iCare ILLUME

User manual

The information in this document is subject to change without prior notice and it is correct at revision date. The user interface can change as product improvements are incorporated and this manual may not exactly depict your user interface: please contact the local distributor if you have any questions about differences.
The original language of this User Manual is English. Should a conflict situation arise concerning a translated document, the English language version shall prevail.

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1. Introduction

1.1. Solution Introduction

This is the healthcare professional's instruction manual for the iCare ILLUME software.

iCare ILLUME is a web application designed to be used with the iCare DRSplus. The DRSplus takes TrueColour images used for the screening process.

iCare ILLUME artificial intelligence (AI) partner Thirona (https://thirona.eu/), analyzes the fundus images for the detection of signs of Diabetic Retinopathy (DR) and provides iCare ILLUME with outcomes and recommendations for that patient.

Users automatically see results in iCare ILLUME 'at a glance' and can access the patient screening report and fundus images for review sharing with the patient or other healthcare professionals.

iCare ILLUME relies on an internet connection to connect to the iCare cloud, which delivers the AI screening report to the web application.

2. Getting Started

iCare ILLUME is used over an internet connection. Your service must be provisioned via the purchase order and delivery process. Once your organization has purchased and subscribed to iCare ILLUME, the iCare administration team will set up the organization and relevant accounts to get you started.

The main contact at your location, the 'practice manager', will be sent an email with a secure link to complete their account activation. They will then need to add additional users as needed. Each new user will receive an email and be able to follow the steps to complete their account activation.

2.1. System Requirements

iCare ILLUME is a web application and relies on an internet connection to connect to the iCare cloud, which delivers the AI screening report to the web application.

The solution is designed to work with the iCare DRSplus (v 2.0.x). The device must be upgraded to at least this version to be able to connect to iCare ILLUME.

Our solution is compatible with Firefox, Chrome and Edge browsers (3 most recent versions for Windows and Mac OS) and does not require any software to be installed locally.

Once the service is provisioned by iCare and user accounts have been activated you can access the software immediately.

2.2. User rights by role

Screener: Screeners can update their own account details, manage devices view patient screening activity, access (view, download and print) patient level screening (AI) reports. Screeners cannot update practice or (other) user details.

Practice Manager: Practice Managers can update practice details, add, remove, and edit user roles. Practice Managers do not have the ability to edit user preferences.

2.3. User activation flow

Email and account activation
Practice Manager creates a new user account using an appropriate email address. The user is sent an email with a link to complete account activation.
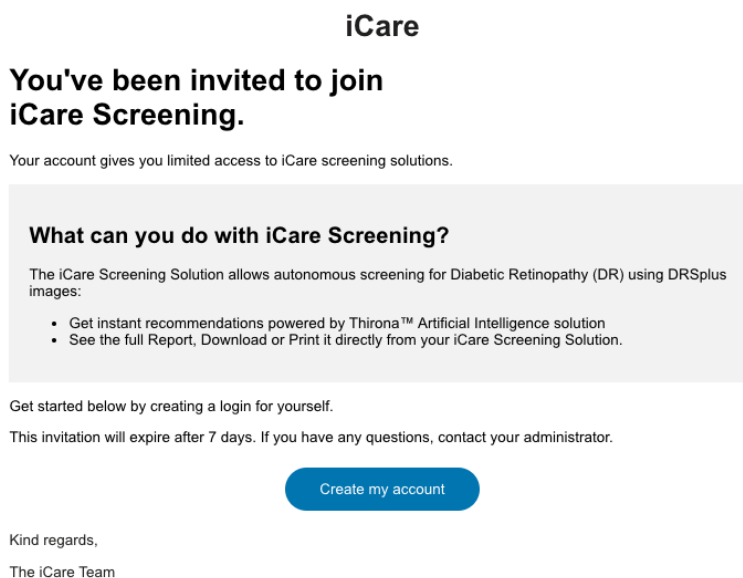

Figure 1 – activation email

Password
The new user creates a secure password for their account, according to minimum password requirements. Users should store passwords securely.

Terms of Use, DPA, AI acknowledgement
The user acknowledges standard Terms of Use, Data Processing agreement and AI provider acknowledgement before continuing with account set up. These terms will have already been agreed to by their organization's decision maker.

