

by  **AGILEBIO**

# LabCollector

## Manual Lab Service Manager

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## Download the manual

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### Download the manual (PDF)

LSM add-on version from v3.0  
LSM Manual v1\_Oct 2021

## 1. Introduction

---

Thank you for choosing one of AgileBio's solutions for the management of your lab. **The Lab Service Manager** also called **LSM add-on** is a web-based application designed for laboratories, core facilities, and biotechs providing services to clients or partners by keeping track of all samples arriving for processing.

In the LSM add-on, you can create an unlimited number of jobs and projects. You can also define services featuring useful tools to produce added value:

- Lab staff and client interfaces.
- Configurable assays/tests and workflow environment.
- Result and invoice template editor, to personalize your documents.
- Invoice management interface.
- Service cost definition.
- Audit trail log.
- Worklist and scheduler.
- Result report integration.
- Dashboard
- And much more...

The LSM add-on provided by AgileBio in combination with **LSMRemote** is suitable for technical platform service activities, Contract Research, and Service Organizations (CROs and CSOs). The **LSM add-on** is fully integrated with **LabCollector**, the LIMS we developed for life science research labs, Pharma and Biotech industries. Indeed, several **LabCollector** tools, data, and features work together with the **LSM** to enhance service quality and organization e.g. an alert system for equipment maintenance, consumable stocks, and validity.

The LSM is the main portion of the software where lab level configurations are made and it is also the interface lab staff use to perform jobs. The LSMRemote is an interface for customers/partners to request jobs and to retrieve results.

Note that Chapters 1-3 are mainly concerned with setup and configuration. Chapters 4-6 are mainly concerned with regular use after the LSM is setup.

**LabCollector** is a proprietary product from AgileBio.

## 2. Getting Started

---

You can get **LSM add-on** simply by downloading from [www.labcollector.com](http://www.labcollector.com). LabCollector has to be installed first as it contains the framework. LabCollector support documents for installation are available on our website. **LSM add-on** can be installed on any operating system (Windows, macOS X, Linux).

It is a best practice to make a backup of LabCollector before any installation, update, or upgrade.

- **Manual mode:**

Unzip and paste the **LSM add-on** folder in the extra\_modules folder of your LabCollector installation.

As an example, for Windows, it would look like:

```
C:\Programs\AgileBio\LabCollector\www\lab\extra_modules\lsm
```

- **Automatic mode from LabCollector interface:**

You can also use the LabCollector Menu

**Admin → Setup → Upload/Add add-ons → Upload add-on zip → Add add-on**

Return to LabCollector - the **LSM add-on** module is now activated. Click on the module to finish the installation.

- **Cloud hosted:**

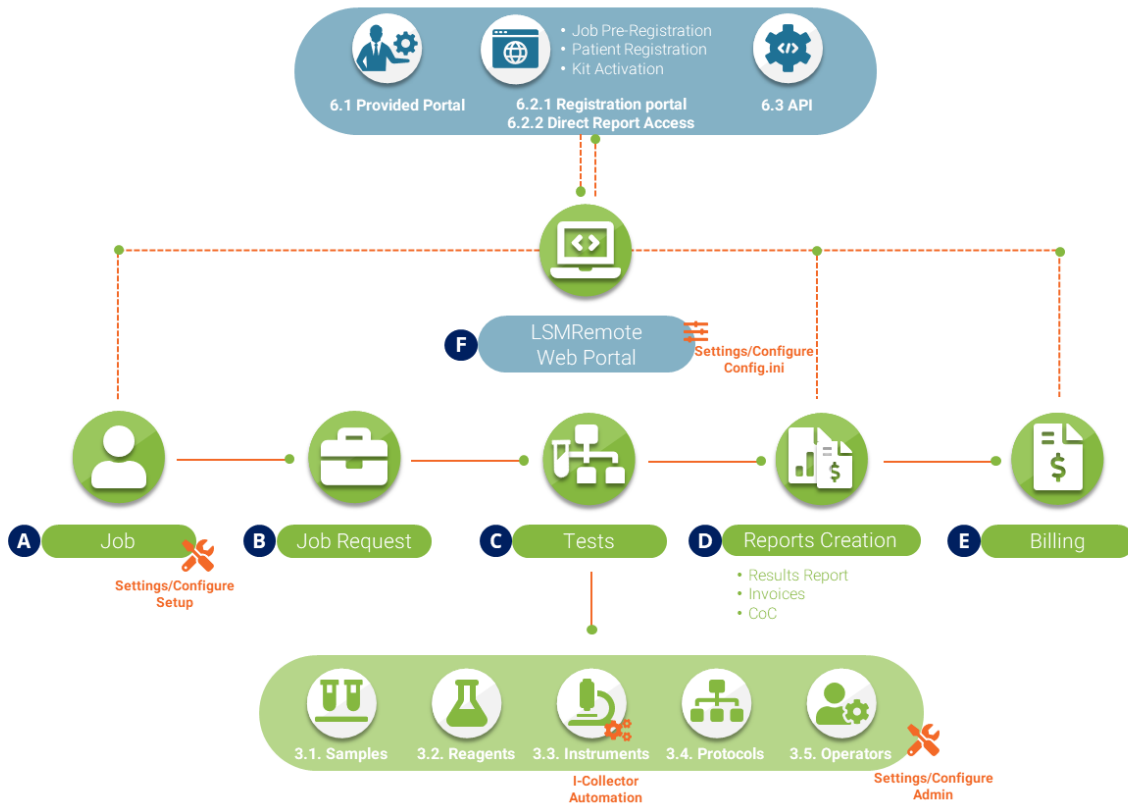
If your instance of LabCollector is cloud-hosted with AgileBio, AgileBio staff may perform the installation and license update for you. Contact your sales rep with any questions about the process.

The add-on will remain in a 30-day free trial mode until you save the final license **Admin → Setup → License**. To obtain a valid license, you have to copy and send the activation key to AgileBio.

### 3. Overview & Logic of LSM

Explained in the diagram below is a general logic where you can see the different aspects/features of LSM add-on and how it can be used in accordance with your lab workflow.

