frame linked to correct frame	
Annotations	FIX: Density measurement doesn't use the DICOM Tag 'Modality sequence LUT'	
Annotations	FIX: No density calculation for ROI drawn at the border of the image.	
Annotations	Arrow annotation	
MG	**Invert or window level breast area only**	*
MG	Mammography reading protocols	*

Login	Open PACS overly via EMR gateway	
Login	FIX: notifications PACSonWEB app on androïd no longer work	
Login	FIX: error when DA user creation when default properties are configured	
Login	FIX: restrict uniqueness check for reference number to own source when using source portal	
Login	Add link to resend One-Time Password in OTP page	
Login	Redesign of PACSonWEB login page	
Login	Show partial phone number or email address in OTP page	
Login	FIX: Authenticator App - The OTP field for adding a new device skips characters if the users types too fast	
Multi-Monitor	**New PACSonWEB viewer with reading protocols and compare (not active by default)**	*
Multi-Monitor	Integration between multi-monitor	*

	PACSonWEB and local Syngo.via for 3D	
Multi-Monitor	Reading protocols	*
Multi-Monitor	RISonWEB desktop integration with multi-monitor PACSonWEB	*
Archive	**Handle storage commit request for archive customers**	
Reports	Log report creation and modifications in study logging in study administration	
Share	Allow to share when logged in with AD user via EMR gateway	
Share	Address details for medical departments in share dialog	
Share	FIX: source logo not used for confirmation mail when study was opened form share email	
Share	FIX: no warning in case of correctly formatted but none-existing dates. E.g. 29/02/2021.	
COZO/RSW	**Don't show user agreement or tutorial pop-up when opening PACSonWEB form COZO or RSW.**	

RSW	FIX: RSW - GetTransactionDetails denied when order of hcparty of the author is not correct	
COZO	FIX: CoZo - TransactionList response not fully compliant with CoZo Cookbook	
COZO	Monitoring on performance and failures of COZO requests	
RSW	FIX: Adjust method for sending requesting physician to RSW	
COZO	FIX: CoZo - Also send the Requesting Physician information to CoZo for physicians that don't have a PACSonWEB account	
COZO	Show report in patient history for CoZo users that are not physicians but have access to images is allowed.	
Viewer	Select window level presets using numpad	*
Viewer	**Add documents to a study (.txt, .pdf, .png)**	*
Viewer	FIX: improve loading performance for large series (e.g. 10000 images)	

Viewer	FIX: show update values in Show DICOM tags for study description and study instance UID	
Viewer	**Relevant priors in series picker, based on procedure linking**	*
Viewer	**Create series with Key images**	*
Viewer	FIX: "Expired Images" message doesn't disappear after fetching the images for these studies	
Viewer	Thick slice scrolling	*
Viewer	Show series picker in a viewport	*
WCF	FIX: Inefficient Query execution when IMAGE level C-FIND query is executed against WCF Client	
WCF	Allow to tune polling interval for autotransfer workflow	
Viewer	Allow to send a txt file with order info as part of ORM	*
WCF	Allow multiple Patient ID's for a national number for a sources (turned-on on request)	

WCF	FIX: Patient DOB not updated by HL7 ORU/ ORM.	
WCF	Allow to disable emails to requesting physician for older studies (priors/ migration)	
WCF	FIX: C-Find uses ',' instead of '^' as separator for name parts	

10.1.29 Release notes version 3.2.1000 (14/12/2019)

Project Plan	Release Note
COZO	Support for opening studies without accession number via COZO
WCF	Fix: Clean-up temporary files written in the crypto folder
DICOM router	Include number of images moved in final C-MOVE response
WCF	FIX: ADT - exception when merging patient with deleted studies
WCF	FIX: WCF3 Work list query does not add RRN to DICOM headers
Viewer	FIX: "Expired Images" thumb nail does not disappear after fetching a study with SR
DICOM router	FIX: endless retry if a file already exists in error folder

