cobas® infinity central lab

User Guide
Version 3.4

Software version 2.5
cobas® infinity lab link module

Life needs answers

Publication information

Publication version	Software version	Revision date	Change description
1.0	2.0	June 2016	First edition
1.1	2.0	June 2016	New features of software version 2.0
1.2	2.0	June 2016	Minor updates
1.3	2.0	September 2016	New features of software version 2.0 and new chapters added
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3.0	2.2	November 2017	New features of software version 2.2
3.1	2.3	March 2018	New features of software version 2.3
3.2	2.4	September 2018	New features of software version 2.4
3.3	2.5	November 2018	New features of software version 2.5
3.4	2.5	January 2019	Minor changes coming from 2.5 service patches

Revision history of User Guide

Edition notice

This publication is intended for operators of the **cobas® infinity** central lab.

Every effort has been made to ensure that all the information contained in this publication is correct at the time of publishing. However, the manufacturer of this product may need to update the publication information as output of product surveillance activities, leading to a new version of this publication.

Where to find information

The **User Assistance** contains all information about the product, including the following:

- Safety
- Routine operation
- Configuration information

The **User Guide** focuses on routine operation. The chapters are organized according to the normal operation workflow.

General attention

To avoid incorrect results, ensure that you are familiar with the instructions and safety information.

- Pay particular attention to all safety notices.
- Always follow the instructions in this publication.
- Do not use the software in a way that is not described in this publication.
- Store all publications in a safe and easily retrievable place.

Training

Do not carry out operation tasks or maintenance actions unless you have received training from Roche Diagnostics. Leave tasks that are not described in the user documentation to trained Roche Service representatives.

Images

The screenshots in this publication have been added exclusively for illustration purposes. Configurable and variable data, such as tests, results, or path names visible therein must not be used for laboratory purposes.

Warranty

Any customer modification to the system renders the warranty or service agreement null and void.

For conditions of warranty, contact your local sales representative or refer to your warranty contract partner.

Always leave software updates to a Roche Service representative, or perform such updates with their assistance.

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Every effort has been made to ensure that this publication fulfills the intended use. All feedback on any aspect of this publication is welcome and is considered during updates. Contact your Roche representative, should you have any such feedback.

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Table of contents

Intended use

The **cobas® infinity** central lab application is intended to be used for:

- the configuration and connectivity management of instruments and software systems
- the management of data regarding
  - Samples
  - Technical validation including automatic release
  - Quality Control (both qualitative and quantitative)
  - Test results and their entry (offline workplaces)
- the management and storing of information, such as
  - Samples Archiving Storage information
  - Rule engine for technical validation
  - Notifications from any part of the system
  - Reagent and Calibrator management
  - Turn Around Time management
  - Production statistics

In addition to the above intended use, the **cobas® infinity** central lab application is intended for:

- the management of data regarding
  - Order Data
  - Patient Data
  - Medical Validation support
  - Result Consolidation and Reporting
  - Billing support
- the management and storing of information, such as
  - General statistics (Data Warehouse)
- Microbiology workflows and data for: (Microbiology module)
  - human samples

Use environment and intended users

The **cobas**® **infinity** central lab software is intended for Clinical Laboratories.

You can find different user profiles using the **cobas**® **infinity** central lab software.

Field Service Engineer (global and local)

Field Service Engineers configure the system and master data (test, test groups, senders, instruments, reports, interfaces, etc.) according to specific requirements of the customers with regards to connected hosts, instruments and sample workflow.
Access level depends on user rights.

Lab Technician

Lab technicians utilize the solution to perform technical validation on patient and QC results, manually edit orders (add or remove tests, edit patient-demographic data), enter patient and QC results that have been obtained from off-line workplaces, print-out patient and QC reports, archive samples, retrieve samples from the archive, etc.
Access level depends on specific user rights.

Lab Physician/Director

Lab Physicians/Directors utilize the solution to check technically validated results, search for samples or test results on patient results, and add comments to the results or order.
Access level depends on specific user rights.

Lab IT Administrator

Lab IT Administrators maintain users and authorization, and maintain tests and senders.
Access level depends on specific user rights.

GP/Hospital doctor/Hospital nurse/Community nurse

These users are not employers of the laboratory, thus their access is restricted to the Lab Link module only. They enter orders manually within the Lab Link module, release print-outs of barcode labels for the tubes for positive patient/sample identification, release print-outs of reports for the patient for blood drawing, view and print the patient result report of their patients.

Phlebotomist

These users are employers of the laboratory, but their access is restricted to the Lab Link module only. Phlebotomists confirm in the system that the samples have been taken according to the order.

Symbols and abbreviations

Product names

Except where the context clearly indicated otherwise, the following product names and descriptors are used.

Product name	Descriptor
cobas® **infinity** central lab	software
cobas® **infinity** general lab	module
cobas® **infinity** emergency lab	module
cobas® **infinity** lab flow	module
cobas® **infinity** lab link	module
cobas® **infinity** microbiology	module
cobas® **infinity** total quality management	module

Product names

Symbols used in the publication

Symbol	Explanation
•	List item
	Related topics containing further information
	Tip. Extra information on correct use or useful hints.
	Start of a task
	Extra information within a task
→	Result of an action within a task.
	Frequency of a task.
	Duration of a task.
	Materials that are required for a task.
	Prerequisites of a task.
	Topic. Used in cross-references to topics.
	Task. Used in cross-references to tasks.
	Figure. Used in figure titles and cross-references to figures.
	Table. Used in table titles and cross-references to tables.
√xy	Equation. Used in cross-references to equations.
	Code example. Used in code titles and cross-references to codes.
[ ]	Square bracket. Used in the items name as defined by your system administrator

Symbols used in the publication

Abbreviations

The following abbreviations are used.

Abbreviation	Definition
ANSI	American National Standards Institute
EN	European standard
n/a	not applicable
UPS	Uninterruptible Power Supply

Abbreviations

Safety classifications

The safety precautions and important user notes are classified according to the ANSI Z535.6 standard. Familiarize yourself with the following meanings and icons.

These symbols and signal words are used for specific hazards:

⚠ WARNING

Warning...

- ...indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

Caution...

- ...indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Notice...

- ...indicates a hazardous situation that, if not avoided, may result in damage to the system.

Important information that is not safety relevant is indicated with the following icon:

Tip...

...indicates additional information on correct use or useful tips.

System safety information

Roche Diagnostics has established a series of recommendations with the aim of allowing the user to work with the software under safe conditions and guaranteeing the correct operation and proper performance of the communication network in which this product has been installed.

Read the following recommendations carefully for the correct operation of the software.

Security

⚠ WARNING

Secure infrastructure

Risk of privacy violations.

- A secure infrastructure must be established for the software network and security policies must be defined to address potential problems or system failures.
- Access is controlled by a login. Every access to the software is registered and logged, including the unsuccessful ones.
- Pay special attention when configuring the number of logon attempts, the password expiry period, and session management.

⚠ WARNING

Enabled security parameters

- All security parameters (profiles, access restrictions, etc.) are enabled by default. Remember that disabling security parameters may lead to potentially major risks, e.g. unqualified staff may change instruments or system configurations, or unauthorized users may access confidential information.

UPS

⚠ WARNING

UPS usage and software shutdown

Risk of data becoming lost or corrupted in the event of a power failure

- It is strongly recommended to use a UPS and to perform regular UPS maintenance.
- It is strongly recommended to keep the journaling feature activated.
- There should be a standard procedure to shut down the software. You must exit the software before shutting down the computer on a daily basis. Having a UPS that can perform a safe shutdown installed mitigates the risk of data loss due to power failure.

⚠ CAUTION

UPS usage

Risk of data loss in the event of a power failure

- It is strongly recommended to use a UPS.
- It is strongly recommended to keep the journaling feature activated.

User settings

⚠ WARNING

Restricting access to critical functions

Risk of confidential information being accessed

- It is recommended to grant users the minimum rights necessary to perform their tasks to protect confidential data and configuration items in the database.

⚠ WARNING

Access to the software and user accounts

- Access to the software should only be granted to users who have been trained and assigned a user name and password. The password must be confidential and must comply with the usual security principles. It must be changed periodically to prevent unauthorized parties from gaining access.
- There must be one account per user. Do not create generic user accounts to be used by more than one person. Create a different account for each user, even if they have the same access rights.
- It is recommended that you develop a Standard Operating Procedure (SOP) to ensure that only qualified staff access the software.

⚠ WARNING

Passwords, access, and system shutdown

- For security reasons and for patient confidentiality, all users must exit the software or lock their computer before leaving their workplace.
- It is recommended to correctly configure the automatic log-off time.

⚠ CAUTION

System performance

Risk of delayed results

- To ensure the operation of the system at full capacity, avoid connecting more users or instruments than your infrastructure supports.

System configurations

The preconfigured settings in the system must only be used as a reference. It is recommended that they are not used as default settings since they should be modified to suit the system and the health center requirements.

General

⚠ WARNING

Regional settings

- Make sure that the configuration of the software matches the regional settings and the local requirements.

⚠ CAUTION

Servers and software performance

Risk of delayed results

- Use servers that are correctly dimensioned to the needs of your installation to guarantee the best performance of the software.
- It is recommended to configure the servers using a high availability and data redundancy system. The existence of a second server prevents data loss in the event of severe or critical failures in the system.

⚠ **CAUTION**

Alarms on validation screens and reports

Risk of incomplete results that could lead to a wrong diagnosis

- To prevent users from validating results without taking into account important information, always configure alarms for validation screens and reports.

⚠ **CAUTION**

Barcodes

Risk of delayed results

- It is strongly recommended to have appropriate Standard Operating Procedures (SOP) to avoid an incorrect handling of tubes.
- It is recommended to use barcodes for tubes and trays to easily identify and locate samples.

All the changes made in the software are recorded using an audit trace.

Backups

⚠ **CAUTION**

Backup protocol

Risk of data loss

- It is strongly recommended to activate regular cache backup and recovery features (preferably daily).
- It is strongly recommended to store (daily) cache backup files in a safe place.
- It is strongly recommended to use a hardware mirroring system

⚠ **WARNING**

Backups and updates

- Before upgrading the software, make backups of all databases and system configurations.

Instruments and reading devices

⚠ WARNING

The software is not prepared to receive different units for the same test and host, or from the same test and different hosts. When receiving the information, the software applies the test units that have been configured.

Risk of incorrect results

- Be careful when configuring the test primary and secondary units. If the units in the software do not match the ones received from the external host or instrument, ensure that the correct modification is applied for every result received.
- If the units change from one message to another for the same test, you must apply the necessary result modification in the system to match the test units.

⚠ WARNING

Repeated values

Results may be misinterpreted if instruments do not show the time when results were sent, or if the same results are received for the same test with the same timestamp.

- Keep in mind that, in this case, results could be repeated simply due to data being transmitted twice and not because a test was repeated.

Reading devices

Risk of results being misinterpreted

- It is recommended that you use reading devices (optical readers, barcode readers, card readers, etc.) to take results. Check the reading devices are operating correctly before using them in real environments.

Results

⚠ WARNING

Result format

Risk of results being misinterpreted or wrong results

- To prevent the software to misinterpret results, do not use separators for thousands when entering results. Only decimal separators must be used.
- Ensure that instruments and hosts are also configured to not use separators for thousands.

21 CFR Part 11 compliance

The Food and Drug Administration (FDA) of the United States under Title 21 of the US Code of Federal Regulation Part 11 (21 CFR Part 11) establishes the requirements to ensure that electronic records and electronic signatures are trustworthy, reliable, and equivalent to paper records with traditional handwritten signatures.

cobas® infinity central lab provides the capability to meet the requirements of part 11 compliance if the system is configured and used properly within the customer's processes. This section describes the steps and settings that are necessary to ensure that the software is configured to meet the requirements of this regulation.
The final responsibility of 21 CFR Part 11 compliance relies on the adequate implementation by the customer ensuring both procedural controls (that is, Standard Operating Procedures, training) and administrative controls.