- **A & B)** Refer to [Chapter 5](#)
  - For set/Configuration of Jobs refer to [Chapter 6](#)
- **C, D & E)** Refer to [Chapter 6](#)
  - For instrument automation refer to [Chapter 8](#)
- **F)** Refer to [Chapter 7](#)
  - For LSMRemote configuration refer to [Section 7.1](#)




## 4. Homepage menu

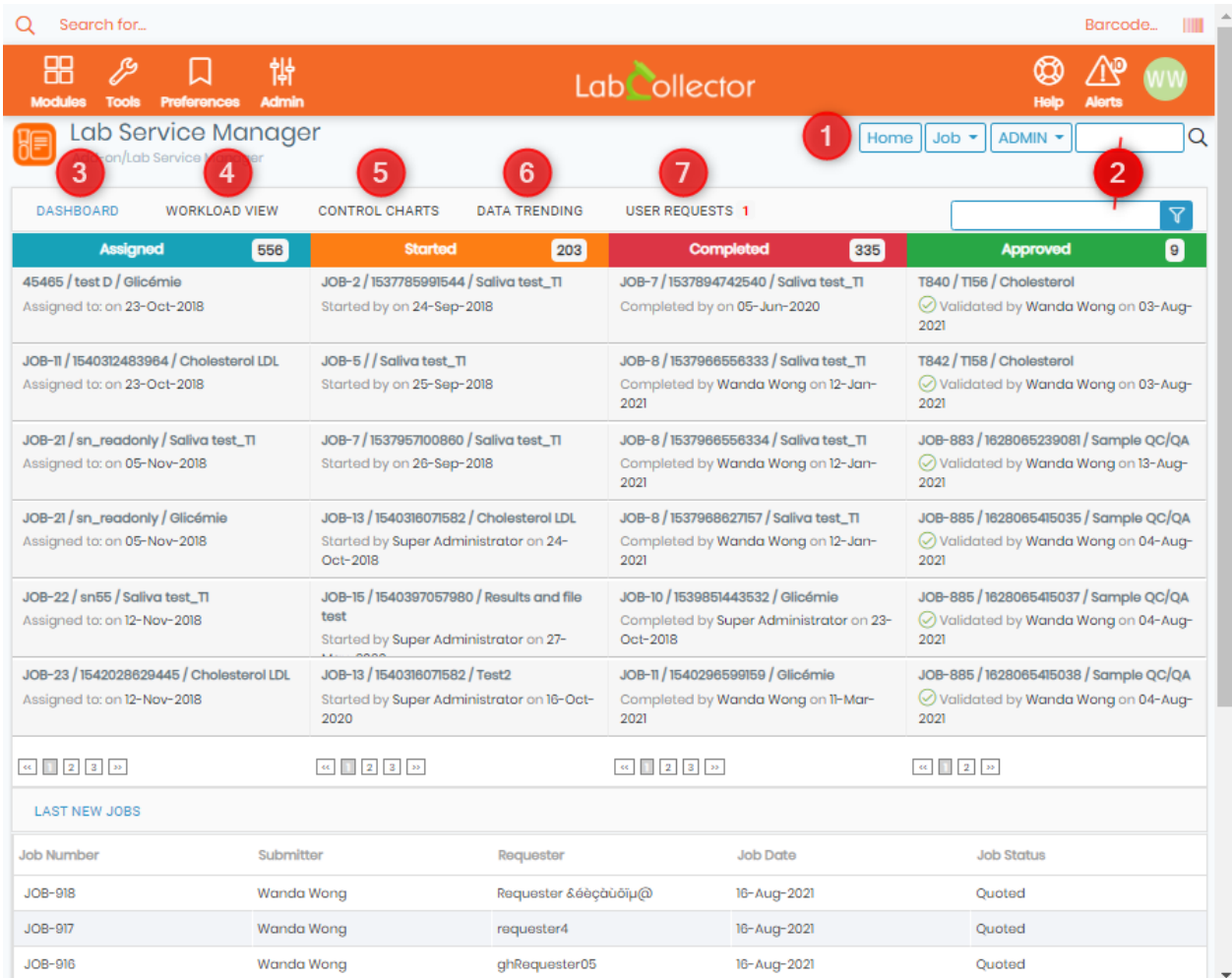
The home page allows users to quickly get information about the lab activity. Some tools have restricted access according to the users' status (admin, staff, guest...). For customers, partners or requesters who only need to submit jobs and retrieve results the home page will be the LSMRemote.

The **LSM's** main interface is composed of several parts (see below image):

1. A menu bar (Home/Job/Admin).
2. A search engine by keywords.

Please read the KnowledgeBase  [KB: how to search in LSM](#)

3. Dashboard
4. A workload view
5. Control Charts
6. Data trending charts
7. User Requests



The screenshot shows the Lab Service Manager (LSM) homepage. At the top, there is a search bar and a navigation bar with icons for Modules, Tools, Preferences, and Admin. The main header includes the Lab Service Manager logo and a menu bar with Home, Job, and ADMIN options. Below the header, there are several sections: Dashboard (566), Workload View (203), Control Charts (203), Data Trending (203), and User Requests (1). A table displays job status with columns for Assigned, Started, Completed, and Approved. Below this, there is a 'LAST NEW JOBS' section with a table listing job numbers, submitters, requesters, job dates, and statuses.