Image Viewing and Manipulation	Density measurements on Region Of Interest (ROI)
Viewer	FIX: Avoid report scrolls to second line on opening
COZO	**Allow to configure access to studies via COZO for Healthcare providers based on roles, E.g. physicians, dentists ...**
Viewer	FIX: Scrolling through images of a series moves the entire viewport on Safari and Chrome on iOS13
Home Reading App	Allow to pair with new browser if app is still paired wit previous browser
Home Reading App	FIX: Android app stuck in loop when denying camera permission on opening home reading
Viewer	FIX: Not all studies from order are loaded in series picker
Login	FIX: avoid losing pairing with Lastpass or Google authenticator app for 2nd factor authentication
WCF	Add setting to define delay when sending report available SMS
DICOM Router	FIX: Endless loop router when trying to delete file that has already been deleted or moved
Login	Reset password unlocks locked account
PACS Sync	**Possibility to send images directly from modalities without studies**

	being removed by PACS synchronization afterwards
Access	FIX: If a delay is configured for availability of report, images are not available via patient login either
Login	Allow to disable Tutorial and cookie warning in URL integrations
Studies	Show accession number in Overview - Anomalies list
Share	FIX: Share study anonymized and sending reference number via SMS does not work
WCF	ORM parser - remove unnecessary warnings in Windows Application log
Management	User activation mail available in Slovenian
Reports	Header tags are stripped from DICOM SR with HTML report text
Access	Log on removal of access rights by administrators
PACS Sync	Ability to perform multiple C-Moves in parallel
Login	Allow use of PACSonWEB app when logging in with a user created through AD integration
COZO	Show user agreement only once when opening multiple studies via COZO

WCF	FIX: Report Status not correct if DICOM object and ORU are processed at exact the same time
WCF	HL7 ADT Merge - Don't fail messages trying to merge the same patient
Access	Add username who transferred the study to the PACS in study administration
DICOM Router	Router - Visual Notification that a Route is disabled
DICOM router	[Standalone Router - UI] retry failed queue without having to stop the service
DICOM router	[Standalone router - UI] - change font in filter and transformer script windows to a console font for better readability
Login	Sort list of delegates

10.1.30 Release notes version 3.2.900 (23/09/2019)

Project Plan	Release Note
Global	Integrate Digital Ordering in PACSonWEB
Global	Upgrade .NET framework dependency to 4.8
Global	**Slovenian as UI language for PACSonWEB**
Groups	Group confirmation dialog: include all users for admins (also those that choose not to expose their contact details)

Login	**Display clear message if results are not yet available for a security code.**
Login	Repeat source contact number at the bottom of the support page
Login	Bug Fix: 'Send backup SMS' does not work in OTP page when using the authentication app
Login	Bug Fix: OTP still send via mail when switching form SMS to mail
Users	Reactivate account when logging with Belgian EID
Access	Allow to hide studies for none strong authenticated users for your source
Anomalies	In the anomalies page: Clear message when trying to merge patient that has already been merged (e.g. via ADT)
Download	Reduce impact of viewing studies with a large number of images (> 20.000) on PACSonWEB backend
Download	Bug fix: Download single image does not work in IE or Edge
Download	Additional access logging in case studies are downloaded from PACSonWEB
Viewer	**Add support for reference lines and linked scrolling in CT multi-frame studies**
Viewer	Bug Fix: Reference lines are off by 1 image

Viewer	Toolbar not drawn while loading study
Viewer	Bug Fix: Fetch for patients or when opening via COZO is no longer possible
Share	Show full patient name in email when allowed when authentication is required for security code
Reports	**Merge home reading and PACSonWEB Authenticator app for Android & support switch language**
Home Reading/Authentication App	PACSonWEB App for iOS: Improve usability
Dicom Processor	Support OtherPatientIDsSequence for sending social security numbers
Monitoring	Refined monitoring detect a delay in uploading images to PACSonWEB
Monitoring	Add monitoring checks to WCF3 router embedded in the client
PACS Push	Bug fix: using StudyInstanceUID as accession number resulted in unconstraint query in PACS synchronization
Router	Bug Fix: images with space as accession number are stuck in the router queue
WCF	Bug fix: PACSonWEB gateway processing DICOM files (0kb) before they are fully saved by the DICOM Router, causing them to fail
WCF	Bug Fix: Incoming Images processing did not always recover form lost connections

