ICCP v3.3.0.4 User Manual

Imbio Core Computing Platform (ICCP)

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Languages

If a French translation of this user manual is required by Health practitioner from Canada, Imbio shall provide it within 30 business days.

User Interface

The user interface (also known as the portal) is used to perform various tasks related to the job life cycle for data processed by the platform.

Access To the Portal

The portal can be accessed from your browser. For the correct URL please check the Quick Tech Guide or the email you received from Imbio Support.
When you log in for the first time, you will be prompted to update your password and accept the terms and conditions.

Default User Roles & Permissions

Clinical User

Users with Clinical User access level can:

- Create jobs
- Deidentify PHI for jobs
- Download input for jobs
- Download output for jobs
- Download single CSV for a job
- Download an aggregated CSV report for many jobs
- Download the PDF reports for jobs
- Edit segmentation for jobs (if compatible with the algorithm)
- Filter jobs
- Check additional info about the job
- Reset password
- Contact Imbio support for help

Additional menu items are view only.

GroupAdmin

Users with Group Admin user access level can:

- Perform all functions available to the Clinical User
- Edit users in group
- Edit Skins
- Review group statistics

Additional tabs are view only

Reviewer

Users with Reviewer access level can see jobs in the ‘Ready for Review’ status. Jobs in this status will not be visible to clinical users until the review process has been completed. For this Click the pencil icon to open the job output with the editor attached to the software. See SET user manual for more details on its uses. Once the job is reviewed a new job will be started with the output of this job. The result of this will be visible to the clinical users.

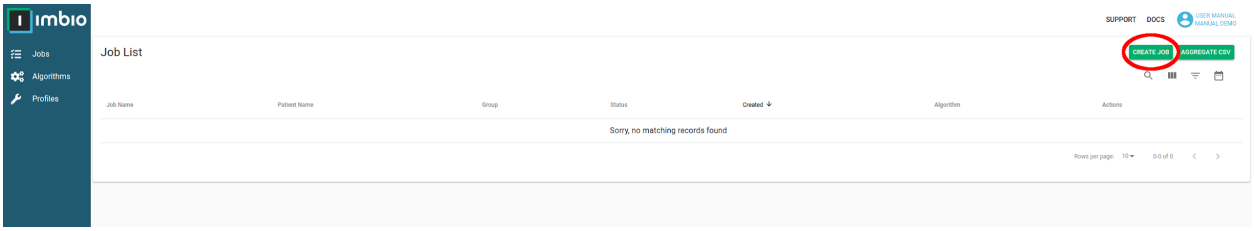
Features of Imbio Portal

Job creation

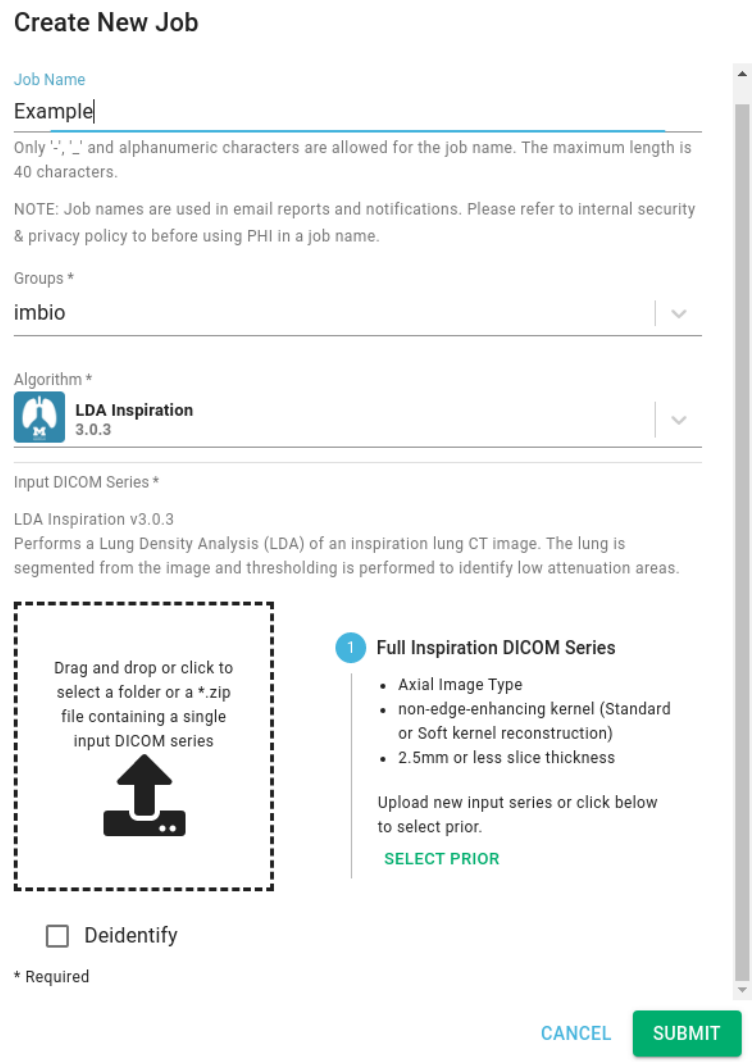
All users have access to this feature

Through Portal

Uploading a job through the Portal is done by clicking the CREATE JOB icon on the jobs page.