Account set up complete
Once account set up is complete, the user is taken to either 'Manage by Practice' or 'Screening' page to begin using the application according to their user role.

2.4. Creating new Screeners (users) in ILLUME

1. Sign into ILLUME (Practice Manager only)

Figure 2 – ILLUME login/sign in screen

2. Go to **Manage My Practice** and Select **Users** tab and click **Create New**

Figure 3 – Manage Users

3. Complete form and save

Figure 4 – Create new user

4. When the 'Screener' has completed the account activation, they can access 'Screening' (see 2.2 User rights by role). Before results can be seen in ILLUME, a DRSplus must be registered to the practice and used for fundus imaging.
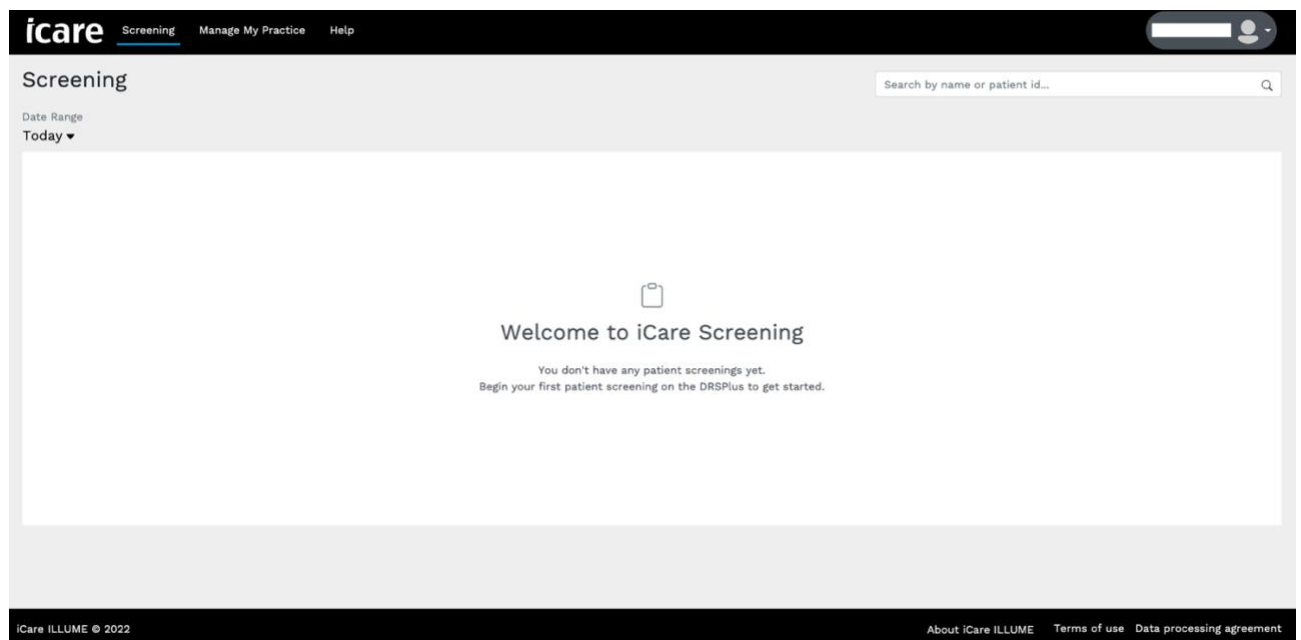

Figure 5 – main screening page. No exams

2.5.   Register the DRSplus with your Screening practice

First, refer to the DRSplus operating instructions and/or check with your support contact to make sure that the DRSplus device:

5.   Is set up correctly with user accounts for operation.
6.   Has been provisioned with the correct license to use ILLUME.
7.   Is running at least software version 2.0.
8.   Is connected to the internet.

