

LABWORKS Enterprise LIMS

Mobile Application Guide

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Contents

System Requirements	3
Sign In	4
Synchronization	5
Home	6
Main Menu	7
Settings	8
General Settings	9
Authentication Settings	10
Connection Settings	13
Synchronization Settings	14
Synchronization Status	15
Samples	16
Sample Filters	17
Sample Search	18
Sample Details	19
Sample Analyses	20
Sample Images	21
Sample Attachments	22
Sample Location	23
Analysis Details	24
Analysis Legend	
Sample Legend	27

System Requirements

LABWORKS Enterprise LIMS Mobile Application allows you to work with the LABWORKS Enterprise LIMS using a device on Android or iOS. The communication between the mobile application and server uses Web Services hosted on a Web Server.

Please make sure that system components follow these requirements:

- IIS Web Server version: 10.0 or above.
- LABWORKS Enterprise LIMS web installer version: 6.10.1.13.
- LABWORKS Enterprise LIMS desktop application version: 6.10.0.59.
- Mobile device (phone or tablet):
 - On Android of version: 6 or above. (Recommended version: 9)
 - $\circ~$ On iOS of version: 12 or above
 - On Windows 10 (Created for Surface as a reference device)

The following information is required in order to access LABWORKS Enterprise LIMS:

- 1. URL-address of the LABWORKS Enterprise LIMS server
- 2. Database name, when there is more than one database available.
- 3. Login/password combination of your profile in the selected database.

Sign In

The landing screen of the mobile application is the **Sign In** screen.

You can access the connection settings by tapping the button on the right-hand side. Make sure that the Server Address is correct by tapping the "**Check Connection**" button.

Once you fill up the form and click the "**Sign In**" button, the system will validate provided credentials and navigate you to the **Synchronization** screen.



Synchronization

The mobile application has a synchronization mechanism that can be configured on the **Synchronization Settings** screen.

The application will always start the synchronization upon the first sign in.

You can hide the synchronization progress by tapping the "Sync in Background Mode" button, or the "Close" button at the top.

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	×
Synch	nronization
1	Step 1 Connection to the server
•	Step 2 Dictionaries
•	Step 3 Samples, analyses, and replicates
•	Step 4 C Attachments
	Getting images data (1/11) Step 5 Sync complete

SYNC IN BACKGROUND MODE

Home

The main screen of the mobile application is the **Home** screen.

The screen contains a set of pre-configured tiles that navigate to the <u>Samples</u> screen with corresponding filters applied.



Main Menu

The navigation through the application is performed through the **Main Menu** available by tapping the "**Menu**" button on the top-left of the screen.

With the menu you can navigate to the <u>Samples</u> screen with preset filters, or without the filters applied.

The application settings are available under the "Settings" option along with the various information about the application.

To sign out from the application, tap the "Sign out" option.



Settings

On the **Settings** screen you can customize the way the application works.

The authentication settings are protected with your account password/PIN.

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Settings			
General			
Authentication			
Connection			
Synchronization			
About			
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General Settings

General settings screen contains the **View** selection menu that determines the set of sample and analysis fields displayed in the mobile application.

The **Near me** selection menu is used configure the maximum range between the mobile device and the sample location to appear in the list of samples when the "**Near me**" filter is applied.

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View	
Advanced	*
Nearme	
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Authentication Settings

By default, you can sign into the system with a password. But on the **Authentication Settings** screen, you can change the default method to PIN.

Select the "PIN" option.

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Password	
PIN	
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You will be navigated to the **PIN Authentication** screen with a dial pad for the PIN.

The PIN should contain 4 digits.

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7	8	9
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Once you entered the PIN and saved the setting by tapping the "**DONE**" button, the PIN becomes your default authentication method.





In case if you forgot your PIN, you can authenticate with the password by tapping the menu button on the top-right of the **Sign In** screen and selecting the "**Use login/password authentication**" option.

Connection Settings

You can change the address of the synchronization server under the connection settings.

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← Connection	DONE
Server Address	
along the last	
Database	
DEMO	
CHECK CON	INECTION

Synchronization Settings

By default, the synchronization is performed manually, unless you enable the Auto synchronization in the settings.

When it is enabled, the application will perform the synchronization automatically with intervals specified in the "Synchronization period" field.

You can limit the synchronization by specifying the maximum age of the samples with the slider "Sync samples submitted up to".

The slider "Warn if last sync more than" sets the period after the last synchronization, when the synchronization indicator displayed in the top of every screen turns orange.

You can also clear the application data by tapping the "Clear sync data" button.



Synchronization Status

The **Synchronization Status** screen can be accessed either through the corresponding button in the settings, or by tapping the synchronization indicator on the top of every screen.

You can see the progress of the synchronization progress here or enforce the synchronization by tapping the "Sync" button.

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•	Step 1 Connection to the server		
ł	Step 2 Dictionaries		
ł	Step 3 Samples, analyses, and re	eplicates	
•	Step 4 Attachments		
•	Step 5 Sync complete		

Samples

Samples screen is an area of the system where users can access detailed information about the samples.