Assigned	Started	Completed	Approved
45465 / test D / Glicémie Assigned to: on 23-Oct-2018	JOB-2 / 1537785991544 / Saliva test_T1 Started by on 24-Sep-2018	JOB-7 / 1537894742540 / Saliva test_T1 Completed by on 05-Jun-2020	T840 / T156 / Cholesterol Validated by Wanda Wong on 03-Aug-2021
JOB-11 / 1540312483964 / Cholesterol LDL Assigned to: on 23-Oct-2018	JOB-5 // Saliva test_T1 Started by on 25-Sep-2018	JOB-8 / 1537966556333 / Saliva test_T1 Completed by Wanda Wong on 12-Jan-2021	T842 / T158 / Cholesterol Validated by Wanda Wong on 03-Aug-2021
JOB-21 / sn_readonly / Saliva test_T1 Assigned to: on 05-Nov-2018	JOB-7 / 1537957100860 / Saliva test_T1 Started by on 26-Sep-2018	JOB-8 / 1537966556334 / Saliva test_T1 Completed by Wanda Wong on 12-Jan-2021	JOB-883 / 1628065239081 / Sample QC/QA Validated by Wanda Wong on 13-Aug-2021
JOB-21 / sn_readonly / Glicémie Assigned to: on 05-Nov-2018	JOB-13 / 1540316071582 / Cholesterol LDL Started by Super Administrator on 24-Oct-2018	JOB-8 / 1537968627157 / Saliva test_T1 Completed by Wanda Wong on 12-Jan-2021	JOB-885 / 1628065415035 / Sample QC/QA Validated by Wanda Wong on 04-Aug-2021
JOB-22 / sn55 / Saliva test_T1 Assigned to: on 12-Nov-2018	JOB-15 / 1540397057980 / Results and file test Started by Super Administrator on 27-Nov-2018	JOB-10 / 1539851443532 / Glicémie Completed by Super Administrator on 23-Oct-2018	JOB-885 / 1628065415037 / Sample QC/QA Validated by Wanda Wong on 04-Aug-2021
JOB-23 / 1542028629445 / Cholesterol LDL Assigned to: on 12-Nov-2018	JOB-13 / 1540316071582 / Test2 Started by Super Administrator on 16-Oct-2020	JOB-11 / 1540296599159 / Glicémie Completed by Wanda Wong on 11-Mar-2021	JOB-885 / 1628065415038 / Sample QC/QA Validated by Wanda Wong on 04-Aug-2021

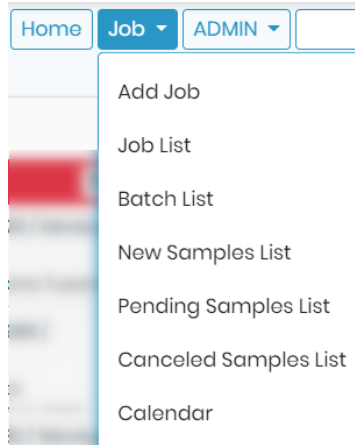
  

Job Number	Submitter	Requester	Job Date	Job Status
JOB-918	Wanda Wong	Requester &εàçàüöïμ@	16-Aug-2021	Quoted
JOB-917	Wanda Wong	requester4	16-Aug-2021	Quoted
JOB-916	Wanda Wong	ghRequester05	16-Aug-2021	Quoted

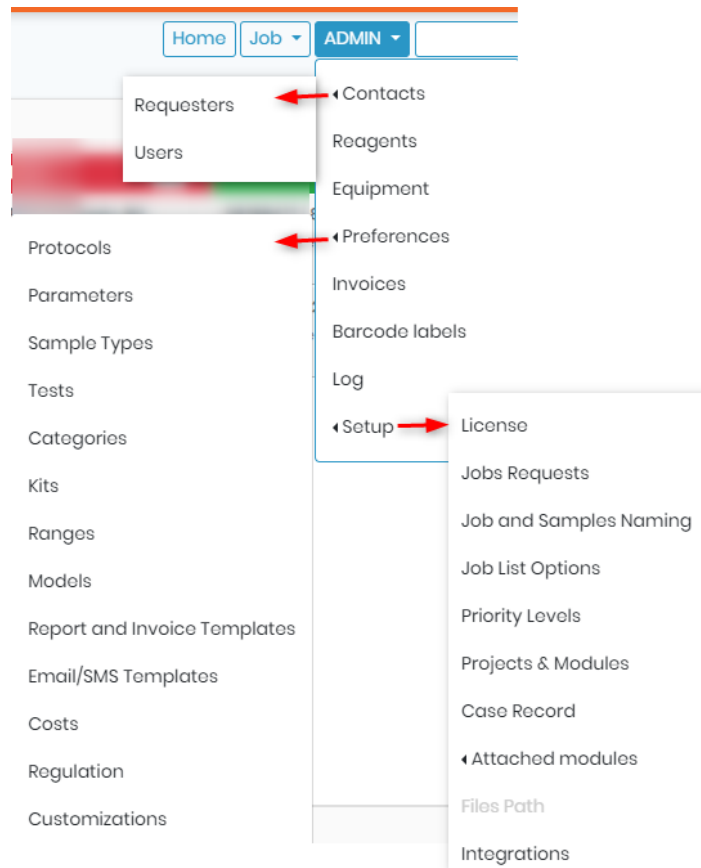
## 4.1 Menu bar

You will have 3 options:

1. Home will bring you to the homepage with all options.
2. Job will allow you to have more options to handle jobs. Refer to [Chapter 5](#)

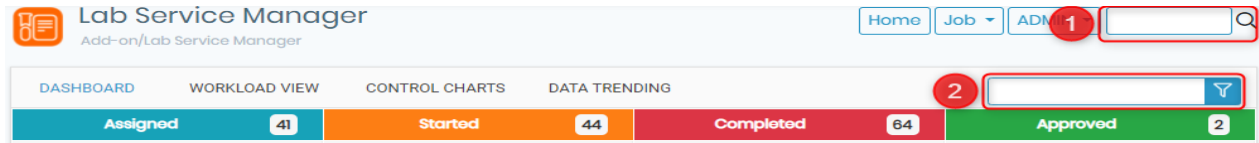


3. Admin provides various options to configure and setup LSM. Refer to [chapter 6](#)



## 4.2 Search options

LSM allows you to search your jobs and samples. through various ways. You can search either by going to [LSM → Home](#)




OR by going to [Job → Job list](#)

The **LSM** search engine allows information filtering in the job list. It searches by keyword in fields. The search engine field list depends on the page in which you are looking for information (jobs, worklists, results, suppliers, customers...).

Different filters can be used for advanced searches or to simplify views according to staff needs.