10.1.31 Release notes version 3.2.801 (09/08/2019)

Project Plan	Release Note
DICOM Processor	Bug fix: for files that image upload to PACSonWEB (DICOM Processor failed) ● If there is no accession nr. in the DICOM file ● If Images were not registered by the WCF3 server ● Images send to a client for one WCF client of one source but need to be linked to other source
WCF	Bug fix: Procedure of existing study updated to 'UNKNOWN' if no procedure is passed in ORM/ORU

10.1.32 Release notes version 3.2.800 (26/07/2019)

Access	Show/Hide "Add Study", based on user setting
Access	Show Bank-ID logins in access logging
Dicom Processor	Fix: correction in default window level in case the Study contains a VOILUT sequence
Download	Update referring physician (0008:0090) when downloading or transferring a study
Explore	**Allow user to change order of filters in the explore page**
Explore	Fix: Patient search based on National Number search for Norway and new countries

Explore	Add order level information in the study administration
Explore	**"Select all" checkbox for selecting all studies in (filtered) PACSonWEB explore page**
Explore	Improved performance for searching on Patient ID
Global	**Internet Explorer 9 and Internet Explorer 10 no longer supported**
Login	No OTP required to add study, requiring second factor authentication, in case the user is already strong authenticated
Login	**Use of PACSonWEB authentication app for two-factor authentication**
Reports	Fix: ReferenceNumber in PrintReport template generated a new security code instead of printing an existing one
Reports	**Allow to switch language during speech recognition (iOs only, Android app to be released with PACSonWEB 3.2.900)**
Router	Fix: improve performance of federated queries
Router	Improved throughput of DICOM Router in case of many faulty DICOM files
Share	Ignore the leading "0" when entering a mobile number when sharing a study
Share	Fix: Anonymization/Pseudonymization creates a study instance UID that is more than 64 charachters

Share	By default set two-factor authentication when sharing with a self defined recipient
Access	**Sources can impose "Break-the-Glass" requirement for group members of the requesting physician to motivate access**
RSW	Fix: Limit retries for unregistered patients in RSW
COZO	Fix: GetTransactionList for patient with studies in multiple private practices
Viewer	Reload of a prior study after fetching does not change open study
Viewer	Improved interaction with circle annotation
Viewer	**Make / Share / Hide annotations in PACSonWEB**
Viewer	Fix: take in account origin tags for positioning of imported annotations
Viewer	**Download single image as png, e.g. to use in a presentation.**
WCF	Improved handling of images with accession number in a non-default tag
WCF	Fix: "File in use by another process" exceptions while processing incoming images
WCF	Invalid security codes in ORM or ORU no longer blocking for processing remainder of the message

WCF	Improve performance of C-Move requests to PACSonWEB

10.1.33 Release notes version 3.2.701 (15/05/2019)

Share	Bug fix: Default anonymization gets stuck on 'loading files...'
DICOM Processor	Bug Fix: Incorrect default window level issue for multi frames with SharedFunctionalGroupSequence
DICOM Processor	Bug FIx: Incorrect default window level on images that have VOILUT and a Window width and center tags populated
Global	T+left click listed for 3-point angle, while implemented shortcut is G+left click
Share	Bug Fix: Only one line is shown in forward status
Login	Bug fix: Can't login with delegate user

10.1.34 Release notes version 3.2.700 (10/05/2019)

Login	**Customized Support FAQ page: hints in case of user issues for patients and requesting physicians**
DICOM router	**Federated query: C-Find, C-Move for studies of other sources for a patient in order to make studies from PACSonWEB available in the local PACS system**