This will pop-up a new dialogue box where the parameters and job images can be uploaded.

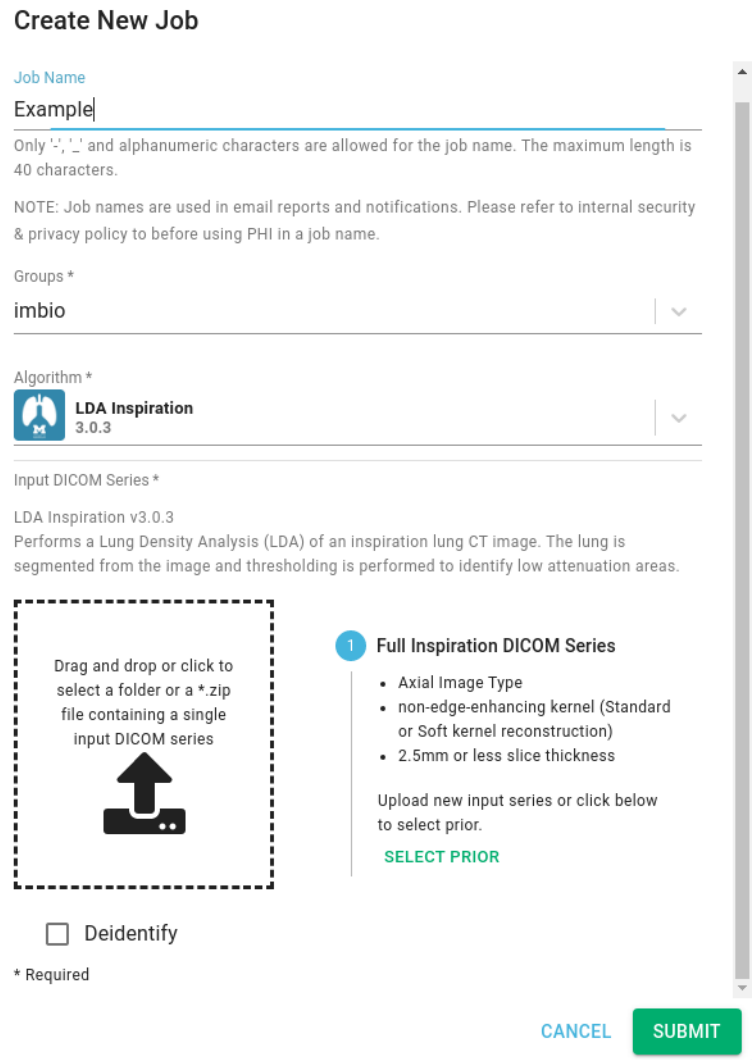


Insert the desired name (whitespaces and special characters not allowed, replace whitespaces with '-' or '_'), select the algorithm and upload the images series and then click Submit. If multiple series are uploaded, the portal will suggest valid studies for the given algorithm. Once you have uploaded an image series or a study it can be processed again without uploading a second time using the SELECT PRIOR.

Deidentify PHI (optional)

If you do not wish PHI to be visible in the output of the results, then check the Deidentify box (found below the drag and drop square). This will fill PHI values with random characters. Note, if

your institution has mandated that data be deidentified, deidentification will be performed automatically. If this feature is not available, please contact your system administrator.



When the job has finished process and the status is in the COMPLETE or finished you can interact with the job in different ways:

- Download the input
- Download the csv output
- Download the pdf report

DICOM Push via PACS or CT Scanner

This feature is only available for Enterprise and Bridge + Cloud installations.

DICOM data can be automatically or manually pushed to ICCP via a DICOM send protocol. The new job will automatically be started with no additional user interaction required via the portal interface. Refer to the Quick Reference Guide provided by Imbio Support for the specific algorithm AETitle, IP and Port. Jobs sent directly from the scanner or pushed from PACS will be displayed via the interface and the job status will be shown in the Imbio portal. When it is finished you can interact with the job in different ways:

- Download the input series
- Download the algorithm outputs
- Download the csv output
- Download the pdf report
- Edit the segmentation

Additionally, if configured to, results will be pushed to a DICOM location (e.g. PACS). Reference the Quick Reference Guide for more information.

Downloading data from jobs

All available actions that can be performed on a job can be found in the Actions column.

Download Input Series

The icon for downloading the input series:
This will use your browser's settings for download prompt/location.