1. Assign batch
2. Printable – outputs the job list in HTML format ready for printing.
3. Export – generates a CSV file of the job list
4. Filter - opens the Filter bar explained from point 8 onwards
5. Limit – limits the number of jobs shown per page
6. Find text/numbers in job list.
7. The **Close all** button will close all jobs on the screen so that only the job level information is visible. Selecting **Expand all** will expand all jobs to show the assay and sample information within each.
8. and 9. The Job and Sample search boxes allow you to search for multiple jobs/samples at once.
9. Status – filter by “All”, “All not finished”, “Finished”, “Completed”, “In Progress”, or “Pending”.
10. Date filters
11. Priority – Normal, Rush or Slow
12. Requester
13. Operator
14. Batch – filter by Batch number

The screenshot displays the Lab Service Manager Add-on interface. At the top, a navigation bar includes options like 'Assign batch', 'Shipment status', 'Printable', 'Export', 'Report', 'Notify', 'Group by', 'Filter', 'Limit', 'Find', 'Close all', and 'Expand all'. The 'Filter' button is circled in red with the number 3. The search input field and 'Find' button are circled in red with the number 4. Below the navigation bar, there are several filter sections: 'Job ID' (text input), 'Job Status' (dropdown menu set to 'All not finished'), 'Priority level' (dropdown menu), 'From' and 'To' (calendar pickers), 'Filter on Memorized Items' (toggle switch), 'Sample ID' (text input), 'Shipment status' (dropdown menu), 'Test' (dropdown menu), 'Test Status' (dropdown menu set to 'All'), and 'Only overdue tests' (toggle switch). On the right side, there are dropdown menus for 'Requester', 'Category', 'Operator', 'Batch', 'Project Code', 'Case Record', 'Final report', and 'Corrective'. 'Go' and 'Clear' buttons are located on the far right.

To learn more about all the 4 options above and more, please read the KnowledgeBase   
KB: [how to search in LSM.](#)



### 4.3 Dashboard


The **Board View** gives a summary of users ongoing tasks which are:

1. Assigned
2. Started
3. Completed
4. Approved

Please read the KnowledgeBase  [KB: how to create & execute a job in LSM.](#)

You can click on the job number to open the job directly from the dashboard.

You will also see the list of last news jobs.




Assigned <span style="float: right;">41</span>	Started <span style="float: right;">43</span>	Completed <span style="float: right;">64</span>	Approved <span style="float: right;">2</span>
00001 / 1593611306475 / Sérologie WNV Assigned to: Nayana Tusamda on 01-07-2020	00001 / 1593611306474 / ARN WNV Started by NAL on 03-08-2021	00003 / 1593611626178 / Sérologie JEV Completed by Nayana Tusamda on 01-07-2020	98785477 / 8748 / Serology test-Virus Validated by NAL on 13-08-2021
00003 / 1593611626178 / ARN WNV Assigned to: Nayana Tusamda on 01-07-2020	00001 / 1593611306474 / Sérologie WNV Started by NAL on 13-01-2021	00006 / 1593612230985 / Sérologie JEV Completed by Super Administrator on 02-11-2020	JOB-102 / 1628989484753 / Testosterone Validated by NAL on 17-08-2021
00003 / 1593611626179 / ARN USUV Assigned to: Nayana Tusamda on 01-07-2020	00002 / 1593611465498 / ARN USUV Started by Nayana Tusamda on 01-07-2020	00007 / 1593612311932 / Sérologie JEV Completed by Super Administrator on 02-11-2020	
00003 / 1593611626180 / ARN USUV Assigned to: Nayana Tusamda on 01-07-2020	00002 / 1593611465499 / Sérologie WNV Started by Nayana Tusamda on 01-07-2020	00008 / 1593612385363 / Sérologie JEV Completed by Super Administrator on 02-11-2020	
00003 / 1593611626180 / Sérologie WNV Assigned to: Nayana Tusamda on 01-07-2020	00003 / 1593611626177 / ARN USUV Started by Nayana Tusamda on 01-07-2020	JOB-5 / 123456789 / COVID-19 DO NOT TOUCH Completed by Super Administrator on 20-08-2020	
00006 / 1593612230984 / Sérologie WNV Assigned to: Nayana Tusamda on 01-07-2020	00004 / 1593611987545 / ARN USUV Started by Super Administrator on 19-09-2020	JOB-7 / gkgfrs / COVID-19 DO NOT TOUCH Completed by Super Administrator on 12-08-2020	

<< 1 2 3 >>

<< 1 2 3 >>

<< 1 2 3 >>

<< 1 >>



LAST NEW JOBS				
Job Number	Submitter	Requester	Job Date	Job Status
JOB-102	NAL	LabCollector Lab	15-08-2021	Finished
JOB-15082021-NT	NAL	LabCollector Lab	15-08-2021	Pending

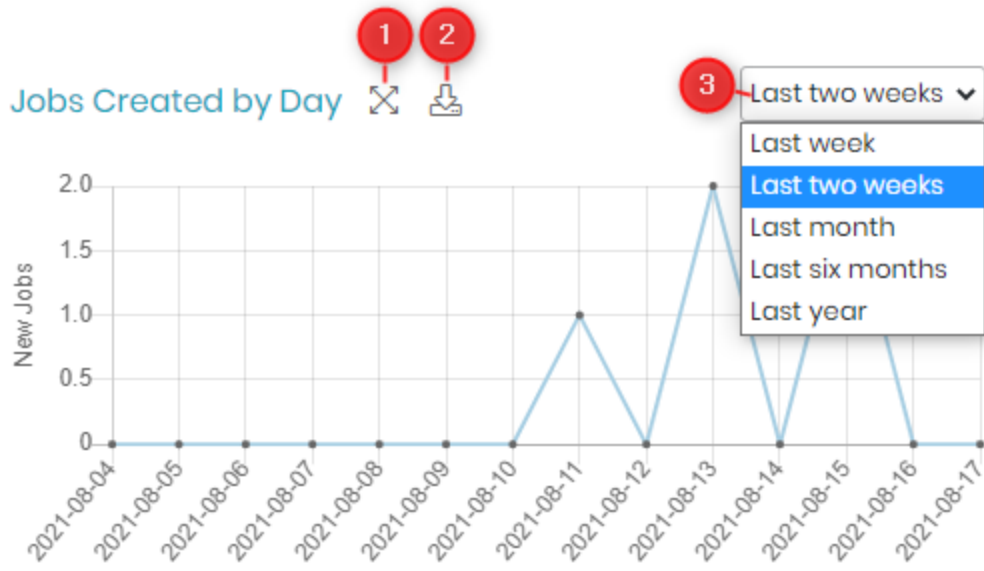
## 4.4 Workload view

The **Workload View** gives some statistics on service work load:

- Jobs created by day
- Sample by type
- Jobs by status
- Samples tests status by operator
- Samples created by job.