Login	**Improved EMR/PACSonWEB URL integration : access logging on correct user & personal annotations**
Login	**Usability improvement for 2 factor authentication: OTP via mail or SMS, mail token to allow adding mobile number**
Localisation	Spanish and Italian as GUI language
RSW	**eHealth: RSW cloud-to-cloud integration: delete transaction + retry failed posts**
Viewer	**New tools: line and 3 point angel annotations**
Explore	**Search on Patient ID in PACSonWEB overview page**
Share/download	**Anonymization/Pseudonymiza tion schemes (paying feature): allows to apply a specific anonymization scheme e.g. for studies used in a research project**
Share	Change label to 'medical department' in sharing
Access	RADION - for new requesting physician, get RIZIV numbers from name suffix in DICOM header to map to a PACSonWEB user
PACS Push	Removing study based on StudyInstanceUID sometimes not correct when study has multiple studyInstanceUIDs

Dicom Processor	Bug fix: source setting 'getReportFromSR=false' is not respected
Reports	Print report uses PACSonWEB user language instead of browser language
Users	Improvements in mails to users: Mr./Ms. based on gender
Viewer	Extend URL integration to allow passing an order number
Login	Trust this computer for 30 days. Don't ask OTP again.
Login	Don't show Cookies warning in an EMR integration
Studies	Bug fix: DICOM Tags not shown in 'Dicom Tags'-popup
Groups	Admin users should be able to see all group members, even those that don't show contact details
Share	Bug fix: Avoid two bucket codes generated when sharing studies from the PACS Overlay
Router	Bug fix: add support in DICOM router for accession numbers that contain system reserved characters
Download	Bug fix: Error when transferring study a second time when the 'imported' label was added
Share	Bug fix: Email validation fails when email address domain contains an uppercase value

Explore	Improve usability of Add study
Login	Bug fix: Password box is shown after invalid login with AD/FS
Global	Add warning that 3.2.700 is the last version that supports IE9 and IE10
Studies	Automatically reload study when the fetch is finished
Access	Send text messages when images are available only after receiving HL7
Login	Bug fix: Reset passwords sends multiple mails, only last one works
Favorites	Show favorite medical department in user settings
Studies	Bug fix: Cannot merge studies (e.g. when accession number changes) after a transfer action
Router	Allow to enforce transfer syntax
Access	Source setting to allow or block automated sharing of exams with group members

10.1.35 Release notes version 3.2.603 (12/02/2019)

WCF	Bug fix: When a series moves between studies, images are still linked to original study => broken image icon
Viewer	Don't show studies with empty order number as being from same order

Viewer	Don't show tutorial when opening PACSonWEB from EMR
Login	Configurable timing for logout on inactivity for PACSonWEB in EMR integrations
Viewer	Bug fix: Script error when selecting window level preset before series is fully loaded in embedded browser

10.1.36 Release notes version 3.2.602 (28/01/2019)

Share	Remember previous share settings
Share	Allow sending of Reference number and OTP code to the same destination type (mail / mobile) based on source setting

10.1.37 Release notes version 3.2.601 (24/01/2019)

Login	Bug fix: Not possible to login with username and password if no mobile number is registered
Login	Bug fix: SendOTPToMail not working if no mobile number is registered
DICOM router	Resolved performance issue for image processing
Explore	Resolved performance issue for queries on security code
COZO	Bug fix: Open study through COZO link
Login	Enhanced layout of customer logo on login page

Share	Quick sharing with non-PACSonWEB users
WCF	Improved performance by load balancing on ORM processing
DICOM Processor	Support additional SOP classes to get report from DICOM SR reports: • 1.2.840.10008.5.1.4.1.1.88.22 Enhanced SR • 1.2.840.10008.5.1.4.1.1.88.33 Comprehensive SR
DICOM Processor	Bug fix: Densitometry secondary captures not correctly processed