Download Algorithm Outputs

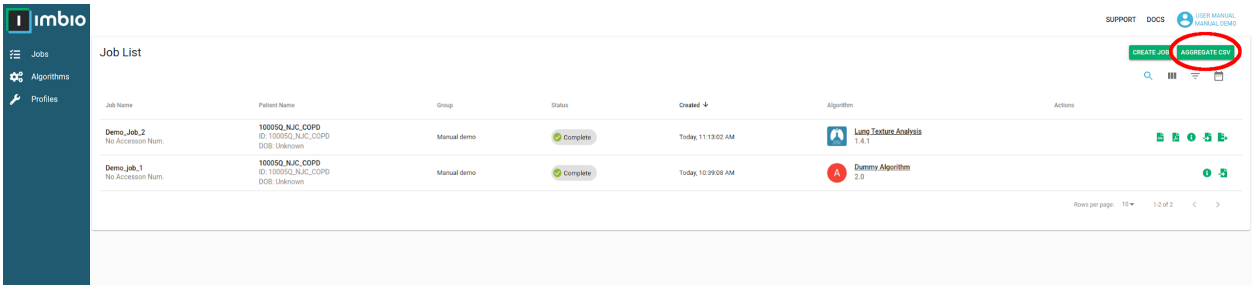
The icon for downloading the algorithm output:
This will use your browser's settings for download prompt/location.

Download Single CSV Report

The icon for downloading the csv report:
This will use your browser's settings for download prompt/location.

Download Aggregated CSV Report

The icon for downloading the aggregated csv report:



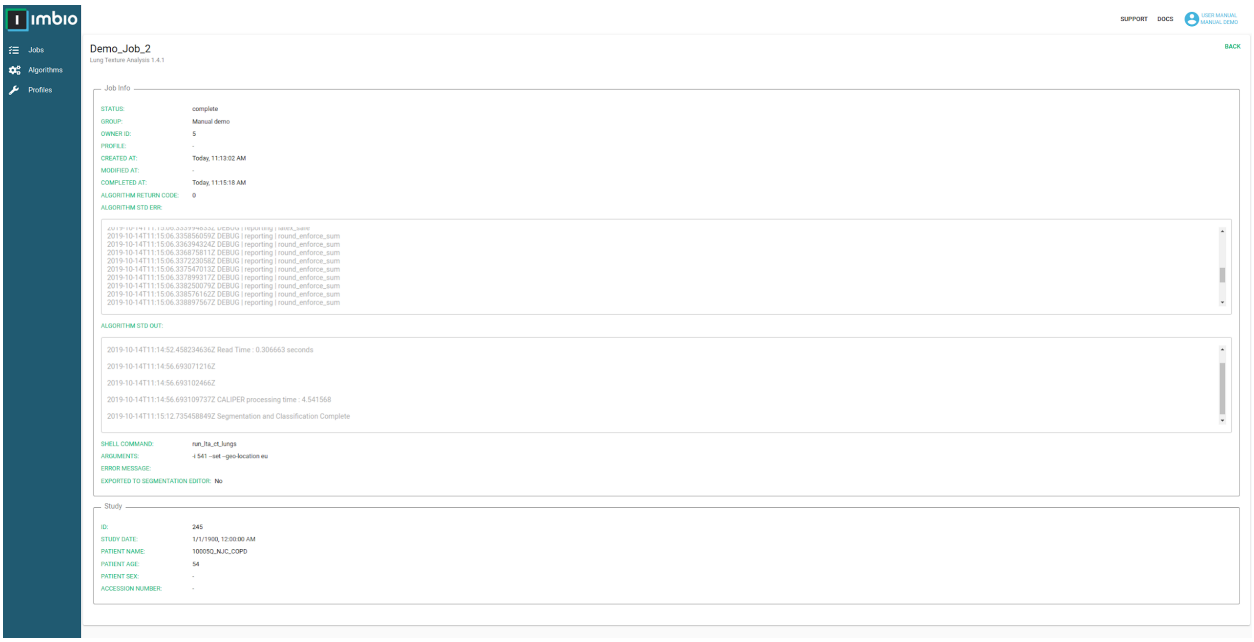
This will create a report of all jobs matching the filter criteria. To change the number or type of jobs in the csv report, use the filter.

Download PDF Report

The icon for downloading the PDF report:
This will use your browser's settings for download prompt/location.