In case customers need to be compliant with 21 CFR Part 11 regulatory requirements, the software should be configured according to the customer’s policies and needs. Otherwise, the following configurations are recommended:

General parameters

Administration > General > General parameters

ID	Parameter	Description	Recommended value
1	**Accessing the application via Direct Access without having to log on**	When accessing the software using a link or externally, this parameter allows you to access only the screens marked as accessible without having to enter the password and user name on the logon screen.	No (default value)
2	**Backup** (Folder path)	This parameter allows you to configure the directory where the backups of the application databases are stored.	Folder path configured
3	**Session timeout (min)**	This parameter allows you to specify how long the session is kept open (in minutes) since activity was last detected. Once this time is exceeded, the software logon screen appears, and the user name and password must be entered again.	15
4	**Direct access session timeout (min)**	This parameter only applies to sessions accessed from an external environment. This parameter allows you to specify how long the session is kept open (in minutes) since activity was last detected. Once this time is exceeded, the session closes.	15
5	**Days configuration trace is kept**	Indicates the number of days the configuration trace will be kept before deleting it.	9999
6	**History retention period (d)**	Days before the deletion the order traces.	9999

Parameter configuration for 21 CFR Part 11 compliance

ID	Parameter	Description	Recommended value
7	**Delete the orders and patients from the recycle bin after (hours)**	When deleting orders and patients, the application sends them to the recycle bin. These orders / patients remain in the recycle bin until they exceed the number of hours set in this parameter. The system then proceeds to permanently delete these items from the database via the end of day process.	24 (default value)
8	**Number of logon attempts before the user is blocked**	Indicates the number of consecutive mistakes that the you can make when logging in.	5
9	**Password renewal period (d)**	Period of time when the system will request to change the password for a user.	90 (default value)
10	**Password expiry warning (d)**	Period of time when the system will start reminding you to change the password before the password renewal period.	10
11	**Minimum number of uppercase letters in password**	Minimum number of uppercase letters that the password must contain.	1 (default value)
12	**Minimum number of digits or symbols in password**	Minimum number of digits or symbols that the password must contain.	1 (default value)
13	**Minimum password length**	Minimum length required for the password.	6 (default value)
14	**Request password when accessing the validation screen (positive user identification) and the rule engine administration screen**	Indicates if the password for the user will be requested when entering the validation screen or Rule Engine validation screen.	Yes
15	**Enable automatic data removal in database**	Indicates if the system will remove order data automatically from the database.	No (default value)
16	**Add comment when editing validated tests** (for all required applications: General Lab, Emergency Lab and Microbiology)	When enabling this parameter, the application forces the user who edits validated results and wants to save them, to enter a comment. The callout that appears for entering the comment cannot be left empty. It is possible to enter a coded comment. These comments do not appear by default in the report. If you want to view them there, the check box of the Imp./Host column on the Comments screen should be selected.	Yes
17	**Request confirmation when changing results** (for all required applications: General Lab and Emergency Lab)	If this parameter is enabled, the system requests you to confirm whether the test result change should actually be saved in the database. This option helps you avoid mistakes.	Yes

Parameter configuration for 21 CFR Part 11 compliance

Reports **Administration > Reports > Definition**

ID	Configuration	Procedure
18	Report configuration includes the user that validates the result.	1. Choose the corresponding report. 2. Choose the **Design** button. 3. Include the **Validation user name list** field in the report.

Report configuration for 21 CFR Part 11 compliance

The following settings must be properly configured to comply with this regulation:

ID	Configuration
19	Check Backup List (Database configuration)
20	Check Backup Task (Database configuration)
21	The communication channel uses SSL or HTTPS between client and server

Backup and communication configuration for 21 CFR Part 11 compliance

To ensure that these settings are properly configured, contact your Roche Service Representative.

It is recommended that customers keep evidence of this configuration according the required regulations.

Interface overview

Interface overview

After accessing the software, you can perform basic tasks such as changing the module or the profile, or filtering and sorting the information displayed on your screen.

In this chapter 1

Accessing the software

In this section

Logging on to the software

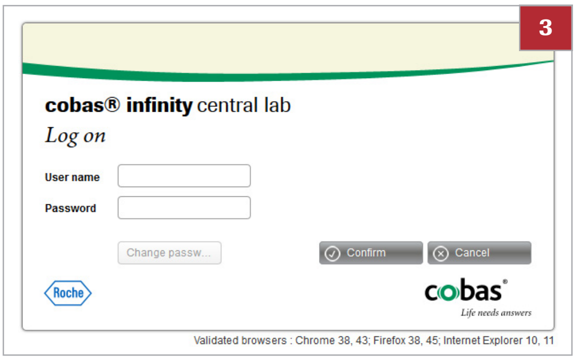
You need to log on to the software to carry out any tasks.

- ☐ A compatible browser
- ☐ A valid user name and password

▸ To log on to the software

1 Open the software or type the server address as provided by your administrator.

2 If you are working with LDAP, from the **Domain** drop-down list, choose an option.



3 On the logon screen, fill in the following fields:
   - **User name**
   - **Password**

4 Choose the **Confirm** button.
   ❶ If you exceed the number of logon attempts available, contact your system administrator.

5 If a Java callout appears, select the [Allow] option to be able to detect printers later on.

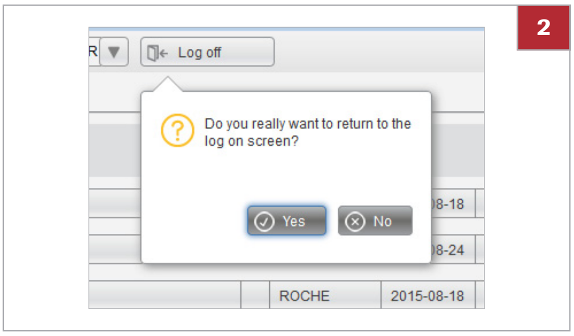
Logging off the software

For safety reasons, you need to exit the software after completing your task.

To log off the software

1 From any screen, choose the **Log off** button located in the information area.

2 To confirm that you want to exit the software, choose the **Yes** button from the callout.



Changing the password

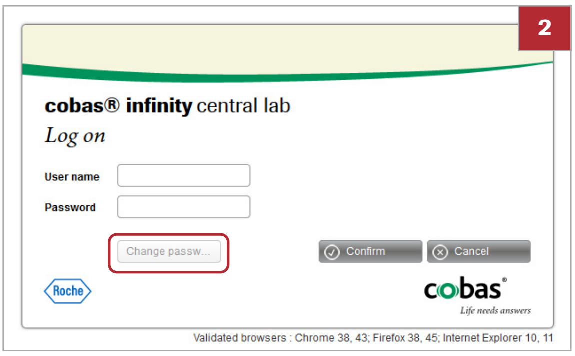
You can change the software password whenever you want, whenever the system requires it, or when your current password is about to expire or is no longer safe.

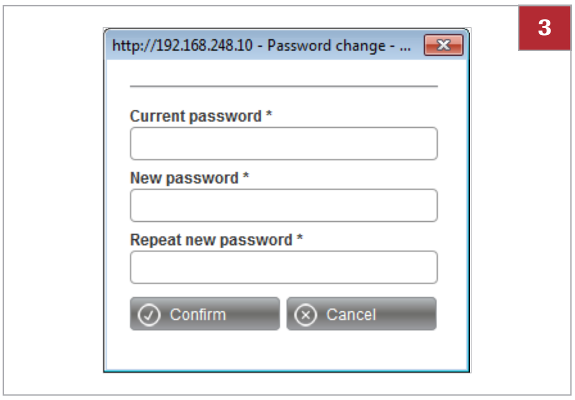
If you are working with LDAP, you cannot change your password.

To change the software password

1 On the logon screen, fill in the **User name** field, and then press the Tab key.

2 Choose the **Change password** button.





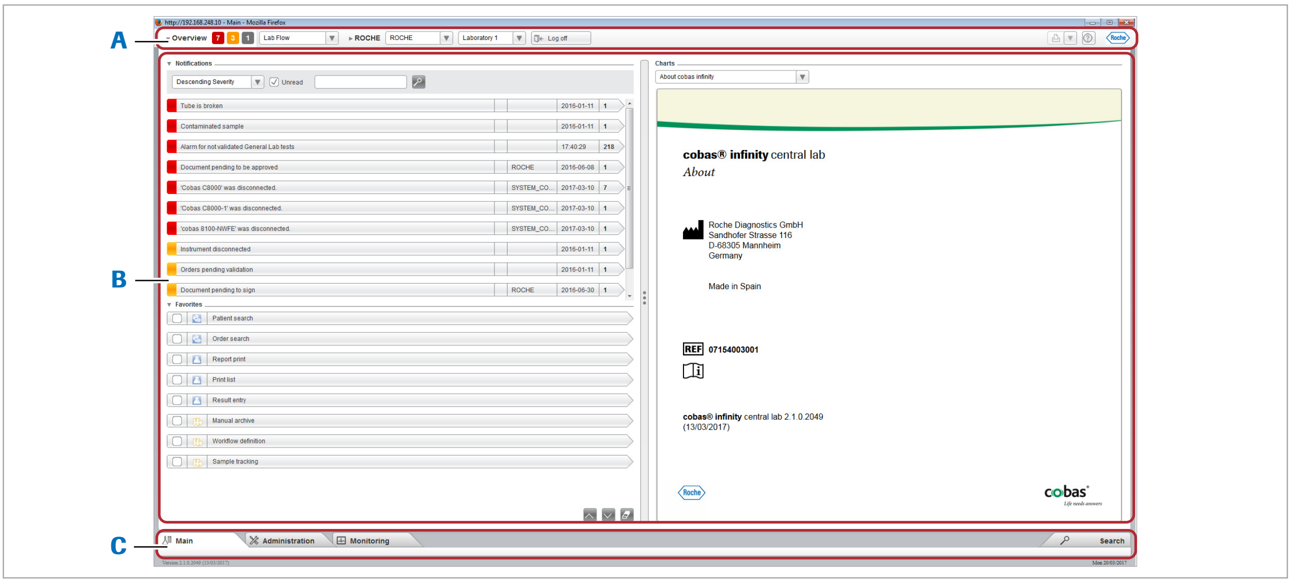
3 In the dialog box, enter your current password, enter the new password twice, and then choose the **Confirm** button.

4 Log onto the software using your new password.

- If you have forgotten your password, contact your system administrator.

About the software framework

The software framework consists of different areas that allow you to perform several tasks.



A Global information area

B Overview area

C Working space

Software framework

Global information area

From this area, you can do the following:

- Change the software module
- Change the user profile
- Change the profile location
- Export tables
- Print barcode labels

Overview area

From this area, you can do the following:

- View notifications
- Assign and manage shortcuts
- View work area and monitoring charts
- View the software information

Working space

From this area, you can do the following:

- Perform a quick search
- Navigate through tabs, menus, and screens

Related topics

- Changing the software module (28)
- Changing the user profile (28)
- Changing the profile location (29)
- Exporting tables (40)
- Printing barcode labels manually (51)
- Viewing notifications (32)
- Assigning and managing shortcuts (33)
- Searching for general information (35)
- Navigating through tabs, menus, and screens (34)

Performing basic tasks in the software

From the main page, you can access the various modules and tabs of the software, as well as perform some basic tasks.