1. You can expand the graphs.
2. Download the image of the graph.
3. You can also choose the number of days you want to see the graphs for.

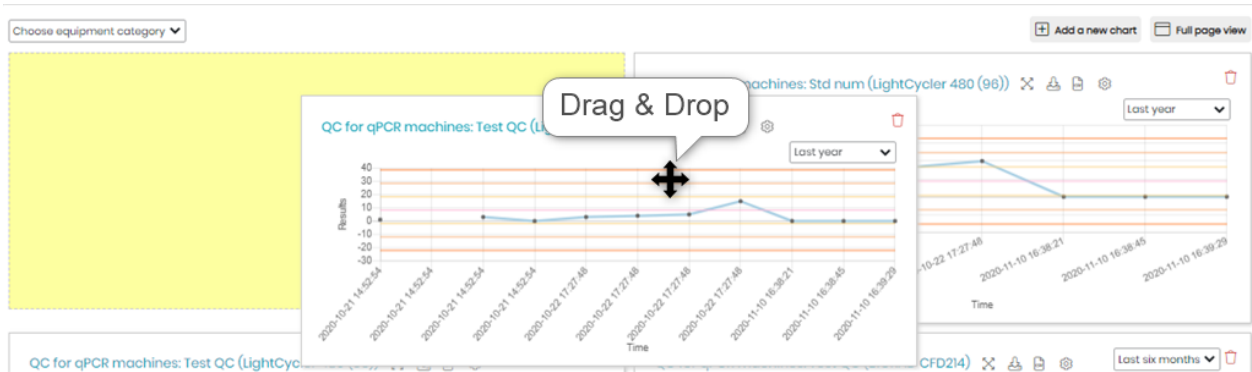


## 4.5 Control Chart

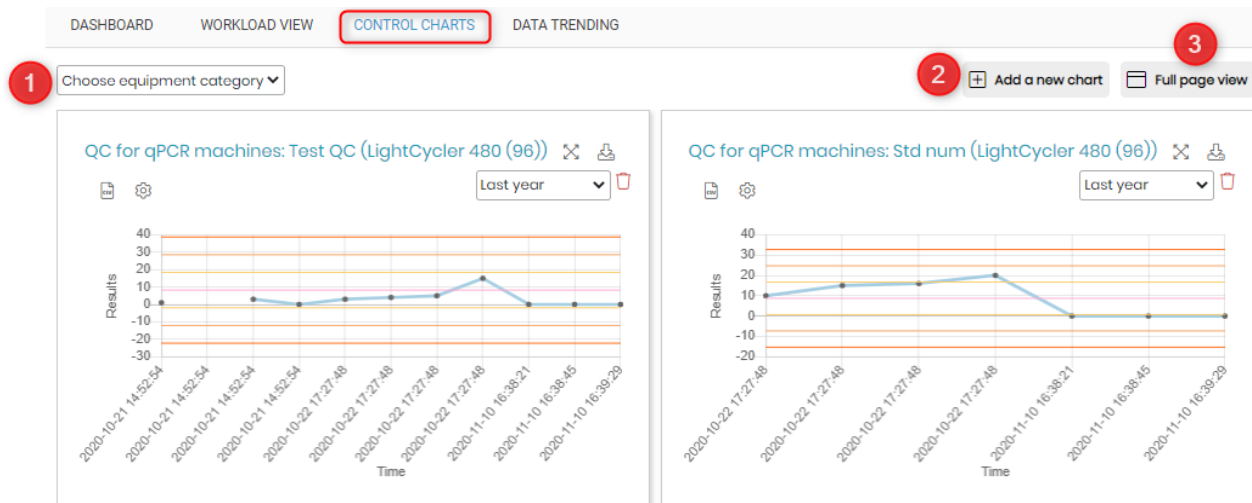
Control chart allows you to do quality check/calibration tests on the equipment and then plot a graph based on their performance.

Please read the KnowledgeBase [KB: how to create control charts.](#)

You can just drag and drop charts and arrange them as you prefer.



### Interface:

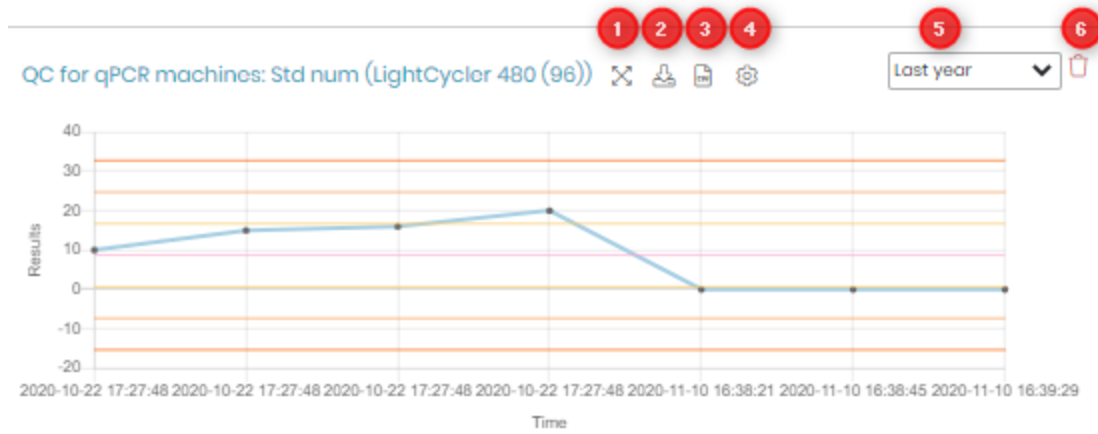


1. You can even create graphs pages dedicated to the equipment category. You can create equipment category in the Equipment module.