Check job info

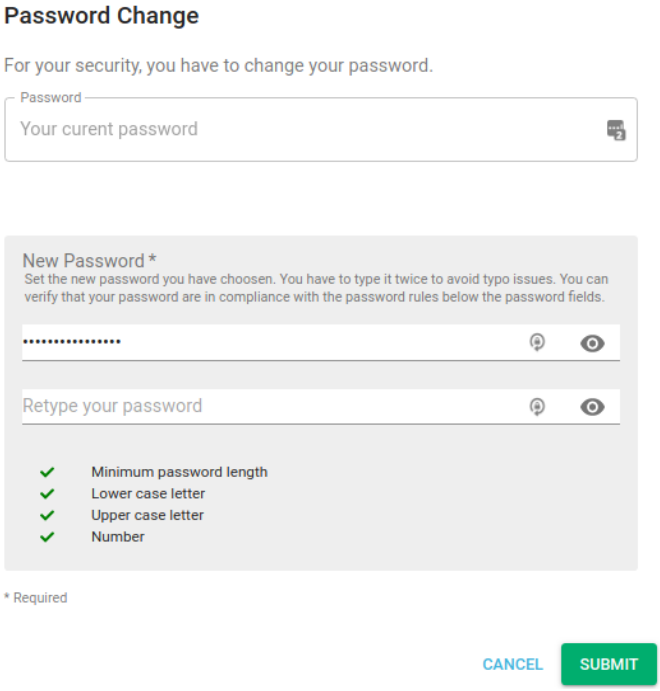
The icon for getting more information about the job:
This will redirect you to the job details page.



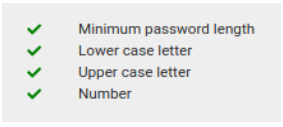
Reset Password

All users have access to this feature.
Your password can be reset at any time by clicking your username on the top right hand corner and selecting profile

After clicking ‘Change my Password’ you will see the following pop-up screen



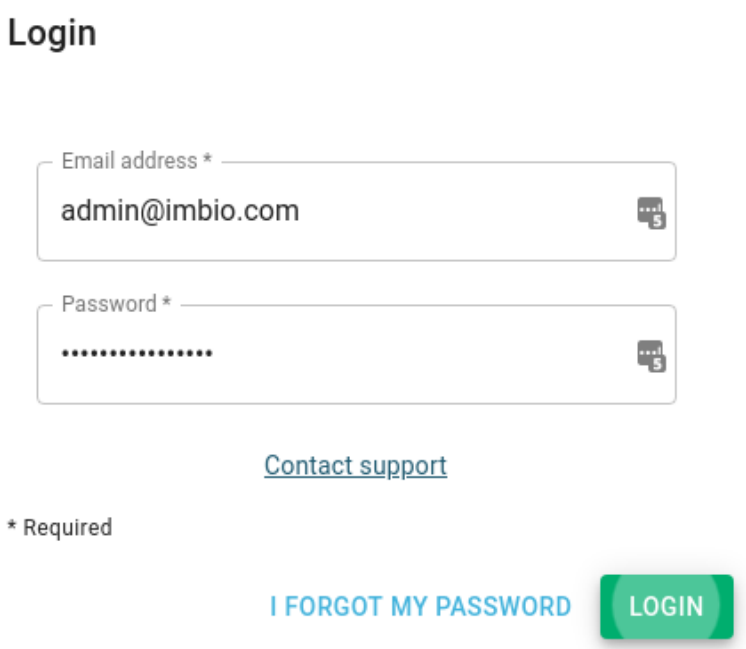
Enter your current password and then your newly desired password. The checkbox at the bottom shows if a when you have given a password of sufficient strength.



Forgot Password

All users have access to this feature

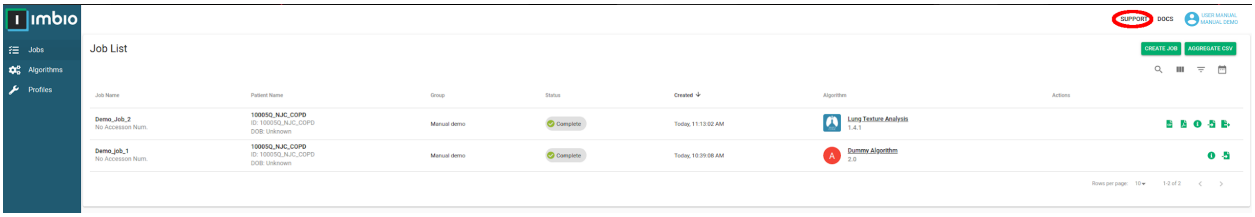
If you have forgot your password click the forgot password link on the login page



This will show a dialogue box that will ask for your email address. Give your email address used for ICCP and an automated email will be sent with password reset options.

Request support from Imbio Staff

All users have access to this feature.
If you have any questions that were not answered in this manual, Imbio support will be happy to help out. They can be contacted from the Portal, by clicking the support menu located in the top right hand corner



This will redirect you to the official Imbio support page.

WE'RE HERE TO HELP

Your satisfaction with Imbio and our solutions is a priority for us. Please initiate a support case using the form on this page. You will receive an automatic email confirmation with your case number and an Imbio support team member will contact you shortly.

SUPPORT HOURS

8:00 AM – 6:00 PM CST (GMT -5:00)
Although we recommend using our online case submission, you can also reach Imbio support by phone or email.