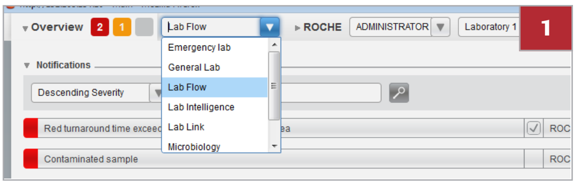
In this section

Changing the software module

If you need to perform any tasks in a different module, you can switch to it without logging off the software.

For example, to print both General Lab and Microbiology worklists, you can easily switch from one module to the other, if you have access rights.

To change the software module



1. From the drop-down list located in the global information area, choose the desired module.
   → The **Main** tab menu is refreshed with the options available for the selected module.
2. If you log off the software and log on again, the last module used is displayed.

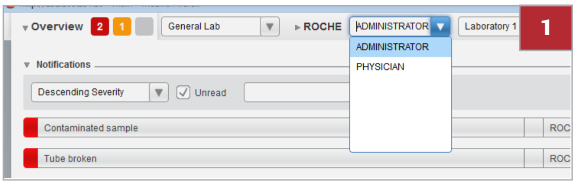
Changing the user profile

You can switch to a different user profile to perform some tasks without logging off the software.

Your user ID can be associated with more than one profile with different access and work rights. You can easily switch from a profile to another to carry out some tasks in the software.

☐ More than one profile assigned to your user ID

▸ To change the user profile



1 On any screen, look for the profile drop-down list located in the global information area.

2 Open the drop-down list and choose the desired profile.
   ❶ If you log off the software and log on again, the last profile used is displayed.

Related topics

- Changing the profile location (29)

Changing the profile location

If you are working in more than one health center or in different services, you can select one of the locations associated with your profile.

When you log on to the software, the last location used is displayed.

☐ More than one location assigned to your user ID

▸ To change the profile location

1 On any screen, look for the location drop-down list located in the global information area.

2 Open the drop-down list and choose the desired location.
   → The **Main** tab menu is displayed.

Related topics

- About location and multisite (30).

About location and multisite

A multisite environment allows you to access patient information from any of the locations you are working in.

About location

A multisite environment consists of having patient information accessible from different locations. A location can be a laboratory area or a hospital service and each user profile can log on to one or more locations.

In the software, a location is a configurable demographic that can have one or more values. Consider the following:

- All the user profiles must be associated with at least one location.
- All the tests and orders in the database must be assigned a location.
- All instruments and hosts must be assigned a location.

In **Main > Queries > Order traces**, you can check the location of orders and tests at any time.

Selecting the profile location

If your profile is associated with more than one center or service, you can select the location you are working in. This affects the assignment of location to orders and tests.

Changing the profile location (29).

Manual or automatic location assignment to orders and tests

When you perform manual tasks such as entering orders, tests, or test results, a location is assigned to orders and tests. In some cases, you can change the order location.

Some automatic actions performed by hosts, instruments or by the rule engine also result in the assignment of a location to orders, tests, and test results.

If you are not working in a multisite environment, you do not have any location associated with your profile. In this case, all the tests and orders in the database are automatically assigned to the default location Laboratory1.

Type of task or action	Task or action	Location assignment	Reference
Creating orders	You create an order from **Main > Order entry > Order entry**.	• The order gets the profile location. However, you can change the order location by selecting it from the **Location** drop-down list in the **Demographics** group box (if displayed). • All the tests entered at this time get the same location as the order.	
	You create a pre-order from **Main > Order entry > [Pre-order entry]**.	• The order gets the profile location. However, you can change the location by selecting it from the **Location** drop-down list in the **Order details** group box (if displayed). • All the tests entered at this time get the same location as the order.	Creating a pre-order (68).
	You retrieve a pre-order from **Main > Order entry > Collection**.	The order gets the pre-order location and cannot be edited.	Collecting a sample (72).
	An instrument sends an order.	The order and all its tests get the instrument location.	Contact your Roche Service representative.
	A host creates an order.	The order and test locations depend on the host configuration.	Contact your Roche Service representative.
	The rule engine creates an order based on an existing order.	The new order and all its tests get the location of the existing order.	Contact your system administrator.
Adding tests	You add a test to an existing order from **Main > Order entry > Order entry**.	The added test gets the profile location, regardless of the order location.	
	You add a test to an existing order from a validation screen.	The added test gets the profile location, regardless of the order location.	
	You retrieve a test affected by a rejection rule.	The retrieved test gets the order location.	
	The rule engine adds a test to an existing order.	The added test gets the order location. This action also applies in the case of rejection rules.	Contact your system administrator.
Entering or editing test results	You enter or edit the results of a test from a validation screen.	The test gets the profile location.	
	The rule engine reruns a test or assigns an automatic result to a test.	The test location does not change.	Contact your system administrator.
	The rule engine enters or edits the results of a test.	The test location does not change.	Contact your system administrator.
	An instrument sends test results or makes a query.	The test gets the instrument location.	Contact your Roche Service representative.
	A host sends the results of a test.	The test location depends on the host configuration.	Contact your Roche Service representative.

Manual or automatic location assignment to orders and tests

Filtering work areas by location

Since all the orders and tests have an assigned location, you can use this demographic to filter your work area items. This way, you can narrow down the number of items displayed.

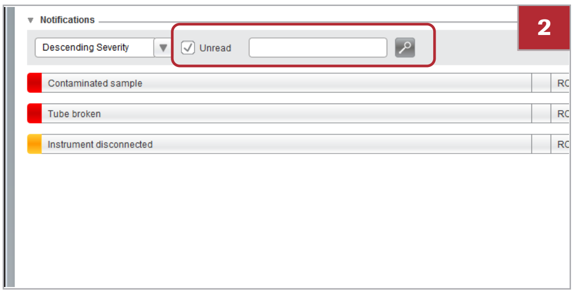
Viewing notifications

In the overview area, you can view the alarms and warnings issued by the system when the events configured as alarm triggers take place (orders are not validated, instruments get disconnected, etc.).

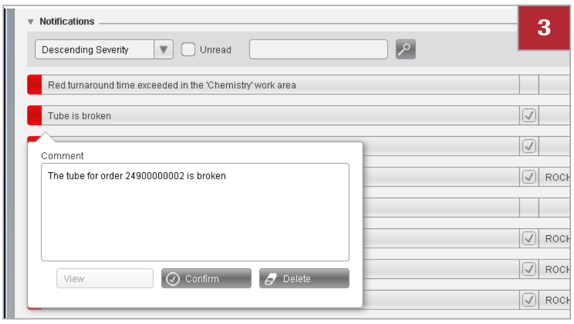
☐ Notification severity conditions configured by your system administrator

▶ To view notifications

1 From the global information area, choose the **Overview** button to display all the available notifications.



2 To filter the notifications, do one of the following:
- Enter a search term in the search field.
- Select the **Unread** check box.



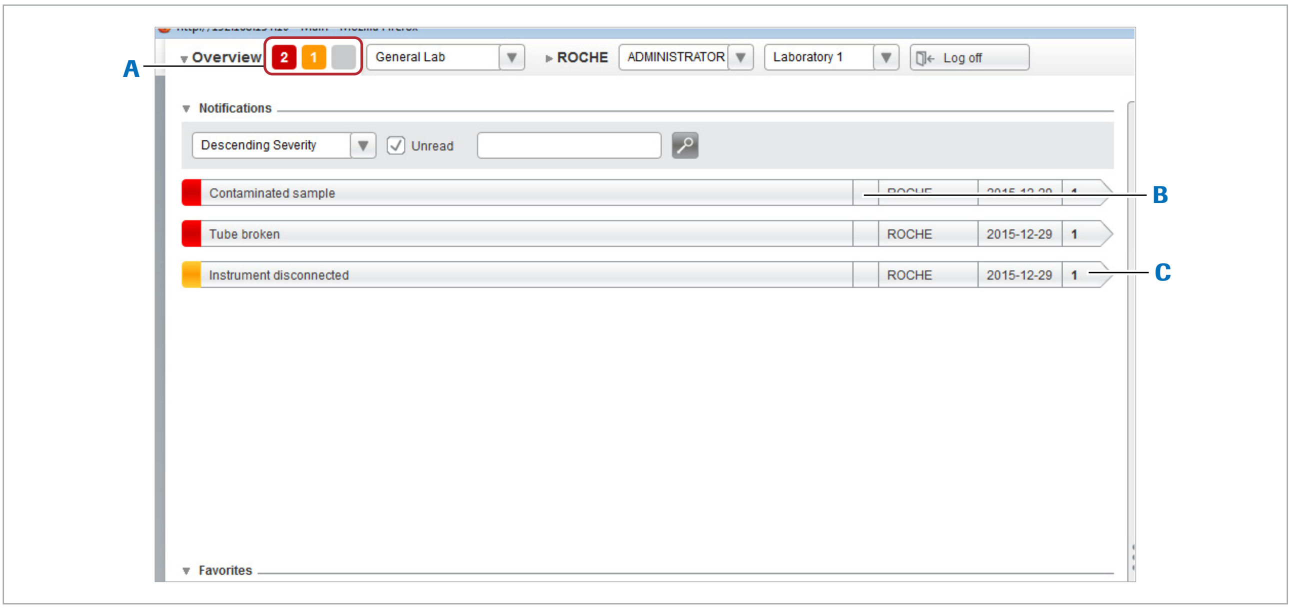
3 Choose the desired notification to see its description, and then do one of the following:
- To access the screen where the error is detected and solve the issue, choose the **View** button, if enabled.
- To confirm that you have read the notification, choose the **Confirm** button.
- To delete the notification, choose the **Delete** button.

→ If you choose the **Confirm** button, the notification is marked as read and the notification icon is displayed without any number or with the number of remaining pending notifications.

→ If you choose the **Delete** button, the notification disappears.

About the Notifications screen

From the **Notifications** screen, you can view the number and type of pending notifications, as well as any related comments.



A Number of unread notifications of each type:
- Red: high-severity notifications
- Orange: medium-severity notifications
- Gray: low-severity notifications

B Check box indicating that the notification has been read.

C Number of items affected by the corresponding notification.

Notification screen

Related topics

- Warning management (709)

Assigning and managing shortcuts

You can assign up to 25 shortcuts to your most frequently used screens to be able to access them quickly from the **Overview** screen.

To assign or delete a shortcut

1 Go to the screen that you want to assign to your favorites list, and then choose the ★ icon.
→ A bookmark for the selected screen is displayed in the **Favorites** panel of the **Overview** screen.
→ The star icon turns black.

2 To delete the shortcut, choose it from the **Favorites** panel in the **Overview** screen, and then choose the button.

To sort shortcuts

1 In the **Overview** screen, go to the **Favorites** panel.

2 Select the check box of the item that you want to move.

3 Choose the buttons to move it up or down in the list.

Related topics

- List of common icons (41)

Navigating through tabs, menus, and screens

You can navigate through tabs, menus, and working screens to perform tasks.

You can access the tabs, menus, and screens associated with your user profile. Therefore, some of the described items may not be visible to you.

Tabs

The working space includes four tabs to perform different actions:

- **Main**: it allows you to perform daily tasks, such as entering, processing, and printing orders.
- **Administration**: it allows you to perform configuration tasks.
- **Monitoring**: it allows you to check the software performance.
- **Search**: it allows you to quickly find orders and patients.