Please read the KnowledgeBase [KB: how to use equipment module](#)

2. To add a new chart you can click on this option.
3. You can see the chart page in a full page view.

For each graph you will see various options.



1. You can expand the graph size by clicking this option.
2. A png image file can be downloaded using this option.
3. A CSV file containing the standard deviation values (automatically calculated based on values of results from tests), min and max values and the values according to tests done on various dates.
4. This option will provided you to choose the standard deviation lines, average line to be visible or not in the graph. You can even apply these settings to all the charts.

[Edit configuration > QC for qPCR machines: Std num \(LightCycler 480 \(96\)\)](#)

Show std1 line

Show std2 line

Show std3 line

Show avg line

Apply to all control charts

[Save](#)

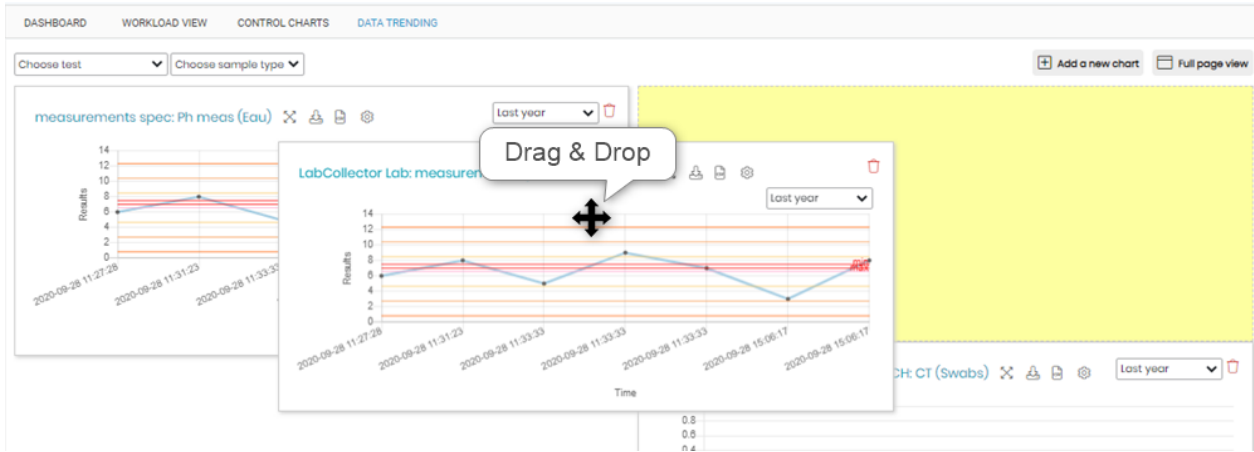
5. You can choose the days you want the graph to show values for.
6. You can even delete the graph if you want.

## 4.6 Data Trending Chart

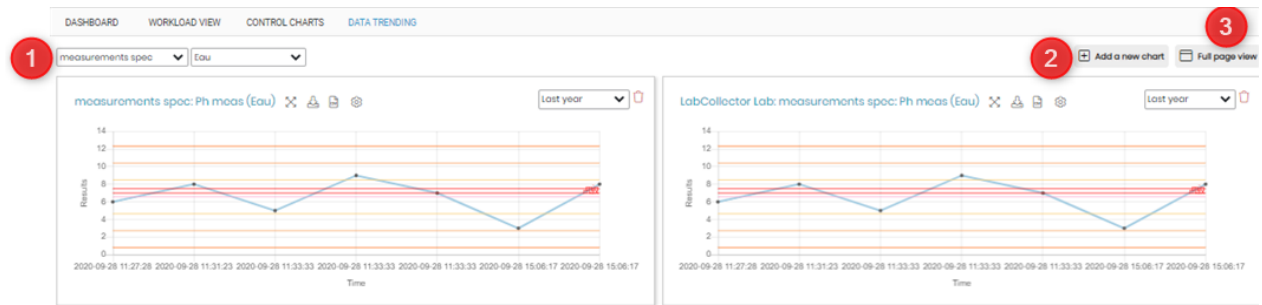
The Data trending chart will show all the calibrations done using a standard sample.

Please read the KnowledgeBase [KB: how to create data trending charts.](#)

You can just drag and drop charts and arrange them as you prefer.

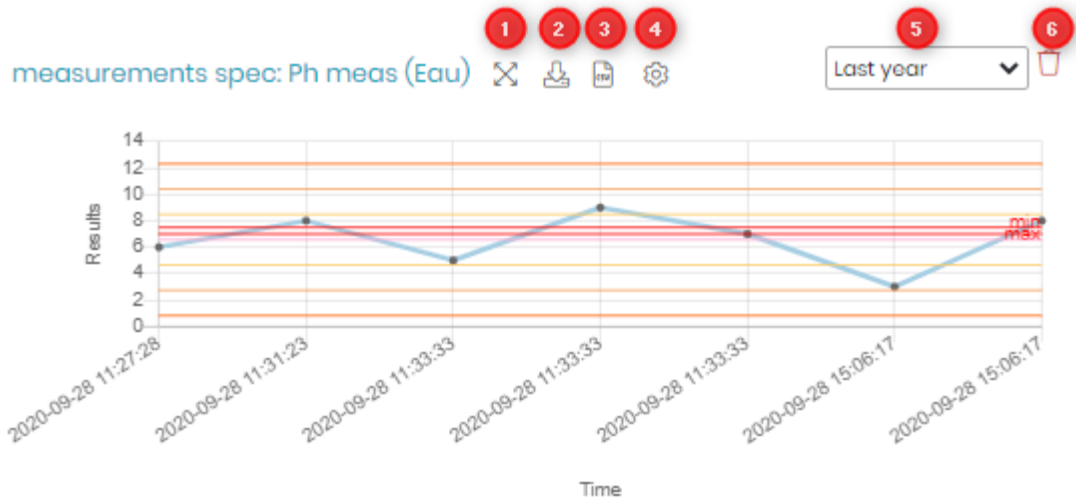


Interface:

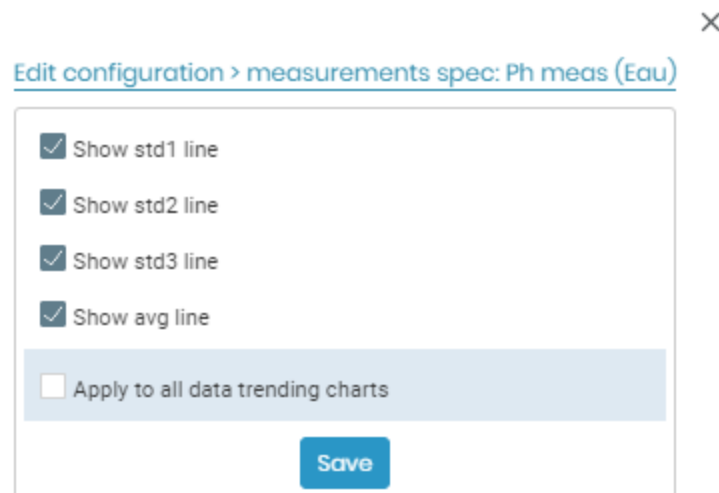


1. You can even create graphs pages based on test and sample type. You can create equipment category in the Equipment module.
2. To add a new chart you can click on this option.
3. You can see the chart page in a full page view.

For each graph you will see various options.



1. You can expand the graph size by clicking this option.
2. A png image file can be downloaded using this option.
3. A CSV file containing the standard deviation values (automatically calculated based on values of results from tests), min and max values and the values according to tests done on various dates.
4. This option will provided you to choose the standard deviation lines, average line to be visible or not in the graph. You can even apply these settings to all the charts.



5. You can choose the days you want the graph to show values for.
6. You can even delete the graph if you want.



## 4.7 User Requests

You will only see this option when a requester/provider/client registers themselves from the LSMRemote.

You need to validate these user requests in order to create a requester.

Please read the knowledgebase  KB: [how to register using LSM remote and validate the requester in LSM.](#)

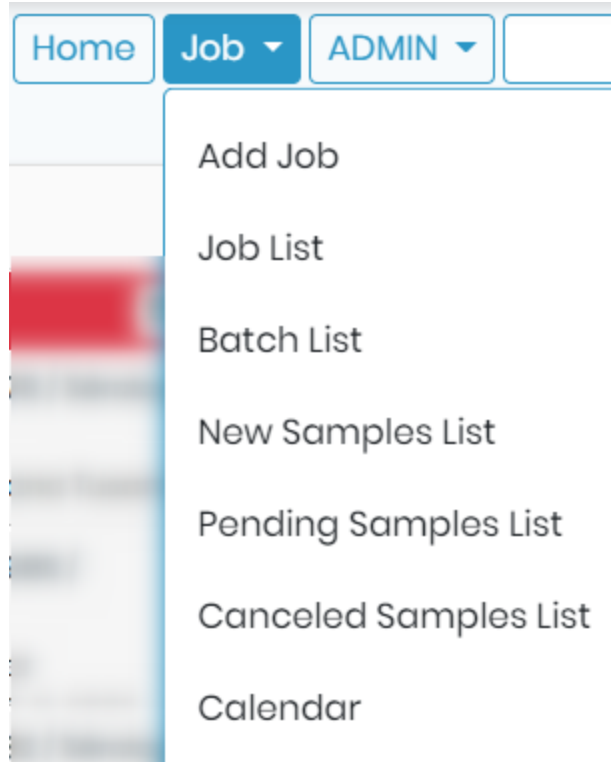
Please refer to  [section 6.1.1.1](#))

DASHBOARD    WORKLOAD VIEW    CONTROL CHARTS    DATA TRENDING <b>USER REQUESTS 2</b>					
Name	Email	City	Country	Phone	Date
John Dyre	John@gmail.com	A	France	A	17-Aug-2021 22:48:22
nc [REDACTED]	[REDACTED]na@email.com	a	France	a	22-Feb-2021 13:21:34

## 5. Job menu

---

The job menu has several sections allowing job management and activity follow-up. A tree view, search engine and page navigator are integrated into the LSM to make it quick to navigate to any part of the LSM at any time. The tree view for jobs is available at any time via navigation in the menu at the top of all LSM pages.




## 5.1 Add jobs


The jobs can be created by 3 ways inside LSM add-on:


1. Using the LSM add-on interface and going to **LSM → Job → Add-job**
2. Using LSMRemote portal (Under submit job button)
3. Using another system or website, information can be then transmitted to LSM via API.


### Warning



Be very careful while adding jobs as there is little possibility to change or alter fields/parameter values once the job is created.


For creating jobs via LSM and LSMRemote please refer to our  KB: [how to create and execute a job.](#)

For creating job using API please refer to our  KB: [how to create job using API.](#)

You can add custom fields to different levels at job, sample or test level. Refer to  [section 3.4.2.1](#)

Each job will proceed to different status as you progress with it. Please refer to our  KB: [how to create and execute a job.](#)

- Depending on your settings the job will initially be either in "Quoted" or "Requested" status.
- When you choose Quoted option, you create an invoice entry that is managed in the invoices list. Refer to  [section 6.5 \(Admin → Invoices\)](#) .
- For job acceptance setting in LSM add-on refer to  [section 6.7.2.](#)

For job acceptance in LSMRemote portal refer to  KB: [how to configure jobs in LSMRemote \(Point 7\).](#)

Once the job is accepted, then it moves along the 4 status, which are Assigned, Started, Completed or Approved.