10.1.38 Release notes version 3.2.600 (11/01/2019)

Login	Required Opt-in terms and conditions on login page
Login	Enhanced AD / ADFS login
Login	Login page restyled
Login	Patient login through Bank ID (Norway only)
Login	Minimum requirements for security codes
Sharing	**Reworked sharing for better usability**
Sharing	Bug fix for Retrying a share task creates the bucket/POW code
Sharing	Improved patient privacy in sharing mails

Sharing	Validity period for shared studies configurable on source level
Study Page	Faster way for loading 16-bit images
Study Page	Bug fix: Diacritics not shown properly in "Show DICOM tags"
Study Page	Automatically link series with same table position
Study Page	Stepless zoom - freeze and change cursor on the spot you want to zoom on
Study Page	Fetch images for created studies, based on ORU only
DICOM processor	SR support for nested sequences
Management	DICOM tag filter management
Report	Correct handling of SR report status (partial, preliminary, unverified, validated)
DICOM Router	UI for standalone router
Monitoring	Management tool for Checks

10.1.39 Release notes versie 3.2.503 (31/10/2018)

Login	Improvement: AD integration login also accounts for trusted subdomains
Share	Bug Fix: transfer fails due to incorrect use of the 'Created' TimeStamp

10.1.40 Release notes versie 3.2.502 (14/09/2018)

Access	Bug Fix: security patch for restriction of access for source admins on shared repo

10.1.41 Release notes versie 3.2.501 (13/09/2018)

Viewer	Bug fix: series grouping of XA images, based on SOPInstanceUID
Share	Bug fix: Sharing of a study with a blocking anomaly is not possible and a clear warning on the issue is shown
Explore	Unfiltered list is displayed immediately after clicking "Reset filters" in explore page
DICOM Processor	Improved load balancing in DICOM processor

10.1.42 Release notes version 3.2.500 (29/08/2018)

General	Use of language picker for faster switching of interface language
General	**New Feature: PACS archiving in PACSonWEB**
Sharing	Bug fix: Uploading studies from PACS overlay for non PACSonWEB users
Sharing	Sharing with a group: possibility to send notification mail to entire group
Sharing	Adjustment on access rights when sharing study multiple times with the same user

Study Page	Grouping of XA modality on SOPInstanceUID in sead of SeriesInstanceUID
Study Page	Default use of (0008,2144) RecommendedDisplayFrameRate in Cine loop
Explore Page	Increased stability for preforming large worklist queries
Explore Page	Correction in case of anomalies for small screens
Explore Page	Disable filter fields when query is running
Reports	Bug fix: reports not visible on small devices when no images
Users	Support for multiple physician numbers per registered user
Login	**New Feature: payment module for patients**
Monitoring	Advanced monitoring on local installations
Active Directory	**New Feature: support for Active Directory Federated Services (ADFS)**
Access	Increased security on automated mappings
Interfaces	**New Feature: Direct link from EMR to PACSonWEB**
Interfaces	**New Feature: RSW and Abrumed integration**

WCF	Allow ADT patient merges in case of study anomaly
DICOM Router	Enhanced DICOM router: support JPEG 2000 transfer syntax, remote configuration, PACS archiving
Reports	Improved parsing of HTML reports

10.1.43 Release notes version 3.2.402 (05/07/2018)

Studies	Bug fix: In case a DICOM file or HL7 message is received for a known Study instance EUID or accession number but a different patient an anomaly is registered

10.1.44 Release notes version 3.2.401 (07/05/2018)

Viewer	Bug Fix: patients no longer get an error message when fetching expired images with a providing source
Image viewing and manipulation	Bug Fix: location of density measurement now aligned with tip of droplet picker

10.1.45 Release notes version 3.2.400 (13/04/2018)

General	Support links to PACSonWEB from MS Word, Excel, Powerpoint, …
General	Advanced detection and blocking of unsafe HTML tags
Share Study	Modify expiration date for shared studies