Keyboard shortcuts for tab and menu navigation

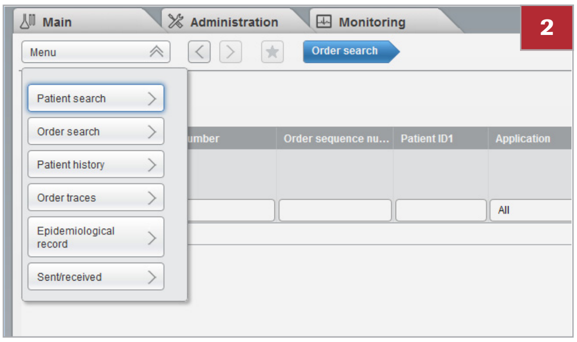
Use the following keyboard shortcuts to navigate through tabs and menus:

Item	Key	Action
Tabs	Ctrl+Page Down	Move to the right tab
	Ctrl+Page Up	Move to the left tab
Menus	Up Arrow	Move to the upper menu point
	Down Arrow	Move to the lower menu point
	Right Arrow	Open the submenu
	Left Arrow	Close the submenu
	Enter	Access the selected screen
	Esc	Close the menu

Keyboard shortcuts to navigate through tabs and menus

Searching for general information

You can search for patients and orders from the main screen without needing to access the corresponding submenus.



To search for general information

1 From the working space, choose the **Search** tab.

2 From the **Menu** drop-down list, choose one of the following options:

- **Patient search**: search for a given patient in the software.
- **Order search**: search for a given order in the software.
- **Patient history**: search for orders and tests associated with a given patient.
- **Order traces**: check the actions performed on a given order or on all the orders of a given patient.
- **Epidemiological record**: search for existing epidemiological records, declared microorganisms, etc.
- **Sent/received**: search for samples already sent or pending to be sent to health centers, as well as sample results received by health centers.

Related topics

- Searching for an order (62)
- Viewing order traces (62)

Filtering

Several screens in the software include tables displaying orders, patients, and tests, among others. Also, some drop-down lists contain long lists of items to choose from. You can filter the items on such tables or drop-down lists to find the information you need more easily.

Wild-card characters in filter fields

When entering text in filter fields, you can use the following wild-card characters:

- * matches one or more characters. For example, in the **Order ID** filter field, enter GL201307* to obtain the available Order IDs starting with this sequence number, such as GL20130710 and GL20130711.
- ? matches a single character. For example, in the **First name** filter field, enter J?an if you do not know if the patient's name is Joan or Juan.

In this section

Filtering drop-down list values

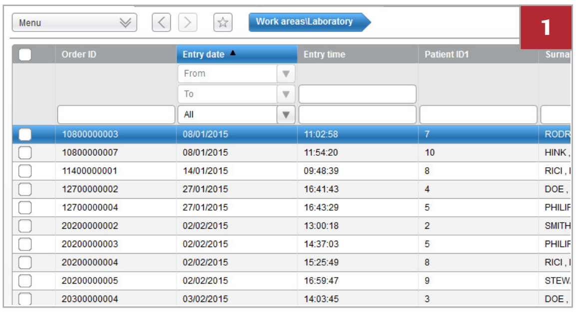
You can reduce the values displayed in drop-down lists to find the desired value easily.

To filter drop-down list values

1 From any drop-down list, enter the desired characters to narrow down your search.
   - If you are uncertain about some characters, enter wild-card characters.

2 Press Enter.

Filtering table information



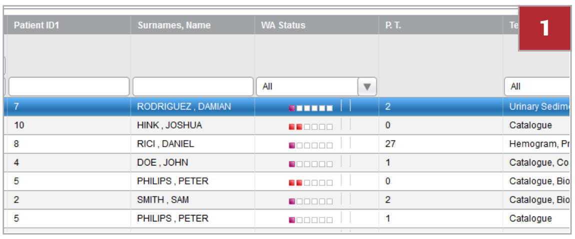
You can reduce the information displayed on tables to see only the items that you need.

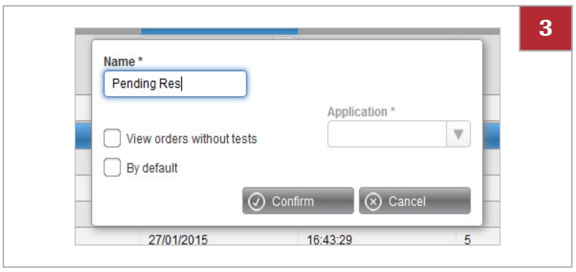
To filter table information

1 From any screen, choose the **Filter** button.
   → The available filter fields and drop-down lists are displayed.

2 Choose the desired filters, and then choose the **Apply** button.

Saving a filter





You can save frequently used search configurations to easily apply them when you access the screen again.

To save a filter

1 From any screen, choose the desired filters. Then, choose the **Apply** button.

2 Choose the **Capture filter** button.

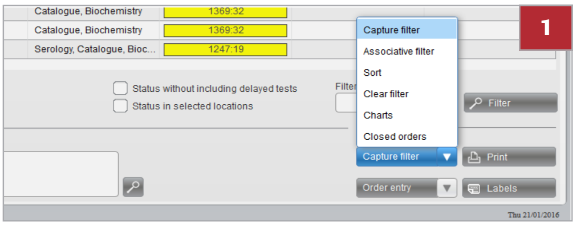
3 In the callout, enter the following:
   - **Name** of the filter.
   - **By default** check box: the filter is automatically applied whenever you access the screen.
   - **View orders without tests** check box and **Application** drop-down list (only for work areas): the filter shows the orders belonging to the selected module that do not contain tests.

4 Choose the **Confirm** button.
   → The new filter is displayed in the **Filter** drop-down list.

Related topics

- Deleting a saved filter (38)

Deleting a saved filter



You can delete a saved filter when you no longer need to apply it or you have to make changes in the search configuration.

To delete a captured filter

1 From the **Filter** drop-down list, choose the filter you want to delete.

2 Choose the **Clear filter** button, and then confirm that you want to delete the filter.

The **Clear filter** button can be displayed in a drop-down list depending on the type of screen.

Sorting and exporting table information

Several screens in the software, such as work area or validation screens, include tables displaying orders, patients, and tests, among others. You can sort the items on such tables to display them in certain ways, only the information you need, as well as export them to a convenient format.

In this section

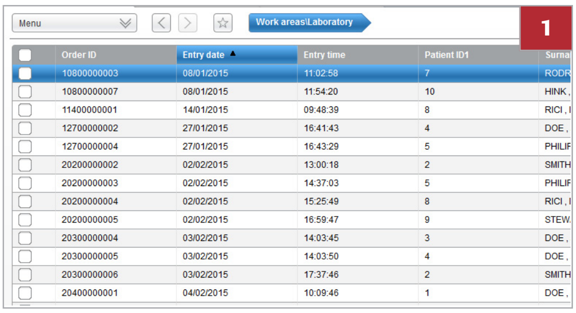
Sorting table information

You can quickly sort table items in ascending or descending order.

Table items are sorted using the ASCII-code order. Therefore:

- Digits come before letters.
- Numbers are sorted as strings. For example, 02, 2, 10 are sorted as follows: 02, 10, 2.
- Non-ASCII characters, such as *ñ*, are placed at the end.

To sort table items



1 Choose the column header to sort the desired items in ascending order.

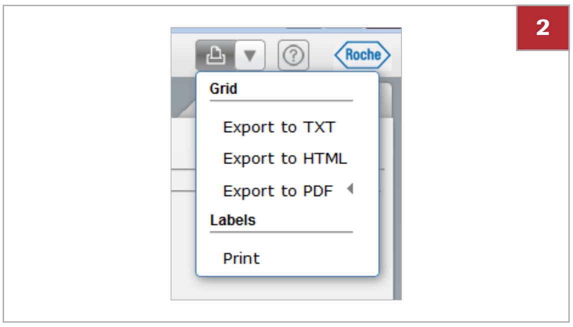
2 Choose the column header again to sort the items in descending order.

Exporting tables

From the global information area, you can export the information displayed on a table to different file formats.

To export tables

1 From the global information area, choose the Print drop-down list.



2 From the **Grid** group box, choose one of the following options:
   - **Export to** TXT: to produce a text file using the current browser.
   - **Export to** HTML: to produce a web file using the current browser.
   - **Export to** PDF in **Vertical** or **Horizontal** format: to produce a PDF file using the current PDF viewer.

   The button performs the last selected action. To print tables again, choose it or press F5.

   → The table is exported with the information sorted as displayed on the screen.

About the common interface items

In this section

List of common function keys

Use your keyboard to perform a series of actions in the software.

Common function keys

You can use these function keys to perform tasks throughout the software.

Screen-specific function keys are described in the corresponding tasks.

Key	Corresponding buttons	Action
F1	-	Opens the User Assistance.
F2	**Confirm** or **Save** buttons	Saves data.
F3	**Delete** button	Deletes data.
F4	**Cancel** button	Undoes changes.
F5	 button	Performs the last action selected from the  drop-down list, that is, printing labels or tables.
F6	 button	Returns to the previous screen.
F7	**Add** button	Enables the configuration area to assign a new item in the **Administration** tab.
F8	**Filter** and **Apply** buttons	Enables or applies filters.
F9	-	Enables the configuration area to edit a new item in the **Administration** tab.
F10	**Menu** drop-down list	Opens and closes the main menu.

Common function keys

List of common icons

Module icons

These icons indicate that the adjacent item belongs to a specific software module.

Icon	Description
	General Lab module
	Microbiology module
	Shared between the General Lab and the Microbiology module

Module icons

Icon	Description
	Emergency Lab module
	Lab Flow module
	Total Quality Management module

Module icons

Routine tasks

General tasks

In this chapter

2

Viewing and assigning comments

You can provide additional information about a patient, order, or test to a Microbiology tree item so that it is taken into account when validating results.

You can assign comments from various screens in the software, such as the **Order entry** or **Validation** screens. Such information can be accessed whenever the relevant comment icon is displayed.

In this section

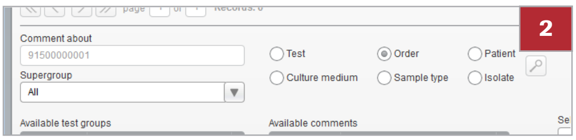
Assigning coded comments

You can quickly assign standard comments, previously configured, to tests, orders, patients, culture media, samples, and isolates.

You can assign comments from various screens in the software, such as the **Order entry** or **Validation** screens. Such information can be accessed from one the following comment icons: , , .

To assign coded comments

1 Choose the **Comment** button.

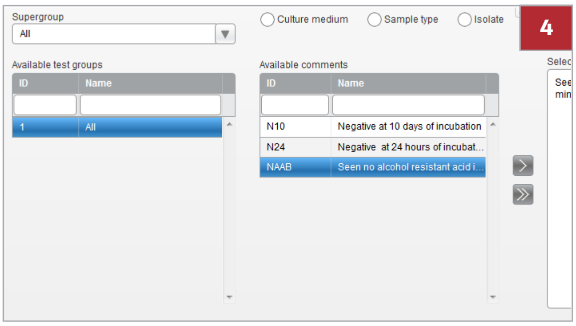


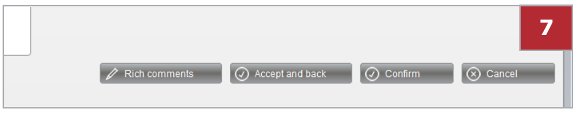
2 From the **Comment** screen, choose one of the following options to decide where the comment is assigned:
- **Patient**
- **Order**
- **Test**

  or, only for Microbiology:
- **Culture medium**
- **Sample type**
- **Isolate**

  This option will be automatically filled according to the icon you choose to enter the screen.

3 If necessary, choose the button to search for the specific item you want to assign the comment to.





4 From the **Supergroup** drop-down list, choose the relevant comment supergroup.

→ The **Available test groups** and **Available comments** group boxes display the available comments.