PHONE SUPPORT

U.S. Support Line:+1 612-520-7360
Toll Free Number:+1 844-247-4458

EMAIL SUPPORT

SUPPORT@IMBIO.COM

User Manuals and Bibliography

Contact Name

Company

Email

Phone

Support Needed:

--None--

Description

I'm not a robot

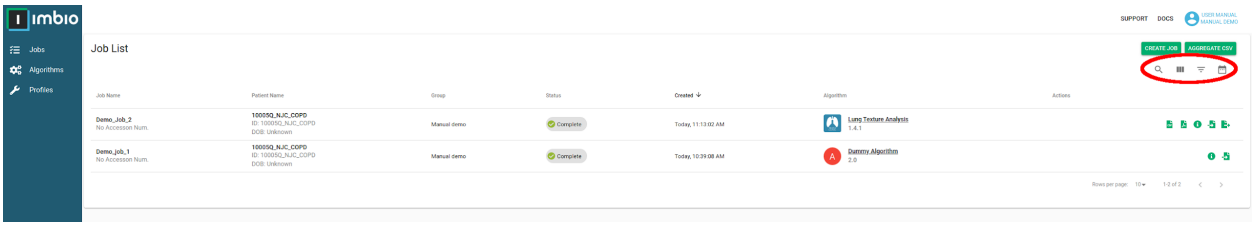
reCAPTCHA
Privacy - Terms

SUBMIT

Filtering jobs

All users have access to this feature.

All filter options can be located in the upper right side of the UI



Filtering jobs has 3 main options:

- Filter by date
- Listed columns in the UI
- Filter by content

Filter by date

The icon for filtering by date:
Once the filter is set only the jobs created between the set intervals will be displayed.

Table filter

The icon for filtering job detail level:
This will display all available options. Click the desired checkboxes to add/remove the selected columns.

Content Filter

The icon for filtering by content:
This will display all available options. Select the desired values, multiple can be chosen. Only results with the selected values will be displayed. If multiple are selected values only jobs with all selected values are visible in the UI.

Search for job(s)

The icon for searching for jobs:
The filter can be used for job name, accession number or patient name.
Searching for the job name will result in a single job displayed, however searching by accession number or patient name can return multiple records.

Edit segmentation

Reviewers have access to this feature.

The icon for editing the segmentation:
Click here for the segmentation editor tools user manual for detailed instructions on using the tool.

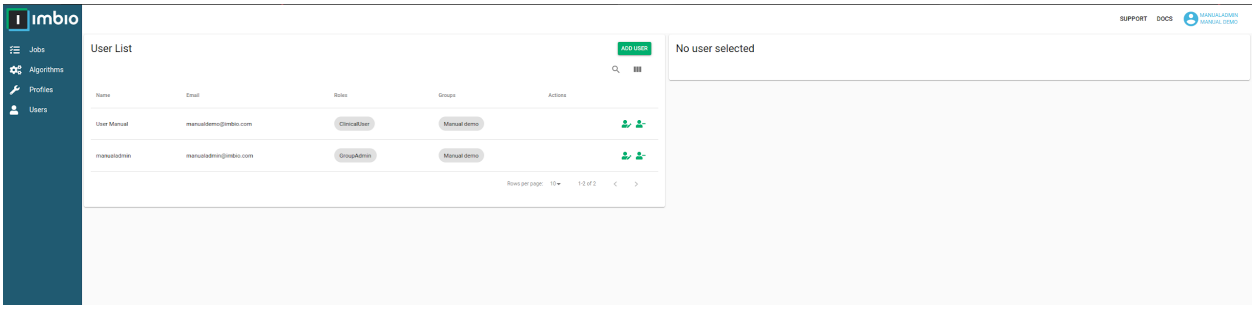
Deleting jobs

GroupAdmin has access to this feature.

The icon for deleting the PHI of a job:
Clicking this icon will prompt a warning that must be accepted. This action will not remove the record from the user interface, but all personal health information and assets linking the job of the specific patient will be removed. Deleting one job will delete all jobs with that specific patient.