Next, register your DRSplus with your screening practice

1.   Sign into the DRSplus with an admin-level account and go to **Control Center** > **Settings** > **iCare Cloud**
2.   On the DRSplus click **Start the iCare cloud registration** and follow the instructions on screen.
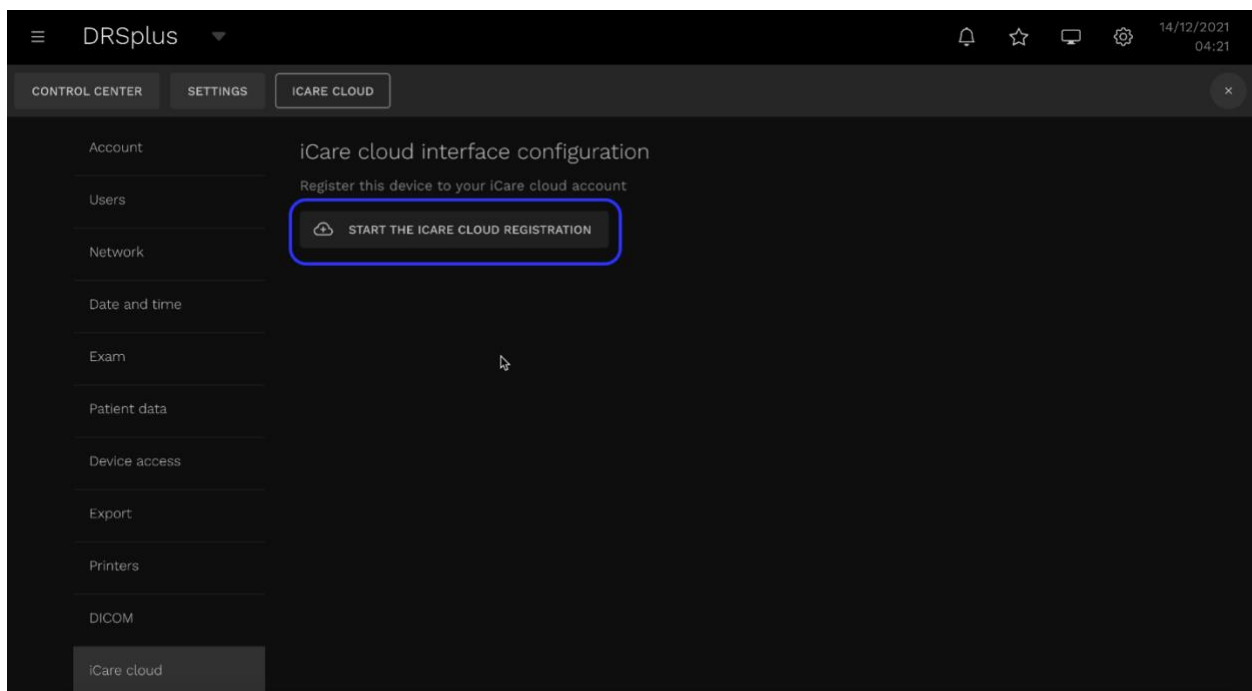3.   Sign into ILLUME and go to **Manage My Practice** > **Devices** to complete the steps.

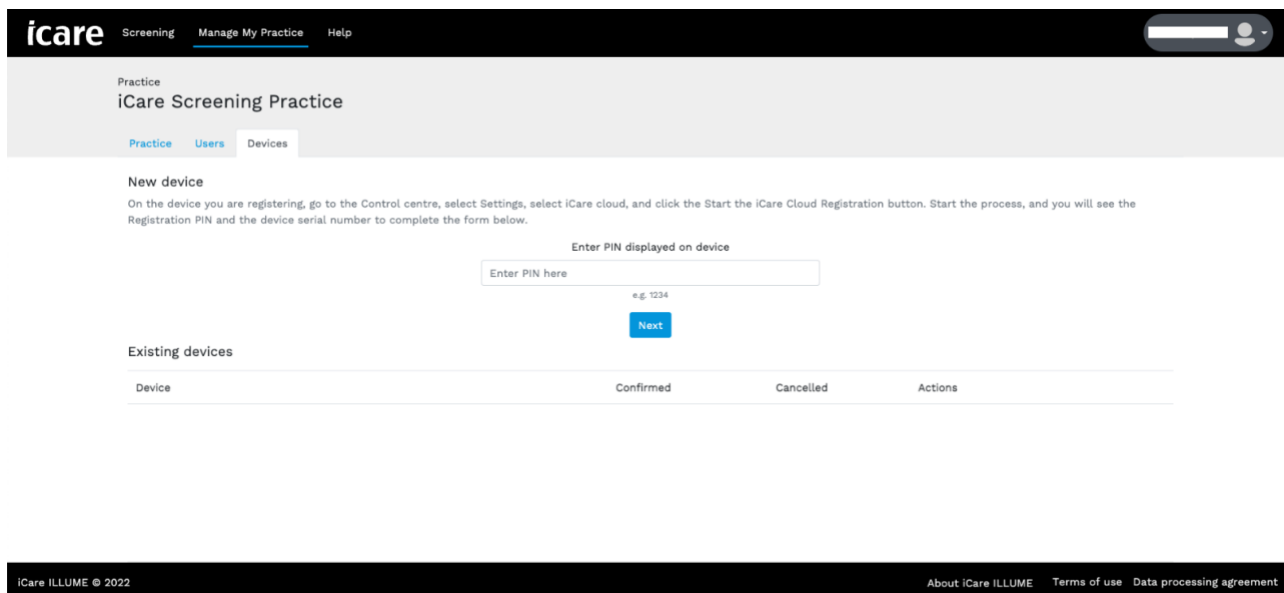*Figure 6 – DRSplus user interface; iCare cloud configuration*