5 Double-click the comment you want to assign.

6 Optionally, attach a file.

7 Do one of the following:

- Choose the **Accept and back** button to save the comment and return to the working screen.
- Choose the **Confirm** button to save the comment and perform other actions, such as assigning another comment, viewing the comment attachment, sending the comment to the printer or host, and so on.

Assigning rich-text comments

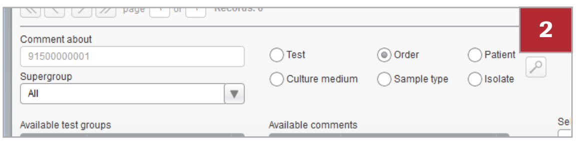
You can enter free-text comments or customize available coded comments.

You can assign comments from various screens in the software, such as the **Order entry** or **Validation** screens. Such information can be accessed whenever the relevant comment icon is displayed.

▸ To assign rich-text comments

1 Depending on your configuration, choose one of these buttons:

- **Comment**: proceed with step **2**.
- **Rich text comments**: proceed with step **5**.



2 From the **Comment** screen, choose one of the following options to decide where the comment is assigned:

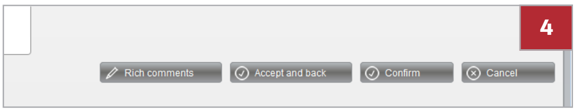
- **Patient**
- **Order**
- **Test**

or, only for Microbiology:

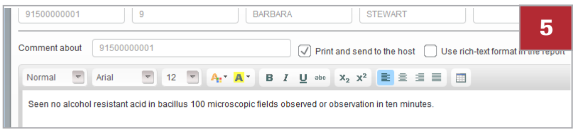
- **Culture medium**
- **Sample type**
- **Isolate**

ℹ This option will be automatically filled according to the icon you choose to enter the screen.

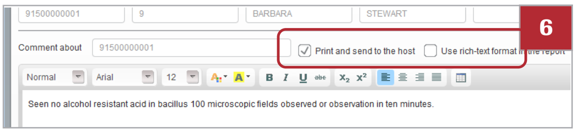
3 If necessary, choose the button to search for the specific item you want to assign the comment to.



4 Choose the **Rich text comments** button.



5 Do one of the following:
- In the comment panel, enter your free-text comment and edit its format.
- If you want to edit an available coded comment, choose the **Cod. comments** button, double-click the desired comment, and then choose the **Confirm** button.



6 Optionally, select the following check boxes:
- **Print/Send to host** to print the comment and send it to the host.
- **Use rich-text format in the report** to display rich text format in the printed report.

7 Optionally, attach a file.

8 Choose the **Confirm** button to save the comment and return to the **Comment** screen.

List of comment icons

Comment icons are displayed next to the order, test or patient ID, or in the **C** or **Type** columns if shown on a table.

Choose the relevant comment icon to access the **Comment** screen and assign a new comment or display the ones already available. You can also place the mouse pointer over the relevant comment icon to display a tooltip with the full comment.

Icon	Action performed or meaning	Screens where it can be found
	Assigns a comment to an order.	**Validation** screens
	Assigns a comment to a patient.	**Validation** screens.
	Assigns a comment to a test.	**Validation** screens.
	Displays the order comment and allows you to assign a comment to an order.	**Validation** and **Queries** screens.
	Displays the patient comment and allows you to assign a comment to a patient.	**Validation** and **Queries** screens.
	Displays the test comment and allows you to assign a comment to a test.	**Validation** and **Queries** screens.

Comment icons

Icon	Action performed or meaning	Screens where it can be found
	Displays the test, sample type, culture medium, or isolate comment when you hover over it.	**Seeding**, and **Validation** screens.
	Indicates that the comment comes from an instrument.	**Type** column on the **Comment**, and **Validation** screens.
	Indicates that the comment has been entered manually by a user.	**Type** column on the **Comment**, and **Validation** screens.
	Indicates that the comment has been entered automatically by the system.	**Type** column on the **Comment**, and **Validation** screens.

Comment icons

Printing barcode labels manually

From the global information area, you can manually print or reprint barcode labels for a batch of orders, tubes, or trays at any time.

You can also manually print barcode labels for the orders, tubes, or trays you are working with from other screens in the software.

In this section

Printing order labels

From the global information area, you can manually print or reprint barcode labels for a batch of orders at any time.

You can choose if you want to print the labels of all the orders, regardless of whether they exist or not, or print only the existing ones.

To print order labels manually ▶ (51)

To print labels of existing orders manually ▶ (52)

☐ Label printers and label printing options configured by the administrator

▶ To print order labels manually

1 From the global information area, choose the button.

2 From the **Printer** drop-down list, choose the desired printer.

3 From the **Labels** group box, choose the **Sequential IDs** option.

4 In the **Order range** group box, choose the date and order sequence numbers ranges.

2 General tasks

5 In the **Options** group box, do the following:
- From the **Label** drop-down list, choose the type of label to be printed for each order.
- In the **Number of copies** field, enter the number of copies to be printer for each order.

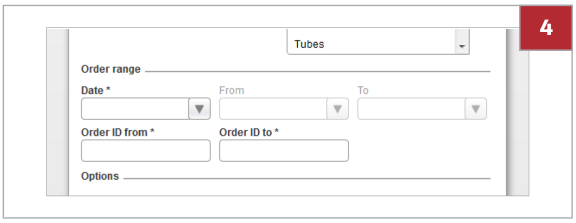
6 Choose the **Print** button.
- 🛈 You can cancel the printing process at any time by choosing the **Cancel printing** button.

To print labels of existing orders manually

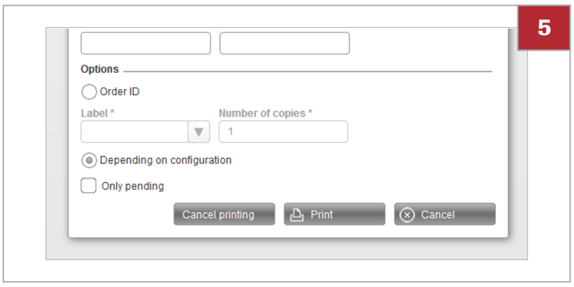
1 From the global information area, choose the button.

2 From the **Printer** drop-down list, choose the desired printer.

3 From the **Labels** group box, choose the **Existing orders** option.



4 In the **Order range** group box, choose the date and order ID ranges.
- 🛈 In the **Order ID from** and **Order ID to** fields, you must enter sequence numbers, instead of full order IDs.



5 In the **Options** group box, do one of the following:
- To define the type of label and the number of copies to be printed for each order, choose the **Order ID** option.
- To print the type of label and the number of copies configured by the administrator, choose the **Depending on configuration** option.
- 🛈 This latter option allows you to print order and container labels, as well as labels for Microbiology items, such culture media, secondary tests, and so on.

6 Optionally, to print labels only for pending orders, choose the **Only pending** option.

7 Choose the **Print** button.
- 🛈 You can cancel the printing process at any time by choosing the **Cancel printing** button.

Related topics

- List of manual print options for barcode labels (56)

Printing tube labels

From the global information area, you can manually print or reprint tube labels for existing orders.

- ☐ Label printers and label printing options configured by the administrator
- ☐ Workplaces configured by the administrator (for some options)

To print tube labels manually

1 From the global information area, choose the button.

2 From the **Printer** drop-down list, choose the desired printer.

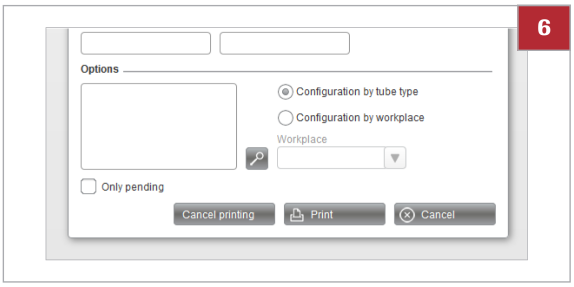
3 From the **Labels** group box, choose the **Tubes** option.

4 In the **Order range** group box, choose a date range and then do one of following:

- To define a range based on order sequence numbers, choose the **Sequential ID** option and enter the **From** and **To** fields.
- To define a range based on full order IDs, choose the **Order ID** option and enter the **From** and **To** fields.

The latter option allows you to define an alphanumeric range. That is, that you can also enter any prefix, suffix, or fixed text included in the order ID.

5 To select the types of tube to be labeled, choose the button.



6 Choose one of the following options:
- **Configuration by tube type**: To print labels according to the configuration performed by the administrator for order entry.
- **Configuration by workplace**: To print labels according to the configuration performed by the administrator for the selected Lab Flow workplace.

7 Optionally, to print labels only for pending tubes, choose the **Only pending** option.

8 Choose the **Print** button.

ℹ You can cancel the printing process at any time by choosing the **Cancel printing** button.

Printing tray labels

From the global information area, you can manually print or reprint tray labels for the desired target and workplace.

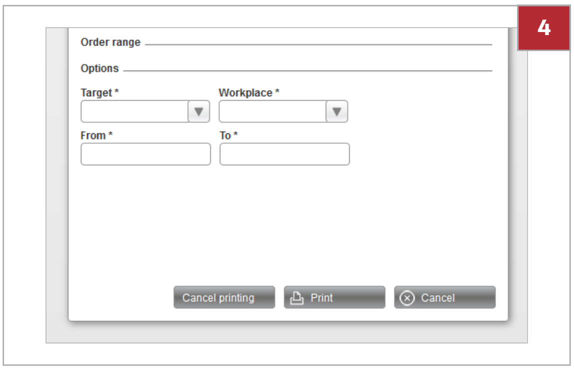
☐ Label printers configured by the administrator

To print tray labels manually

1 From the global information area, choose the button.

2 From the **Printer** drop-down list, choose the default printer.

3 In the **Labels** group box, choose one of the following options:
- **Tray**: To print Lab Flow tray labels
- **Sample workflow tray**: To print sample workflow engine tray labels



4 From the **Target** and **Workplace** drop-down lists, choose the target and workplace for which tray labels are printed.