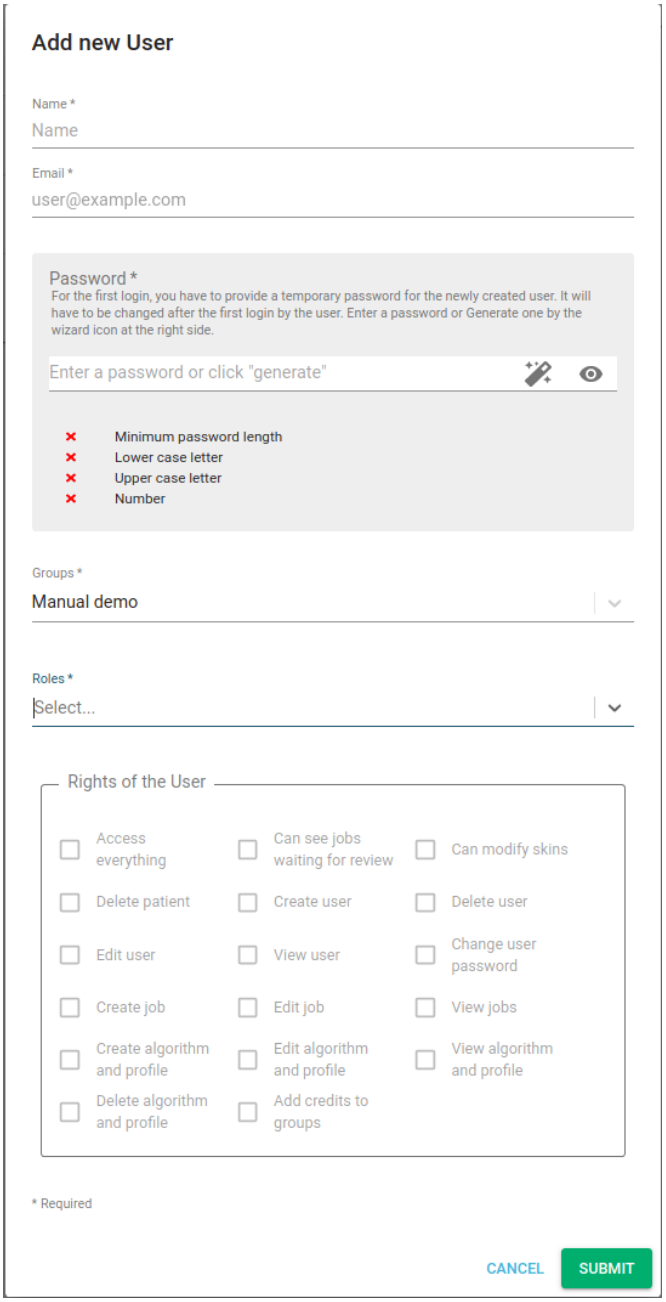
User Management

GroupAdmins have access to this feature.
User management is done in the users tab found on the left side of the UI. User management can only be done to users that are in your group.



Add user

To create a new user click the button labeled add user. This will pop-up a new window



Fill in all needed information (ones shown with a star are required for the form to be accepted) and click submit. New users will be prompted to change their passwords on first login. The email address is used as the username for the Imbio Portal.

Delete user

The icon for deleting a user:
This is found next to each user. Multiple deletion is not permitted on the portal. After clicking the icon a prompt will appear with a warning.

Modify user

The icon for modifying a user:
Modify a user to change their role/name.

Edit Skins

GroupAdmins have access to this feature.
All options can be done individually if needed.

1. Click the Skins menu

2. Change the colouring to the desired Scheme
3. Change the logo for the UI (Upper logo menu)
4. Change the report log (Lower logo menu)

Check Statistics

GroupAdmins have access to this feature

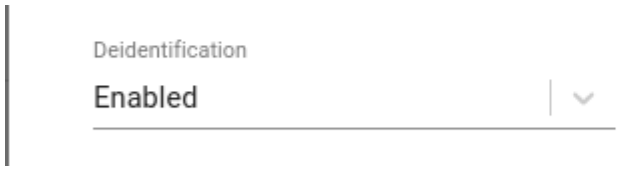
1. Click the groups menu
2. Click the statistics icon on the right side of the desired group to view statistics

DEID/REID

Imbio has the ability to de-identify PHI when uploading a dataset and re-identifying the output when viewing it in the PACS configured with Imbio Portal.

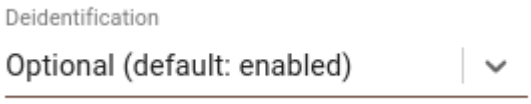
DEID forced

Select enabled on the group page



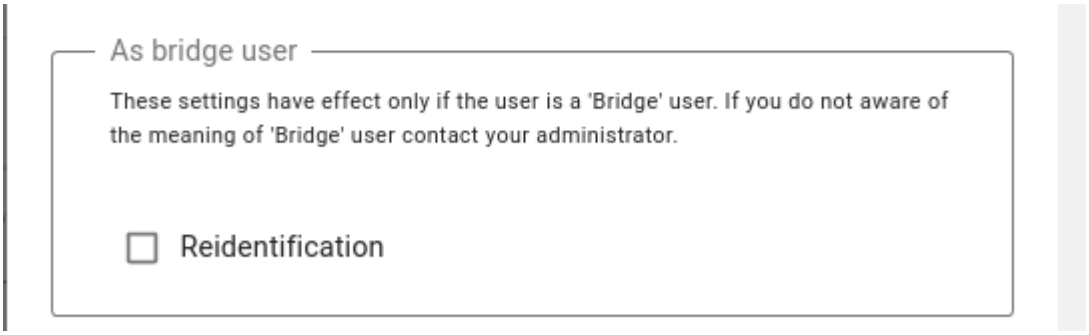
DEID optional

Select Optional (with default). In this case the jobs will not be re-identified when output is uploaded to the PACS server