Figure 7 – ILLUME manage devices

3. Typical use of iCare ILLUME

The patient eye exam is taken on the imaging device (DRSplus) and fundus images are automatically send to the AI provider. Screening results summary and full reports are available to users in the ILLUME web application.

3.1. Taking a patient exam

3.1.1. Starting an exam for a new patient (on the DRSplus)

If there is no record of the patient yet in the DRSplus, you will need to create a 'new patient' (see DRSplus user manual for more information).

3.1.2. Starting an exam for an existing/returning patient (on the DRSplus)

Search for a patient record on the DRSplus by name, date of birth or PatientID. If the patient is found, you can start a new exam with the existing patient record.

3.1.3. Taking patient images for screening

For ILLUME screening, the following parameters must be set*:

- **Exam mode** is automatic
- **Fields** are central and nasal
- Left and Right (OS and OD) **eye**
- **Modality** is TrueColour

Take the patient to the DRSplus and position them for a new exam. Make sure the patient is in the correct position and advise the patient how to adjust their position according to the light displayed to the patient.

Once the set of fundus images are taken, they are automatically sent to the AI provider. Results of the screening are available in ILLUME.

If the parameters listed above are not set, the AI provider may not be able to complete the screening report. In this case a message may be displayed in ILLUME to re take the images.

3.1.4.   Retake/restart exam

If ILLLUME displays a message to retake or restart an exam:

4. Go to the DRSplus and search for the patient's profile.
5. Set parameters if not already set. (See 3.1.3 Taking a patient exam).
6. Start exam.

When more than one exam is taken for the same patient on the same day, ILLUME will consider this a retake. In this case ILLUME will display the most recent patient report and fundus images. Previous images for that patient can be viewed in the DRSplus.

3.2. Viewing screening results

The screener can open ILLUME and wait for the result to be available shortly after the images are taken on the DRSplus.

3.2.1.   View all patient exams

The default view is a table of all screening results from 'today'. This can be changed either by using the **date range** picker or **searching** for a specific exam.

The table view includes:

- **Patient name**

- **PatientID** (if captured)

- Patient **date of birth** (if captured)

- **Examination date** and time (local time based on web browser)

- **Result** (may indicate errors, incomplete screening reports or patient level recommendations)

- **Actions** (download and print)

Figure 8 – ILLUME table view

3.2.2.   View a single patient exam

Click on a row in the table to open a single patient exam. Here you can view a summary of the screening results including per eye results, access the full patient report and access fundus images.

Figure 9 – ILLUME exam view

The exam view includes:

- **Patient name** (linked to the table row on the left)

- **PatientID** (if captured)

- Patient **date of birth** (if captured)

- **Gender** (if captured)

- **External PatientID** (internally generated unique to one specific patient exam. Also visible on the AI screening report PDF)

- **Examination date** and time (local time based on web browser)

- **Screening outcome** (direct from AI screening output)

- **Recommendation** (direct from AI screening output)

- **DR assessment per eye** (direct from AI screening output)

- **Exam quality per eye** (direct from AI screening output)

- View print and download full report

- Download fundus images

4. Turn off / on screening mode

The default operation of iCare ILLUME is that all images taken by a registered device (see Register the DRSplus with your Screening practice) are sent to the AI provider for screening.