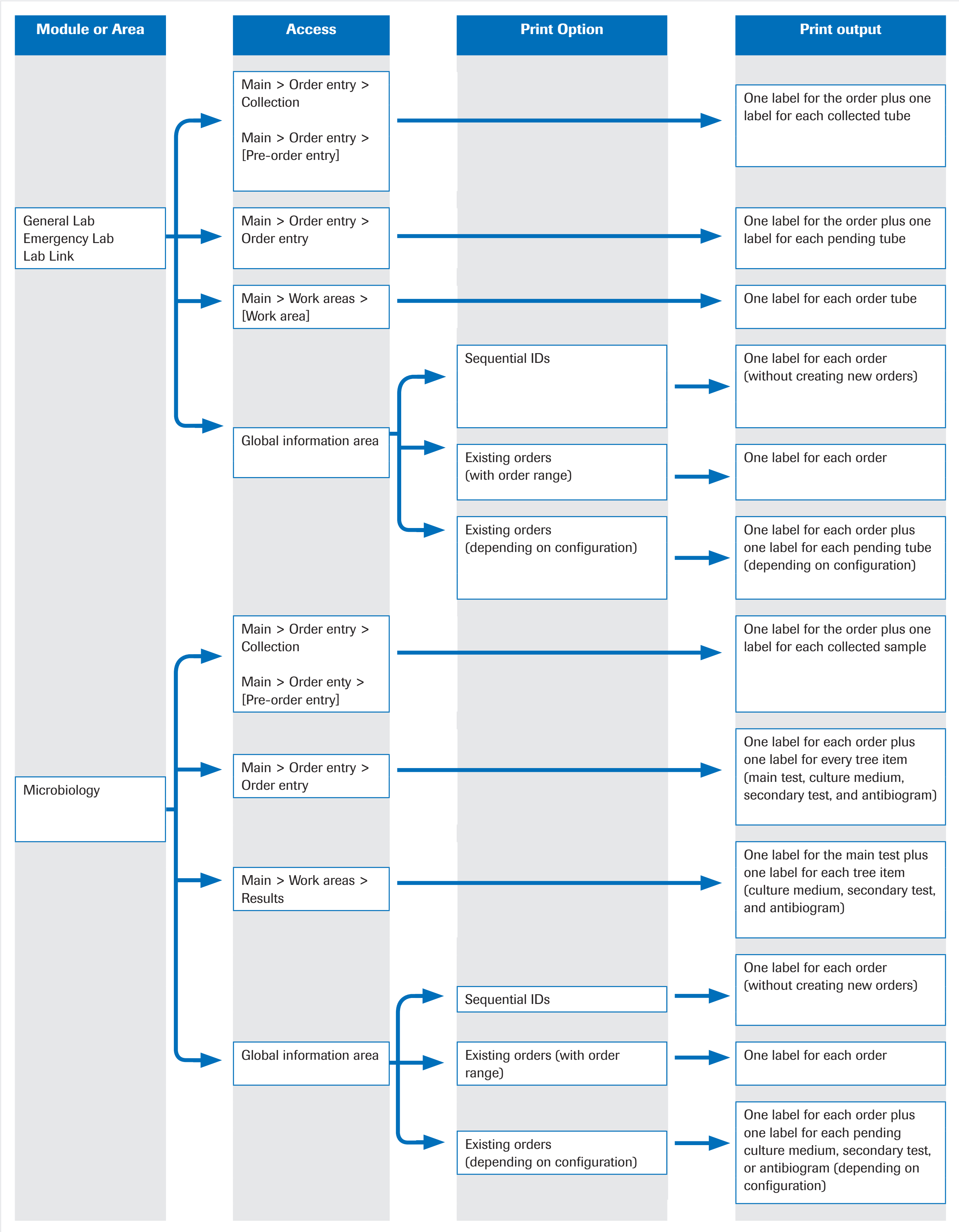
5 In the **From** and **To** fields, enter the tray barcode range to print.

6 Choose the **Print** button.

You can cancel the printing process at any time by choosing the **Cancel printing** button.

List of manual print options for barcode labels

You can manually print barcode labels for the orders, tubes, and samples you are working with in different ways, depending on the module and screen you are in.


Module or Area
Access
Print Option
Print output
Main > Order entry > Collection
Main > Order entry > [Pre-order entry]
One label for the order plus one label for each collected tube
General Lab
Emergency Lab
Lab Link
Main > Order entry > Order entry
One label for the order plus one label for each pending tube
Main > Work areas > [Work area]
One label for each order tube
Sequential IDs
One label for each order (without creating new orders)
Global information area
Existing orders (with order range)
One label for each order
Existing orders (depending on configuration)
One label for each order plus one label for each pending tube (depending on configuration)
Main > Order entry > Collection
Main > Order enty > [Pre-order entry]
One label for the order plus one label for each collected sample
Microbiology
Main > Order entry > Order entry
One label for each order plus one label for every tree item (main test, culture medium, secondary test, and antibiogram)
Main > Work areas > Results
One label for the main test plus one label for each tree item (culture medium, secondary test, and antibiogram)
Sequential IDs
One label for each order (without creating new orders)
Global information area
Existing orders (with order range)
One label for each order
Existing orders (depending on configuration)
One label for each order plus one label for each pending culture medium, secondary test, or antibiogram (depending on configuration)

Patient management

Each patient must have a record in the database before tests can be performed. Creating a record means that patient information is there for future reference, allowing you to monitor how tests results and diagnoses evolve.

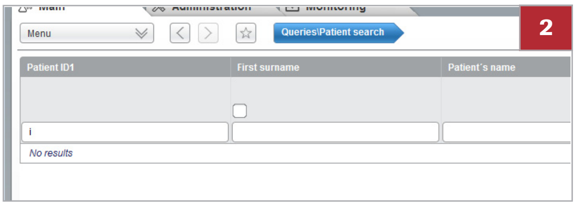
In this section

Searching for a patient

You can search for patients to edit their record, check their details, patient ID, order information, or results.

To search for a patient

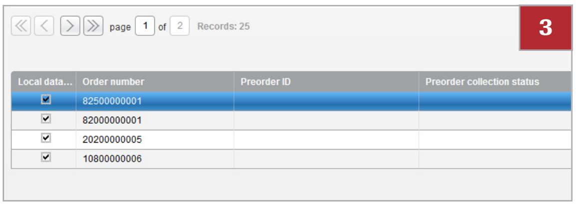
1 Choose **Main > Queries > Patient search**.



2 Enter the patient demographics you have available, and then press Enter.

- Optionally, select the check box above the Last name field to search for all patients whose first name or last name match the entered patient demographics.

It is recommended that you use wild-card character.



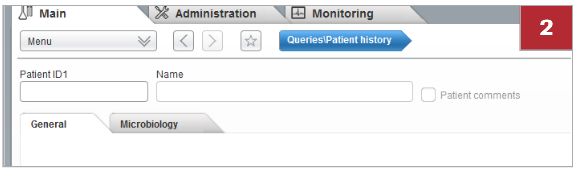
3 Choose the desired patient

→ The bottom part of the screen displays the orders and pre-orders information belonging to that patient.

Related topics

- Filtering table information (37)

Viewing a patient's history



You can consult a patient's history to see tests, test statuses, and evolution charts. You can only view records stored on the local database.

▸ To view a patient's history

1 Choose **Main > Queries > Patient history**.

2 To view all orders belonging to that patient, enter the patient ID, and then press Enter.

3 Optionally, choose one of the following buttons:
- **View marked** button: to view the selected order.
- **View all** button: to view all the orders belonging to the patient.

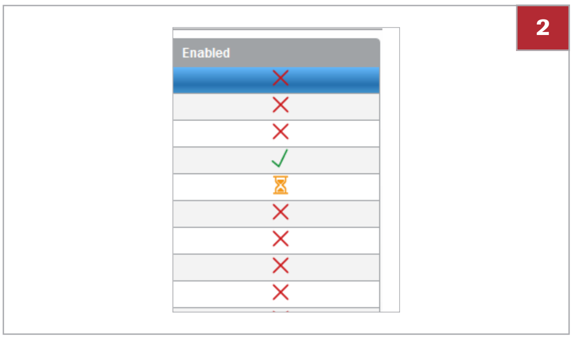
Checking connections

In this section

Checking the host connection

Occasionally you may need to check the connection between hosts and the software. In most cases, you can fix connection problems yourself.

To check the host connection



1 Choose **Monitoring > HCA > Host status**.

2 To view the status of each host, look at the **Enabled** column.
   - If there is a green tick, the host is connected and you do not have to do anything.
   - If there is a sand clock, the host is waiting to establish the definitive connection. Stop the connection and start again.
   - If there is a red cross, double-click the host to enable it.

Searching for order and patient information

In this section

Searching for a pre-order

You may need to check a pre-order to see which tests were ordered, which samples were extracted and when, and which samples are pending.

To search for a pre-order

1 Choose **Main > Queries > Pre-orders search**.

2 To search for a pre-order, press Enter or choose the **Apply** button.
   - Optionally, fill in the information fields to search for an specific pre-order.
   - In the **Collect. status** column, you can check the status of the pre-order.

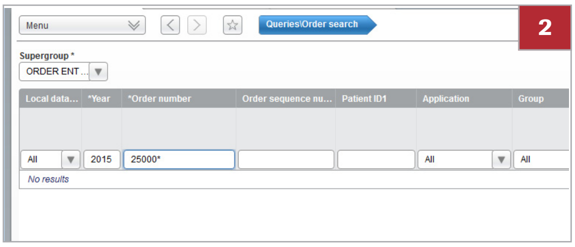
3 Optionally, to check the details or update the status of a pre-order, choose the desired pre-order and then choose the **Collection** button.

Related topics

- Collecting a sample (72)

Searching for an order

You can check information and the status of a previously created order to see which tests were performed and which are pending.



▸ To search for an order

1 Choose **Main > Queries > Order search**.

2 From the **Supergroup** drop-down list, choose the supergroup the order belongs to.

3 Enter the year the order was created.
   ❶ By default the current year shows up. You can edit it if necessary.

4 Enter either the order ID, patient ID, or tube ID, and then press Enter.
   ❶ If you are unsure of the data, enter an asterisk (*) in any of these fields to search for all information.

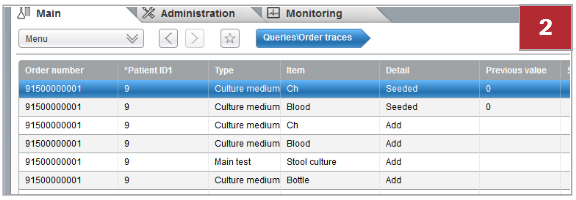
5 To view the desired order, select it and choose the **Results** button.

Viewing order traces

You may need to consult the order traces to view the status of an order or see which analyzers the samples passed through. You can also check if any errors occurred during any part of the process.

Additionally, in the **User ID** column you can see who performed each action. When the software performs the action, it displays one of the following options:

- “SYSTEM_RULENGINE”: actions performed by rule engine
- “SYSTEM_DAILYPROC”: actions performed by the end-of-day process
- "SYS_ICA_*DriverID*" or “CSUSER”: actions performed by an instrument
- "SYS_HCA_*HostName*": actions performed by a host
- “~System~”: other actions performed by the software, e.g. formula calculations



To view order traces

1 Choose **Main > Queries > Order traces**.

2 Enter the patient and/or order demographics you have available, and then press Enter. Select also one of the following actions to be displayed:

- **All**: All actions.
- **Without CON**: All actions except for the consulting actions.
- **ACT**: Open order.
- **ADD**: Adding actions.
- **CON**: Consult demographics which have not been automatically assigned by the software.
- **DIS**: Close order.
- **DEL**: Delete order.
- **MOD**: Modifying actions. Includes the change of location.
- **REC**: Order retrieved from recycle bin.
- **PREJ**: Test pending rejection.
- **REJ**: Rejected test.
- **DPER**: Order deleted permanently.
- **PRW**: Previewed order. To preview an order, choose the **Preview** button, or choose the **Overview** button in Microbiology module.

You can track tubes at test level by viewing the **[Location]**. The **[Location]** lets you know where the test is performed.

Related topics

- About location and multisite (30)

Releasing tests or orders

Processing an order from any screen in the software can cause one or several tests to become disabled. The software allows you to release the orders or tests that are automatically locked.

☐ **Work with orders by demographics** rights

To unlock tests or orders

1. Choose **Monitoring > Order release**.
2. In the **Order** field, enter the order ID of an order with locked tests.
3. Choose the **Apply** button to display the locked order and its tests.
4. Select the check box next to the desired order or test, and choose one of the following buttons:
   - **Release order**: to restore the order.
   - **Release**: to restore the selected tests.

   Remember that the released tests or orders can be processed by both the first user accessing them after their release and the user who caused them to become locked.

Pre-analysis

In this chapter

3

Order and pre-order management

Pre-orders and orders must be created for patients existing in the database before tests can be performed. If tests are required urgently, you can create orders without patients but these tests cannot be medically validated until a patient is assigned.

⚠ **CAUTION**

Order IDs

Risk of patient results being confused with another patient's results.

- The system allows you to define the fields forming the order ID (fixed texts, dates, prefixes...) and the modules where they are used. To enter and retrieve orders correctly, remember to use the specified format for the module you are in.

Remember that the software does not recognize any zeros leading an ID.