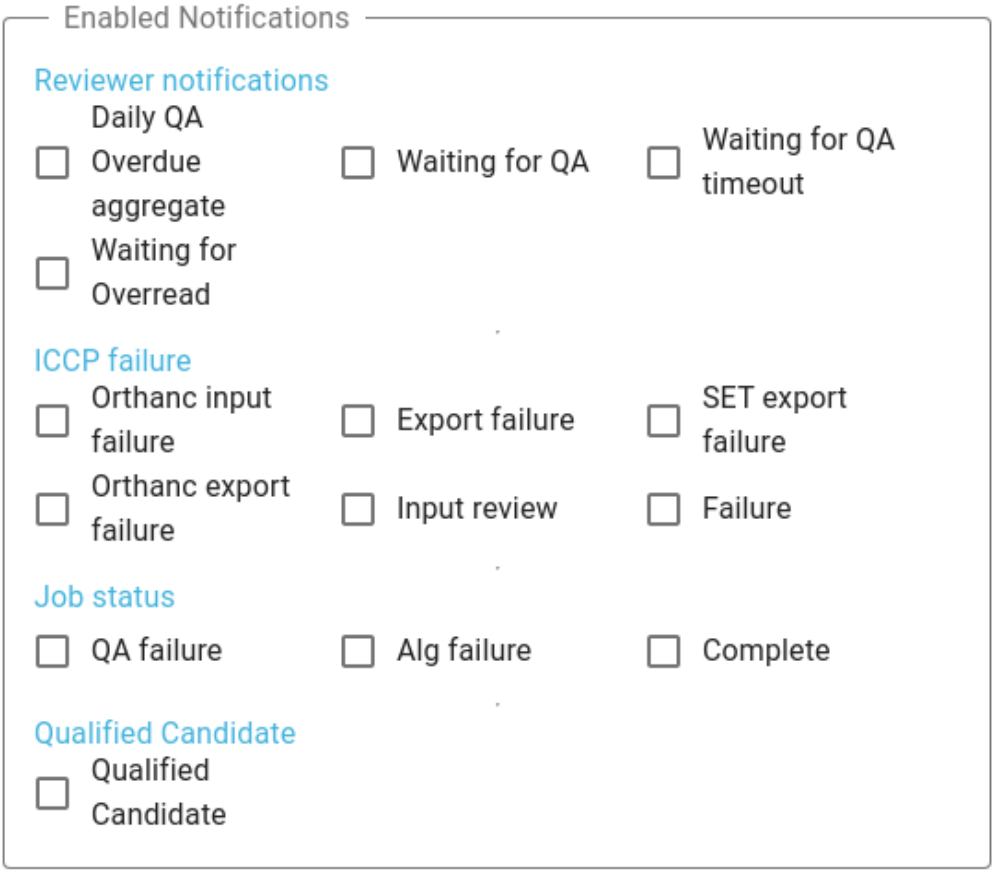
REID

This feature is only available when DEID is forced. In this case select reidentification as bridge user. NOTE: This will only work when viewing the output uploaded to the PACS server.

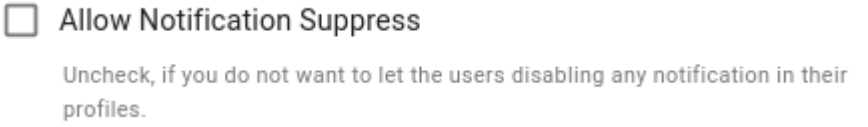


Email Notifications

Email notifications can be received if the following criteria are met:



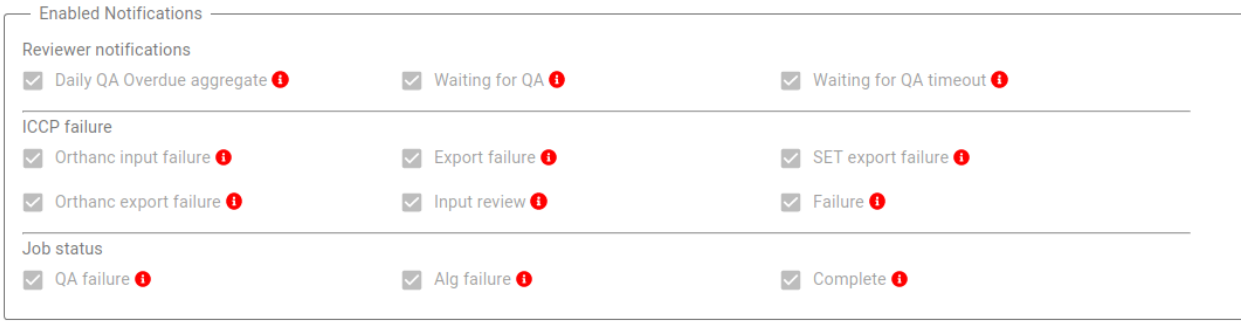
Selecting any of these features will give the users in your group access to these email notifications. To not force the users to receive notifications select the following option:



Selecting Needed Notifications

To disable/enable notifications navigate to your user profile

Then in the profile page select the needed notifications by clicking the checkboxes next to the notification:



Internet Explorer 11 Limitation

Folder upload

Uploading a folder is not possible with IE11. To upload multiple slices, navigate inside the folder and select all slices and drag and drop or upload to have the slices visible to ICCP. Alternatively you can use zip files containing the slices instead.