Share Study	Enhancement: Clearing patient information from private DICOM tags when sharing a study anonymously
Study Page	**New Feature: Indication on how long images will be available**
Study page	Small enhancements on patient anomalies overview page
Study Page	Improved scrolling sensitivity in CT and MR series
Study Page	Clear message if report is not, not yet or will never be available for patient and requesting physician
Study Page	Improved usability for changing measurements
Study Page	Bug fix: window level for multiframe tomo
Explore Page	Clear indication which filters are set
Explore Page	Filter fields are blocked when performing a search
Reports	**New feature: Make report available to patients after x days**
Users	Supporting identification numbers from other countries for physicians (RIZIV, HIN, INSEE, ...)
Management	Implementation of SQL and task manager
Login Page	Privacy policy is available from the login page (GDPR compliance)

PACS Push	HL7 based filtering for DICOM forward scenario
Groups	Improved usability for group management confirmation
Administration	Automatic sending of mails for new accounts and password reset
Home Reading	Warning in case no postback to RIS is possible due to missing information
Active Directory	Enhancement for better AD account handling

10.1.46 Release notes version 3.2.300 (27/12/2017)

3.2.300	General	Fine-tune banner information
3.2.300	Home Reading	Version check on app upon startup
3.2.300	Home Reading	Disable automatic time-out on microphone in case of no speech
3.2.300	Sharing	**New feature: Email on new study, checkbox per mapping**
3.2.300	Sharing	Preferences on sharing settings are retained
3.2.300	Explore Page	**New Feature: Display multiple modalities**
3.2.300	WCF	Improved HL7 handling (multiple report types, cancel messages, ADT)

3.2.300	DICOM Processor	Bug Fix: handling of XA images
3.2.300	Study Page	**New feature: Fetch functionality for expired images**
3.2.300	Study Page	Display all exams in series picker in case of multiple studies for same order
3.2.300	Study Page	**Extended feature: Anomalies on patient level**
3.2.300	Study Page	Show original DICOM tags for source admins
3.2.300	Management	Advanced user and group management functionality
3.2.300	Management	COZO encryption support tool
3.2.300	Administration	**New Feature: Possibility to regenerate security codes**
3.2.300	Administration	Timestamp on access registration
3.2.300	Transfer	Failover in case WCF crashes during transfer
3.2.300	Transfer	Accession numbers are displayed with progress bar

3.2.300	Active directory	Active directory integration enhancements
3.2.300	PACS Push	Improved handling on reopened exams

10.1.47 Release notes version 3.2.200 (26/07/2017)

3.2.200	Home Reading	**New Feature: Possibility to create a report using speech recognition through app on smartphone (iPhone + Android)**
3.2.200	Sharing	Possibility to revoke access, granted through POW bucket code
3.2.200	Explore Page	Message to clear filter from explore page in case of no results
3.2.200	Explore Page	Performance improvement on loading explore list
3.2.200	DICOM Processor	Processing of ColorSoftcopyPresentatio nStateStorage (CSPS) files
3.2.200	Study Page	Bug fix: printing single issue from Chrome
3.2.200	Study Page	Locking mechanism when editing report

10.1.48 Release notes version 3.2.102 (23/06/2017)

Viewer	Bug fix: opening exam takes too long due to query to look for removed images

10.1.49 Release notes version 3.2.101 (15/06/2017)

Login	Bug fix: issue with password reset in case password has expired
COZO	Bug fix: issue with access through COZO

10.1.50 Release notes version 3.2.100 (13/06/2017)

General	Adaptation of 'About box and terms and conditions' as PACSonWEB is now certified as a CE class IIa medical device
Login	Mail on password reset procedure
Explore Page	Add studies for a group instead of a single user (only for group admin)
Explore Page	Clear filters from within explore pane when no results match the given criteria
Study Page	Possibility to add the report as SR when downloading
Study Page	Notification when images are removed due to expiration of retention
Study Transfer	Retry on progress page in case transfer fails