Due to the recycling of order IDs, you may get more than one result when you enter an order ID. A callout displays any matching orders in chronological order. Choose the desired order to continue.

⚠ **CAUTION**

Reusing tube IDs

Risk of results being confused.

- It is recommended that you define a different tube ID for each sample.

  Tube IDs can only be reused once the maximum time period configured in the automatic order closing parameter is exceeded, otherwise patient information and results could become confused.

⚠ **WARNING**

Entering erroneous order demographic data

Risk of delayed or wrong results

- Ensure that the mandatory demographic fields are entered correctly.

> ⚠ **CAUTION**
>
> **Deleting orders**
>
> Risk of results and data being confused with results and data belonging to another patient.
>
> - When deleting an order, all samples and tubes belonging to this order must also be removed from the laboratory and the system.

It is recommended that you use reading devices (optical readers, barcode readers, card readers, etc.) to enter data. Check these devices are operating correctly before using them in real environments

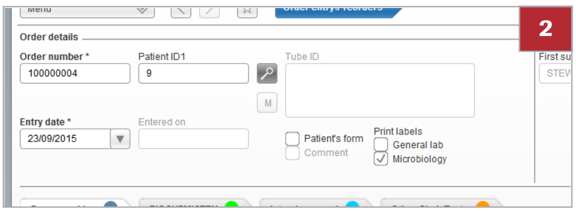
In this section

Creating a pre-order

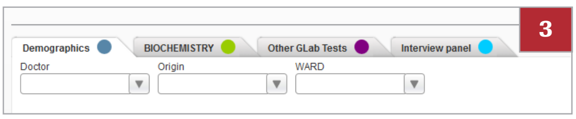
Physicians must give patients a pre-order with the list of tests to be performed. This form is delivered to the laboratory so the samples can be collected.

▸ To create a pre-order

1 Choose **Main > Order entry > [Pre-orders]**.

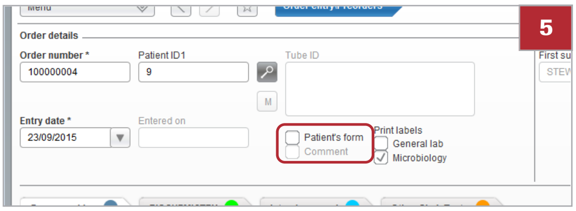


2 To fill in the **Patient ID1** field, do one of the following:
   - Enter the patient ID, and then, press Enter.
   - Enter the patient surname, and then choose the button.
   - ❶ Depending on configuration, you can register new patients in the software.



3 In the demographics tab, enter the order demographics.

4 Choose each of the remaining tabs, and then fill in the corresponding test information.
   - If applicable, answer the questions concerning the patient.
   - ❶ Depending on the configuration in your center, the remaining tabs may vary.



5 To give the patient a printout of the form, select the **Patient's form** check box.

 This form is presented to the phlebotomist before collection.

6 Choose the **Save** button.

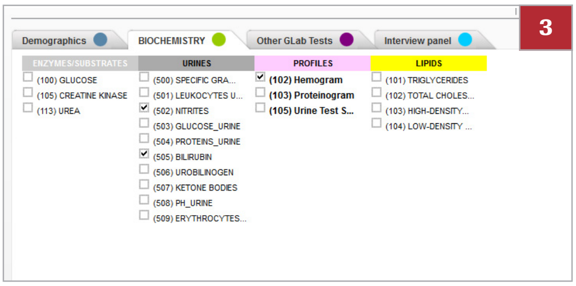
Editing a pre-order

If you want to assign more tests, delete any unnecessary tests, or change information in a pre-order, you can edit it.

To edit a pre-order by pre-order ID

1 Choose **Main > Order entry > [Pre-orders]**.

2 Enter the pre-order ID, and then press Enter.



3 In each tab, assign or delete the necessary tests, and then choose the **Save** button.

To edit a pre-order by Patient ID1

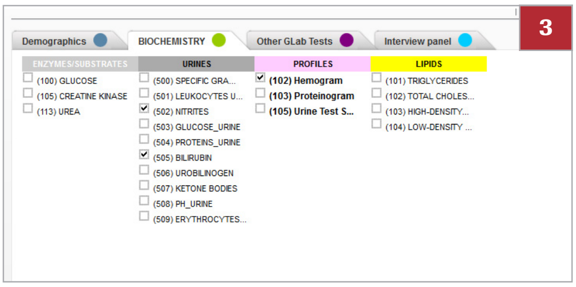
1 Choose **Main > Order entry > [Pre-orders]**.

2 In the **Patient ID1** field, enter the patient ID and press Enter.

→ The **Patient pre-orders** screen opens.

3 Choose the pre-order you want to edit and choose the **Select** button.

→ The pre-order information is loaded.



4 In each tab, assign or delete the necessary tests, and then choose the **Save** button.

Canceling a single pre-order

Sometimes samples cannot be extracted or a patient forgets to bring a sample and so you decide to cancel the pre-order. You can only cancel open pre-orders. Once extractions are performed, the pre-order is closed.

▸ To cancel a single pre-order

1 Choose **Main > Order entry > [Pre-orders]**.

2 Fill in the Order ID field, and then press Enter.

3 Choose the **Delete** button.

Deleting or restoring pre-orders

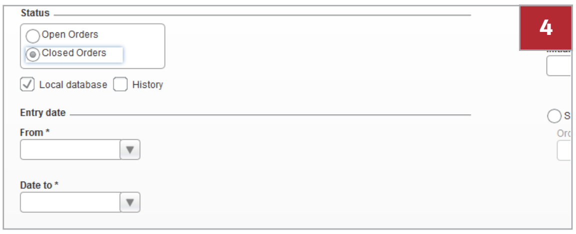
If a pre-order could not be completed because not all of the samples could be collected, you can delete it. Save time by deleting several as a batch. If you need to check information in a deleted pre-order e.g. the samples requested, patient information, you can restore it.

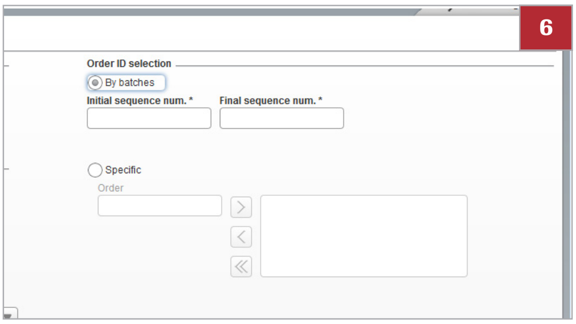
▸ To delete or restore pre-orders

1 Choose **Monitoring > Delete/restore orders**.

2 In the **Application** field, select the module where the pre-orders were created.

3 Indicate the status of the pre-orders by choosing at least one of the following options:
- **Not collected**: no samples were collected.
- **Partly collected**: some samples were collected.
- **Fully collected**: all samples were collected.





4 Indicate whether the pre-orders are open or closed.

5 If you chose the **Closed orders** option in step **4**, choose one of the following options:

- **Local database**: if the pre-orders are stored locally.
- **History**: if the pre-orders were moved to the historical database.

6 Enter the date or range of dates that the pre-orders were created on.

7 Choose one of the following options:

- **By batches**: to delete or restore several pre-orders.
- **Specific**: to delete or restore a specific pre-order.

8 If you chose the **By batches** option in step **7**, enter the initial and final sequence number of the pre-orders to be deleted or restored.

9 If you chose the **Specific** option in step **7**, enter the order ID, and then choose the > button.

10 Choose one of the following options:

- **Delete**: to delete the select pre-orders.
- **Restore**: to restore the selected pre-orders.

Handling samples

In this section

Collecting a sample

Samples must be collected from patients according to the tests ordered by the physician. Once all samples are collected for a pre-order, you can enter this information in the system to close the pre-order and enable the analysis.

Depending on the configuration, the software automatically assigns a suggested tube ID to the tubes or if there are pre-labeled tubes, it allows you to scan or enter the desired tube ID.

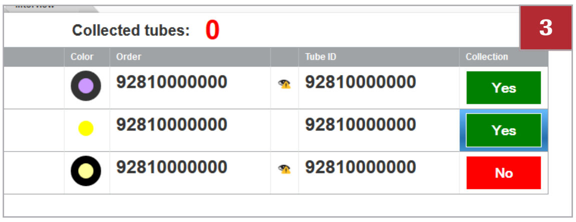
⚠ CAUTION

Reusing pre-order IDs

Risk of the ID being linked to the patient who was previously assigned this ID instead of the current patient, producing incorrect results.

- Choose the **Collect** button before printing and attaching sample labels.
- It is recommended that you refresh the screen to ensure you are viewing the most up-to-date data.

If you create a pre-order with a test associated with a tube, and afterwards you create a different version of this test associated with a different tube, the test created with the pre-order will still be associated with the first tube.



‣ To collect a sample

1 Choose **Main > Order entry > Collection**.

2 Scan the barcode label or enter the pre-order ID, and then press Enter.

- If the software does not automatically load the tube ID in the **Tube ID** column, enter or scan a tube ID.

→ The status of the tube in the **Collection** column is automatically changed to green.

3 The boxes displayed in the **Collection** column indicate the status of the sample. If necessary, choose each box to change its color to one of the following:

- Green: Sample collected.
- Red: Sample not collected.
- Gray: Sample already collected. This option cannot be modified.

4 To save the samples' status and print the labels of the collected samples, choose one of the following buttons:

- **Collect**: the same pre-order is reloaded with the updated information. The status of samples marked as collected is displayed in gray.
- **Collect and next**: the information of the pre-order is cleared and you can proceed with the next pre-order.

ℹ You might be asked to answer open questions concerning the patient. Enter the answers, and then choose the **Collect** button

5 Optionally, choose the **Relabel** button to reprint the labels.

6 Optionally, choose the **Add issue** button to report any issues in the **Total Quality Mgt.** module.

Marking samples as received

The technician must check that the right amount of samples are received to perform the tests requested by the doctor.

Depending on the configuration, the software automatically assigns a suggested tube ID to the tubes. If there are pre-labeled tubes, it allows you to scan or enter the desired tube ID.

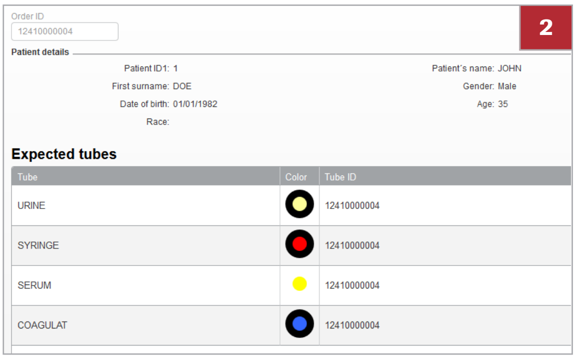
Some instruments or workflows cannot process different tubes or sample types with a shared identifier. To differentiate them, you can assign a different tube ID and print a label for each sample received.

- ☐ At least one order
- ☐ Configured printer

To mark samples as received

1 Choose **Main > Order entry > Reception**.

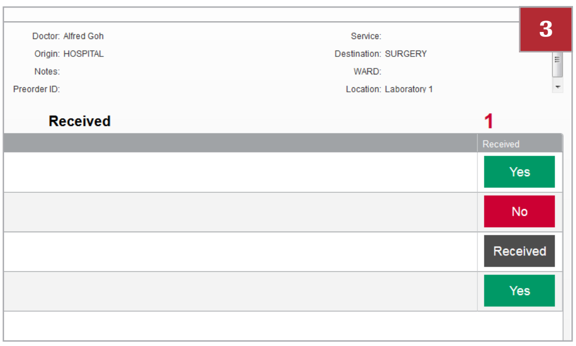
You can also access this screen from the **Main > Order entry > Order entry** screen.