On-Premise Installation

The hardware specifications below will provide enough resources to run a single algorithm at a time. If additional jobs are submitted while one is running, those jobs will be queued. If a customer requires a higher number of concurrent jobs, additional VMs will need to be obtained.

The application is deployed as two or more VMware vSphere-compatible OVA “appliance” files, one “core” VM, which provides Imbio’s core automation functions and one or more “compute” VMs, on which the actual image processing is performed.

Hardware Requirements

Imbio Core Computing Platform (ICCP) is deployed into a VMware vSphere environment. As such, all of the below hardware specifications assume that they are assigned to the ESXi guests, and are reserved for their use.

CCP Core VM Requirements

- Quad-core, 64-bit capable CPU, 2.0GHz minimum
- 32GB RAM
- 200GB Disk Storage minimum (more may be required depending on usage[1])
- 1 GigE Virtual NIC

CCP Compute VM Requirements (Only needed for Enterprise installations)

- Quad-core, 64-bit capable CPU, 2.0GHz minimum
- 32GB RAM (more may be needed depending on use case and algorithms needed)
- 200GB Disk Storage
- 1 GigE Virtual NIC

Firewall Requirements

These firewall rules (if required by customer’s network policy) need to be applied to the customer’s network equipment. It is assumed that the core and compute VMs reside on the same layer 2 network and as such, have no restrictions on communication between them. If this is not the case, please contact Imbio support.

[1] Dependent on volume and SET configuration

Egress Rules

- 443/tcp to mc.scripzo.com (Package and license updates)
- 443/tcp to sumologic.com (logging manager)
- 123/udp and 123/tcp to local NTP server
- 53/udp and 53/tcp to local DNS resolvers
- 80/tcp and 443/tcp to *.ubuntu.com (operating system updates)
- 443/tcp to download.docker.com (package updates)
- 443/tcp to *.amazonaws.com
- Misc. ports as needed for DICOM network transfers

Ingress Rules

- 8443/tcp from administrative subnet (Imbio CCP management interface)
- Misc. ports as needed for DICOM network transfers

Network Service Requirements

- DNS resolvers
- NTP Server or Servers (if these cannot be provided, then Imbio CCP will require access to a set of external NTP servers)
- 1 static IPv4 address for each VM (1 for CCP Core and 1 each for CCP Compute instances)
- A VPN tunnel to the Imbio Core server and Imbio Compute servers.

Installation Steps

Overview

The installation of Imbio CCP involves downloading the Imbio CCP OVA. Imbio support will work with you to either provide download links for the OVA images or upload them to a customer-owned file transfer service.
Generally speaking, both components (CCP Core and CCP Compute) follow a similar installation path:

1. Download and import the OVA into the vSphere environment. This will be the Core VM.
2. Clone the instance once; this will be the first Compute VM.
3. Add DHCP reservation(s) for the two VMs.
4. Power on each instance.
5. Grant remote access to the Imbio support team for completion of installation by setting up VPN access to the machine.

6. Imbio support staff will complete the installation.

Installation of Imbio CCP Core

The Imbio CCP Core service needs to be installed first. The process is as follows:

1. Import the Imbio CCP OVA.
2. Create a DHCP reservation for Imbio Core's MAC address.
3. Power on Imbio Core VM. The IP address is printed to the console's login screen after boot up. Inspect the console output to verify that the correct IP address is assigned.
4. Grant Imbio support VPN access to the machine.
5. Imbio support will finish the configuration.

Imbio Core is now configured. Proceed to "Installation of Imbio Compute" to complete the installation.

Installation of Imbio CCP Compute

Your site may be licensed for a number of Imbio CCP Compute instances. The configuration of the Imbio Compute software is identical on all instances. The installation procedure involves installing and validating the first instance, then cloning to the licensed number instances.

1. Clone the Imbio CCP Core VM.
2. Create a DHCP reservation for Imbio Compute's MAC address.
3. Power on Imbio Compute VM. The IP address is printed to the console's login screen after boot up. Inspect the console output to verify that the correct IP address is assigned.
4. Grant Imbio support VPN access to the machine.
5. Imbio support staff will finish the configuration.

If multiple compute instances are warranted in this installation, the CCP Compute VM can be shut down at this point, and cloned as many times as needed. Steps 2-4 above will need to be completed for each CCP Compute VM.

At this point, Imbio support will validate that the CCP application is fully functional and will work with you to ensure proper integration with your existing DICOM tools.