Study Page	**New Feature: Fast select + shortcuts for stepless zoom / pan / window level**
AD integration	Allow trusted IPs when logging in using AD authentication
Administration	Extended logging on admin access
COZO	Extended logging on study access through COZO

10.1.51 Release notes version 3.2.0 (20 March 2017)

General	**New Feature: Information banner for notifications**
General	New functionality: link to localized manual (WEB + PDF)
General	Enhanced About box
Login	Enhanced login page
Login	Security enhancements (generic messages)
Explore Page	New functionality: Message labels for sharing with user
Explore Page	New functionality: Filtering on national number
Explore Page	Bug Fix: sharing +20 exams at once
Study Page	New functionality: Notification on clinical use
Study Page	New functionality: copying of report

Study Page	Bug Fix: caching issue in case an exam is opened before the images are available
Study Page	**New Feature: Display of registered Anomalies**
Management	**New Feature: New management pages with enhanced functionality + look and feel**
Administration	**New Feature: Administration of registered Anomalies**
PACS Push	Enhancements PACS Push
PACS Push	Back-end for manual synchronization of studies
PACS Push	Enhanced synchronization PACS - PACSonWEB
COZO	Enhanced audit trail COZO

10.1.52 Release notes version 3.1.201 (19 January 2017)

Sharing	DOB is incorrectly displayed in sharing Wizard
COZO	Fix for audit trail end-point
Export to PACS	Osirix import fix

10.1.53 Release notes version 3.1.200 (18 November 2016)

Explore Page	New feature: Option to print sharing information in different language is available in the "Forward Status page"

Explore Page	Fix: Time out on downloading very large studies
Sharing	Fix: Date restriction for sharing a study
Sharing	New Feature: Share with user unlimited in time
General	New feature: Manual can be downloaded as PDF from the help function
Export to PACS	Fix: Issue with progress bar
Study page	New feature: Default 1-up representation on mobile devices
Study Page	Fix: Translation for tool labels
Login Page	**New Feature: Login via Active Directory on e-mail address instead of Windows user name**

10.1.54 Release notes version 3.1.100 (24 October 2016)

Login Page	New Feature: Login history available from the user settings page
Study Page	New Feature: Density measurement tool available for CT in study page
Export to PACS	**New Feature: DICOM IMPORT tool available for controlled import of studies from PACSonWEB into the local PACS (optional)**
Study Page	Fix: Report cannot be copied when not in edit mode

10.1.55 Release notes version 3.1.1 (14 October 2016)

Login Page	Fix: SMS code for activation when logging in with eID for new accounts
Login Page	Fix: eID session is closed when logging out
Login Page	**New Feature: Redirect to new study page is activated for anonymous login**
Study Page	Fix: bug for a specific version of IE11

10.1.56 Release notes version 3.1.0 (14 October 2016)

General	Fix: Group validation not shown for users not in group
General	Change request: Doctors national number format has been adapted (RIZIV in Dutch)
Login Page	**New feature: eID allow users to automatically logon - Only for physicians**
Login Page	New feature: Accounts can have expiration date, necessary for temporary employees
Sharing	New feature: Remove favorites in address book from sharing wizard
Sharing	Fix: Scroll bar added to sharing wizard when selecting multiple exams from the explore page
Sharing	Fix: Subject read notification is localized

Sharing	New feature: Custom formatting/Layout of e-mails
Sharing	New feature: Read/Write rights can be delegated if allowed by source
Explore Page	**New feature: Download multiple exams simultaneously**
Explore Page	New feature: Search POW code in progress overview
Explore Page	New feature: Sorting remains after auto refresh (account setting)
Explore Page	New feature: Filtering on access numbers with algoritm applied
Study Page	**New feature: NEW viewer (phased activation)**
Study Page	New feature: Automatic signature when modifying report
Study Page	New feature: Better indication when modifying report (red border)
Study Page	**New feature: New administration page for administrative manipulations and access consultation**
Image Clean-up	Change: Improvements to information Life Cycle Management
Workflow	Fix: Fix for downloading PNG images for very large studies
User Settings	Fix: Layout fixes for Safari