2 Scan the barcode or enter the order ID, and then press Enter.

- If the software does not automatically load the tube ID in the **Tube ID** column, enter or scan a tube ID.

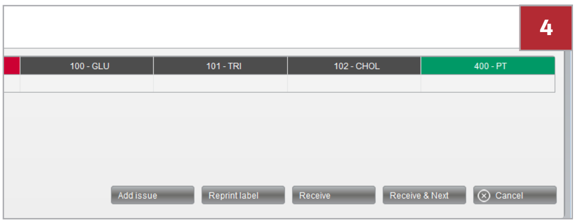
→ The status of the tube in the **Received** column is automatically changed to green.



3 The boxes displayed in the **Received** column indicate the status of the tube. If necessary, choose each box to change its color to one of the following:

- Green: Tube received.
- Red: Tube not received.
- Gray: Tube already received. This option cannot be modified.

→ If you change the status of a tube, the software automatically changes the status of the tests associated with that tube, which are displayed below.



4 To save the sample status and print the labels of the received samples, choose one of the following buttons:

- **Receive & Next**: the information of the order is cleared and you can proceed with the next order.
- **Receive**: the same order is reloaded with the updated information. The status of samples marked as received is displayed in gray.

5 Optionally, choose the **Reprint label** button to reprint the labels.

6 Optionally, choose the **Add issue** button to report any issues in the **Total Quality Mgt.** module.

Post-analysis

In this chapter

4

Reports

In this section

About report printing

Once patient results are entered in the software, a report must be sent to the physician. The physician can then make a diagnosis and prescribe medication if necessary. A report can also be sent to the patient.

Reports can be generated manually or automatically, for a single order, or for a batch of orders. A final report is always printed by default for single orders unless the order status prevents it e.g. the order contains unvalidated tests. You can print reports from various screens and choose whether to print all tests or certain tests. This feature is useful for example if you have a shared order and you only need the results from one module.

Due to recycling order IDs, when you enter an order ID or sequence number, if more than one order is found, a callout appears displaying the orders in chronological order. The most recent is automatically selected but you can choose a different order if you want.

Report types

The following types of reports are available:

- **Pre-report**: To see the status of the order that you want to create a report for. You can select this option as many times as desired until a final report is printed or everything in the order is validated. In this case, a final report is printed.
- **Final report**: To print the final report for the desired order.

  If the software is configured to print only by order, the final report is printed when all the tests included in the order are medically validated.

  If the software is configured to print by test or group of tests, the report is printed every time a specific test or group of tests are medically validated.
- **Result reprint**: To reprint a final report. You can make any number of copies.

Fast printing

You can speed up the report printing process by defining a default filter with your desired settings on the **Report print** screen. Each user can define their own default filter.

Once the filter is created and set by default, every time you print manually, the report is sent to the specific print target (physically printed or PDF).

When printing a report, the software always tries to print a final report for the order or batch of orders. Otherwise, a pre-report or result reprint is printed.

If a report is not printed, you can check its status on the **Printing control** screen as no warning message is displayed if there are printing issues.

The "*****" character is displayed in a report in the following situations:

- When a test has a result, but the user does not have rights to view its specific information.
- When a test result is pending and the **Print non-validated tests as pending when the user is only allowed to view validated tests.** general parameter is disabled. To enable this parameter, contact your system administrator.

⚠ **WARNING**

Results

Risk of incomplete or delayed results.

- Check reports are configured correctly before starting to use the system.

Creating report filters

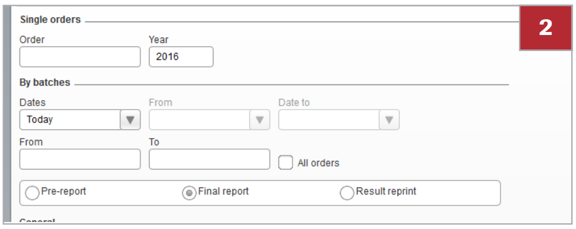
You can configure your desired printing settings by creating a report filter. The filtered report is sent to the desired print target when choosing the **Print** button on any screen.

This option allows you to print the report quickly without having to set the filters every time.

If the **Validate and sign** button is configured, it is recommended that you create a report filter to print reports directly.

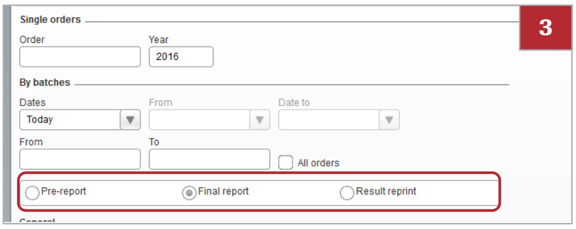
To create a report filter

1 Choose **Main > Report > Report print**:

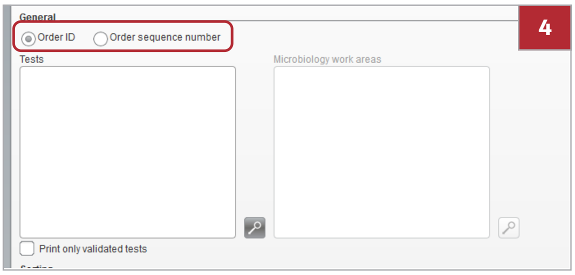


2 Depending on the number of orders you want to print, do one of the following:

- In the **Single orders** group box, enter the order ID or sequence number and the year the order was created.
- In the **By batches** group box, enter the date or date range. Then enter the initial and final order IDs or sequence numbers, or select the **All orders** check box.

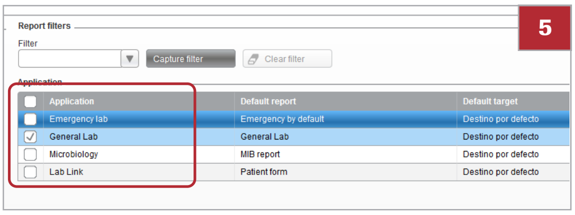


3 Select the type of report you want to print.

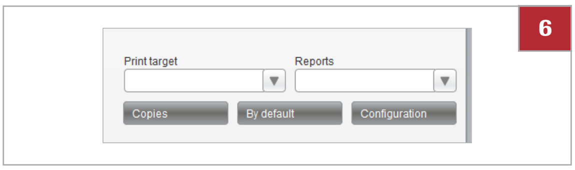


4 In the **General** group box, choose the **Order ID** or **Order sequence number** options of the orders you want to print reports for.

- Optionally, choose the button to select the tests you want to print.
- Optionally, select the **Print only validated tests** check box to include only validated tests in the report.Otherwise, if your selection includes tests that are not medically validated, the software always prints a pre-report.



5 In the **Application** group box, select the modules in which you want to print reports.

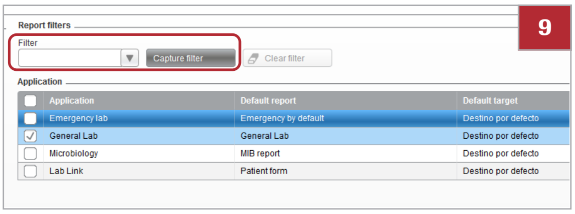


6 Optionally, from the **Print target** drop-down list, choose the printer you want to set as the default printer.

ℹ The default target of the selected application is used in case the **Print target** option is not configured.

7 Optionally, from the **Reports** drop-down list, choose the desired report template.

ℹ The default report of the selected application is used in case the **Reports** option is not configured.



8 In the **Sorting** group box, from the **Criterion no. 1** drop-down list, choose the desired demographic.

- Choose the button to select a demographic value.
- Optionally, from the **Criterion no. 2** drop-down list, choose the desired demographic and its value.

9 Choose the **Capture filter** button and, in the **Field name** field, enter the name you want to give to this filter.

- To make it the default filter, select the **Default filter** check box.

10 Choose the **Save** button.

Generating a report manually

Once patient results are entered in the software, a report must be sent to the physician. Reports can be generated manually or automatically for one order or for a batch of orders.

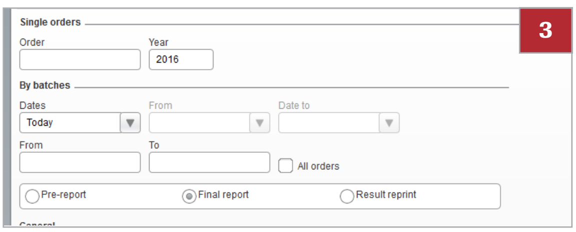
You can generate a report manually with or without a report filter:

- If you have defined a filter, with the fast printing feature, reports are sent to the specific print target with a predefined report layout.
- If you have not defined a filter, the **Report print** screen is displayed.

To generate a report manually without a report filter

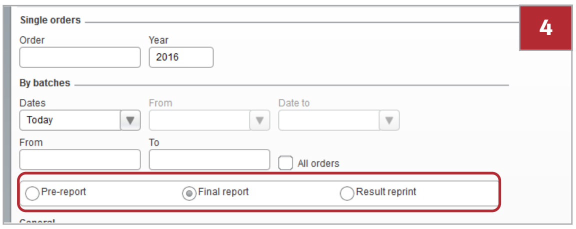
1 Choose the screen from where you want to print a report.

2 Choose the **Print** button.
→ The **Report print** screen is displayed.

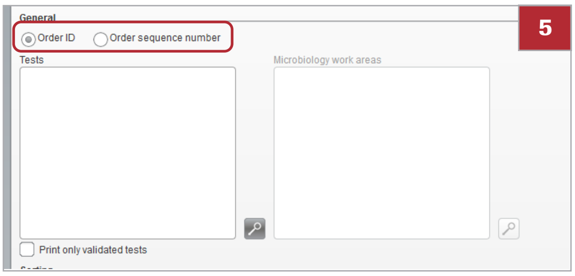


3 Depending on the number of orders you want to print, do one of the following:

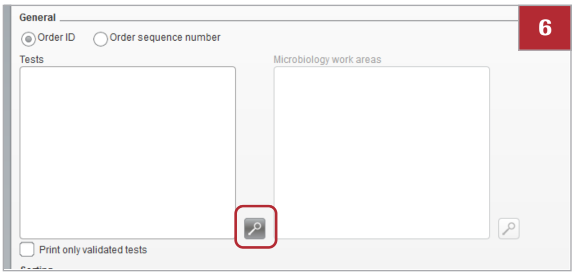
- In the **Single orders** group box, enter the order ID or sequence number and the year the order was created.
- In the **By batches** group box, enter the date or date range, and then enter the initial and final order IDs or sequence numbers or select the **All orders** check box.



4 Select the type of report you want to print.

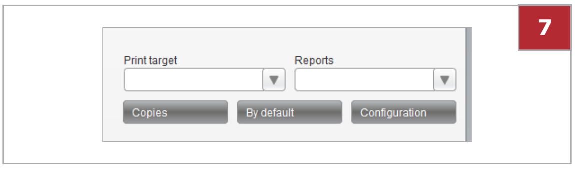


5 In the **General** group box, choose the type of order identifier you want to use to generate the report.



6 Choose the button to select the tests you want to print.

- Optionally, to only include validated tests in the report, select the **Print only validated tests** check box.



7 To send the report to a specific target, from the **Print target** drop-down list, choose the desired option.

8 From the **Reports** drop-down list, choose the desired report template.

9 Choose the **Print** button.
→ The report is printed.

10 Optionally, choose the **Printing control** screen to check the status of the report.

▸ To generate a report manually with a report filter

1 Choose the screen from where you want to print a report.

2 Choose the **Print** button.
→ The report is printed.

3 Optionally, choose the **Printing control** screen to check the status of the report.

Appendix

Index