If necessary, you can turn off screening mode per registered from within iCare ILLUME. When screening mode is off, any images taken on the DRSplus will not be sent to the AI provider and will not appear in iCare ILLUME. You can turn screening mode off / on at any time.
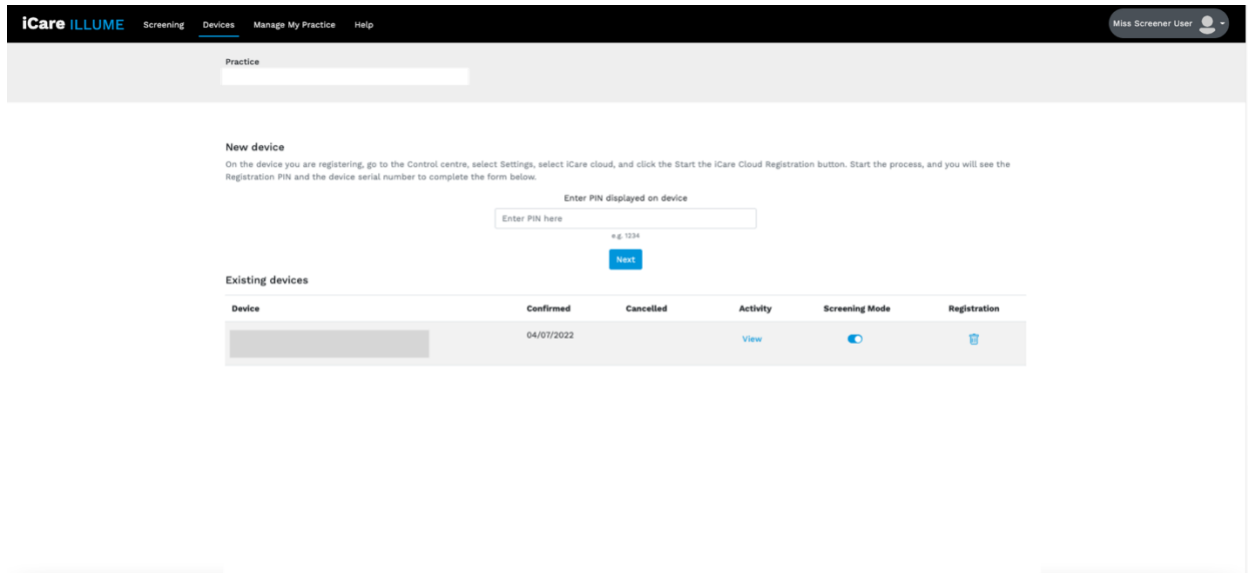

Figure 10 – ILLUME Devices; screening mode

1. Go to **Devices** from the top navigation
2. Find the correct device
3. Toggle off / on screening mode

5. Software logout

We recommend you log out when you are no longer actively using the software.

If you are logged in and inactive for an extended period, you may be automatically logged out as a security precaution. Log back in when you are ready to start using ILLUME again.

6. Troubleshooting

6.1. Error messages

If you encounter an error message that is not displayed here, check the **Help** page in the ILLUME web application or contact your primary support channel.

Message	Possible cause and solution
Oh no! Something went wrong, please restart exam.	Something unexpected has happened. Restart the exam* to resolve the issue. If this doesn't work, contact your primary support channel.
Oh no! Something went wrong, please refresh the page or contact support.	Something unexpected has happened. Refresh the page. If this doesn't work, contact your primary support channel.
You do not have permission to view this page	Your credentials may not have been set up with permission to access this part of the software. 1. Check the URL. 2. Try browsing to ILLUME again. 3. See your practice manager to confirm you have correct permissions. 4. Contact your primary support channel.

6.2. General troubleshooting for software.

Check the **Help** page in the ILLUME web application for general tips and troubleshooting or contact your primary support channel.

7. Related documentation

AI provider	User Manual
Thirona RetCAD™ User Manual.	https://www.icare-world.com/wp-content/uploads/2022/05/RetCAD_2.0.0_UserManual.pdf