DICOM Router	Known bug: Study Instance UID might not be updated in particular cases when HL7 arrives before images

10.2 Known bugs

Detected in version	Project Plan	Description
3.3.400	Login	Login request for POW authenticator is sent twice
3.3.400	MPR	Annotation drawing interrupted when crossing axis lines in MPR
3.3.400	Home Reading App	Homereading is interrupted on unstable network
3.3.600	Report	RSDK speech recognition sometimes stops working on less powerful workstations
3.3.600	Report	Cut+paste after speech in Multi-monitor app sometimes pastes at end of report instead of cursor position
3.3.600	Study administration	Study Administration - Newlines in remark fields are displayed as
3.3.700	Management	Unable to load images with error 'Missing IDP Token' after user email address updates
3.3.701	Image view in an manipulations	I thick 2D MIP/MinIP is initiated without loading full image data (preference, or initiate window leveling) you wan't be able to window level the thick slices.

Detected in version	Project Plan	Description
3.3.701	Local Image Cache	When C-Moving from local image cache can not change encoding.
3.3.701	Multi-Monitor	Out-of memory warning while viewing study in multi-monitor app
3.3.702	Reports	Report version are displayed out of order.
3.3.702	Viewer	No user friendly error when fetch times out
3.3.704	Local image cache	Study with only 1 image will always be retrieved from cloud even if available in local image cache
3.3.705	Studies	No detailed information in study logging when moving images or series.
3.3.705	Viewer	Images deleted through IOCM trigger expired images notification with fetch button.
3.3.705	CoZo	CoZo - fetches the National Number from the field 'LOCAL', and the local ID from the field 'ID-Patient' in Kmer message.Issue in rare cases where LOCAL contains another ID.
3.3.705	Reports	Report created in PACSonWEB are not send out id study has no accession nr., but the user is not informed.Reason for failure is

Detected in version	Project Plan	Description
		not mentioned in failed export task.
3.3.800	User settings	Shortcut key configuration - Impossible to remove default shortcut keys for actions having multiple shortcut keys

10.3 PDF version of the user manual

PACSonWEB version	Version installation date	Version release date	User manual revision date	User manual	Release notes
3.3.700	02.06.2023	23.05.2023	23.05.2023		
3.3.601	07.11.2022	04.11.2022	04.11.2022		
3.3.600	21.10.2022	18.10.2022	18.10.2022		
3.3.500	10.06.2022	27.05.2022	27.05.2022		
3.3.400	03.12.2021	30.11.2021	30.11.2021		
3.3.00	27.08.2021	27.08.2021	27.08.2021		

3.3.200	30.04.2021	30.04.2021	29.04.2021		
3.3.110	31.01.2021	29.01.2021	29.01.2021		
3.3.100	12.11.2020	06.11.2020	06.11.2020		
3.3.0	19.06.2020	19.06.2020	19.06.2020		
3.2.1000	22.12.2019	13.12.2019	13.12.2019		
3.2.900	29.09.2019	23.09.2019	20.09.2019		
3.2.800	04.08.2019	26.07.2019	26.07.2019		
3.2.700	12.05.2019	10.05.2019	10.05.2019		
3.2.600	13.01.2019	11.01.2019	11.01.2019		
3.2.500	30.08.2018	29.08.2018	27.08.2018		
3.2.400	16.04.2018	13.04.2018	11.04.2018		

3.2.300	27.12.2017	27.12.2017	22.12.2017		
3.2.200	26.07.2017	26.07.2017	26.07.2017		
3.2.100	13.06.2017	13.06.2017	12.06.2017		
3.2.0	19.05.2017	20.03.2017	02.05.2017		