All available samples can be displayed in a flat list or grouped into collections. The grouping by collection can be enabled under the menu button at the top-right of the screen.



When you click on the collections, it expands revealing the list of samples in that collection.

You can view the details about the sample, its analyses and results by clicking on a particular sample.

The set of displayed fields can be changed on the Settings screen.

Please refer to <u>sample filters</u> for details about sorting and filtering options.

Sample Filters

The data on the **Samples** screen is displayed according to the filters.

You can narrow down the displayed data by clicking the "Filters" button in the top-right and selecting filters to apply.



Note that you can control the order in the list of samples by selecting a field under the "**Sort by**" element. To reverse the order, select the field once again.

To apply a filter, click on it in the list of filters and select one or multiple options to filter by.

Filters with multiple options open in a window where you can search for options or make so that only the selected ones are displayed by enabling the "**Selected**" switch at the top-right of the window.

You can reset a particular filter by clicking the **recycle bin** icon next to it or reset all filters by clicking "**Clear filters**" button on the top-right of the screen.

Sample Search

You can search for samples from any screen with **magnifying glass** icon in the header. When you click on the icon, the header is replaced with search form meant to find samples by their ID.

You can enter the sample ID manually or use the barcode scanner enabled by clicking the **camera** icon to the right.

When you submit the form, only the samples containing the string will be displayed in the list.

To cancel the search, tap the **red** "X" icon on the right-hand side of the search form.



Sample Details

Sample Details is a set of screens that display detailed information about the sample and all related analyses.

Under the action menu to the right, you can find an option "Show samples from the group" that navigate you to the list of samples with corresponding filter applied.

You can change the Collection group, Login user, Sample owner and values of other fields in the editing mode enabled by the "**Edit**" button at the top of the screen, when the editing of a particular field is allowed by the template selected in the "**View**" field in the application settings.

The "Edit" button is replaced with "Done" in the edit mode. This button applies all changes on tap.

Sample status can be changed even outside the editing mode. When you set the status to "**Not collected**" you have to specify the reason either by choosing one from the list of popular reasons or entering a custom one.



There is a navigation bar in the bottom of the screen that navigate to the following screens:

- Sample Details
- Sample Analyses
- Sample Images
- Sample Attachments
- Sample Location

Sample Analyses

Sample Analyses screen contains the list of analyses assigned to the sample.

The set of displayed analysis fields is determined by the "View" field option in the application settings.

You can navigate to the details of a particular analysis by tapping the analysis in the list.

Please refer to <u>Analysis Legend</u> for information on analysis icons and status colors.

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← Analyses	
EC EC	Analysis pending
Not valid	Validation
N/A	Result
WETCHEM	Department
NO2_SP	Analysis pending
Not valid	Validation
N/A	Result
WETCHEM	Department
NO3_FI	Analysis pending
Not valid	Validation
N/A	Result
WETCHEM	Department
д	

Sample Images

Samples can have images attached to them.

To attach an image, you can tap the **camera** icon and take a picture with your phone, or attach an existing file by tapping the **plus** icon.

The images will be displayed in a table with option to preview an image in full screen.

In preview mode, you can delete the image by tapping the **recycle bin** icon in the top-left corner of the screen.



Sample Attachments

You can attach various files to a sample on the **Sample Attachments** screen.

To attach a new file, tap the plus icon and select it in the file browser.

You can remove the files by tapping the **recycle bin** icon next to the file name.

When you click on a file, it will open with the default application for that file extension.



Sample Location

Sample Location screen displays a map with the location of the sample.

The application builds the route between your location and sample location according to the selected option (by car/by foot).

You can tap the bar at the bottom to expand the step-by-step directions.



Analysis Details

Analysis Details screen displays all information about the analysis performed with a certain sample.

The data is displayed in groups with General Fields group containing the fields common for all analyses and separate groups for analysis components. The set of displayed fields depends on the selected "**View**" field option in the <u>application settings</u>.

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← 🙆 X_FE_S	EDIT	← 🙆 X_FE_S	DONE
Analysis pending	Not valid	Analysis pending	Not valid
 General Fields 		 General Fields 	
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		Secondary result	
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You can enable the editing mode by tapping the "Edit" button on the top-right.

In the edit mode, certain fields of the analysis become editable and the "Edit" button is replaced with "Done" button that applies the changes.

Some fields have a **pencil** icon next to them. These icons open value entry windows with option to search through the standard values for these fields.

Note that every change to the analysis while it is in the "Validated" state changes it to "Not Valid".

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Analysis Legend

Analysis Types

Narrative analysis
 Single-component analysis
 Multi-component analysis
 Bottle analysis

Group analysis

Analysis States



Not valid

Analysis Statuses

Analysis pending

Completed

Analysis Result Colors

The color of the bar next to the analysis result value depends on the specification violation:

- The result exceeds specification range
- The result is exceeding warning range but within the specification range
- The result is within the warning range

Sample Legend

Sample Statuses



Not collected

Collected