## Lab Service Manager Add-on

Job		Job Status
<input type="checkbox"/>	15: 12587 (20-07-2020 by Super Administrator)	Quoted
<input type="checkbox"/>	86: JOB-57 (24-11-2020 by Super Administrator)	Requested
<input type="checkbox"/>	77: JOB-50 (08-11-2020 by Super Administrator)	Pending
<input type="checkbox"/>	74: JOB-48 (03-11-2020 by Super Administrator)	In Progress
<input type="checkbox"/>	71: LC_45 (03-11-2020 by Super Administrator)	Completed
<input type="checkbox"/>	97: JOB-64 (08-01-2021 by NAL)	Finished



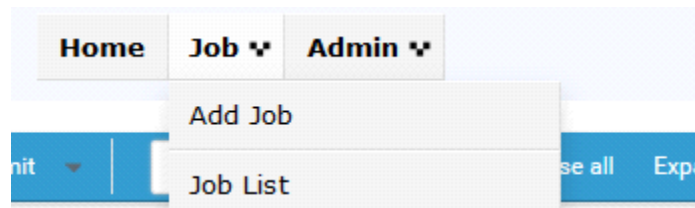
When first accessing the LSM the homepage provides some information about the latest jobs added, as well as dashboards to show information about the complete load of jobs.

DASHBOARD			
Assigned	Started	Completed	Approved
584	219	350	19
45465 / test D / Glicémie Assigned to: on 23-Oct-2018	JOB-2 / 1537785991544 / Saliva test_T1 Started by on 24-Sep-2018	JOB-8 / 1537966556333 / Saliva test_T1 Completed by Wanda Wong on 12-Jan-2021	JOB-7 / 1537894742540 / Saliva test_T1 Validated by John Murphy on 21-Sep-2021
JOB-11 / 1540312483964 / Cholesterol LDL Assigned to: on 23-Oct-2018	JOB-5 / / Saliva test_T1 Started by on 25-Sep-2018	JOB-8 / 1537966556334 / Saliva test_T1 Completed by Wanda Wong on 12-Jan-2021	JOB-32 / mBRS10000005_C01 / PCR test Validated by Wanda Wong on 21-Sep-2021
JOB-21 / sn_readonly / Saliva test_T1 Assigned to: on 05-Nov-2018	JOB-7 / 1537957100860 / Saliva test_T1 Started by on 26-Sep-2018	JOB-8 / 1537968627157 / Saliva test_T1 Completed by Wanda Wong on 12-Jan-2021	JOB-680 / sampletest1 / COVID-19 Validated by Wanda Wong on 07-Sep-2021
JOB-21 / sn_readonly / Glicémie Assigned to: on 05-Nov-2018	JOB-13 / 1540316071582 / Cholesterol LDL Started by Super Administrator on 24-Oct-2018	JOB-10 / 1539851443532 / Glicémie Completed by Super Administrator on 23-Oct-2018	JOB-945 / 1630571030654 / ghTest03.GO Validated by Wanda Wong on 02-Sep-2021
JOB-22 / sn55 / Saliva test_T1 Assigned to: on 12-Nov-2018	JOB-15 / 1540397057980 / Results and file test Started by Super Administrator on 27-May-2020	JOB-11 / 1540296599159 / Glicémie Completed by Wanda Wong on 11-Mar-2021	JOB-949 / 1630583427633 / test with range Validated by Wanda Wong on 02-Sep-2021
JOB-23 / 1542028629445 / Cholesterol LDL Assigned to: on 12-Nov-2018	JOB-13 / 1540316071582 / Test2 Started by Super Administrator on 16-Oct-2020	JOB-15 / 1540393684731 / Results and file test Validated by Super Administrator on 24-Oct-2018	JOB-950 / 1630586172268 / ghTest03.GO Validated by Wanda Wong on 03-Sep-2021

In **LSM → Job → Job List** you will see all jobs in the lab. By default, the application shows all jobs that are not finished. Using the filter tab you can filter and sort any and all jobs. The job status is indicated for each job, in the main tab and in the tree view. Jobs are identified by an ID for lab data traceability and barcoding. The job list displays job status, priority, requester, operator, sample shipment status and batch, allowing users to prioritize their tasks.

Job	Job Status	Priority level	Requester	Operator	Shipment status	Batch
1419: JOB-1003 (27-Sep-2021 by Wanda Wong)	Pending	Routine	[ghRequest02]			
1418: JOB-1002 (24-Sep-2021 by Wanda Wong)	Completed	Routine	[ghRequest02]			
1417: JOB-1001 (24-Sep-2021 by Wanda Wong)	Completed	Routine	[ghRequest02]			
1416: JOB-1000 (24-Sep-2021 by Wanda Wong)	In Progress	Routine	[ghaliaReq1_1] agilebio			
1412: GH996 (22-Sep-2021 by Wanda Wong)	Completed	Routine	[GhRequester 03] AgileBio			
1411: JOB-995 (22-Sep-2021 by Wanda Wong)	Completed	Routine	[ghaliaReq1_1] agilebio			
1409: JOB-993 (21-Sep-2021 by Wanda Wong)	Completed	Routine	[ghRequester01] Agilebio			

To create a new job, click on the **Add Job** button from the Job menu.



Save
Cancel

**Job Number** [?]

**Job Date**

**Requester** \*

**Priority level** \*

**Expected Date**

**Order**

Job
  Quote

**Purchase Order**

First, in the **Order** field, you can choose between creating a new **JOB** or a **QUOTE**.

A quoted job is represented by a ● icon in the job list.

<input type="checkbox"/>	▼ ● <b>22: JOB-21</b> (2018-12-07)	<b>Quoted</b>
<input type="checkbox"/>	▼ ✎ CBC	Quoted
<input type="checkbox"/>	🧪 25: 89854	Quoted
<input type="checkbox"/>	▼ ✎ HbA1c	Quoted
<input type="checkbox"/>	🧪 25: 89854	Quoted
<input type="checkbox"/>	>     <b>21: JOB-20</b> (2018-12-07)	<b>Pending</b>

If you select Job, the job will be created immediately.

Below the entries for Job identification (default fields plus any parameter with the job level selected), there is a **Samples** tab to add all samples for the job. Multiple samples can be added for the same assay or for different ones. You can also assign the same sample to multiple assays/tests.

If samples already exist in LabCollector, they can be memorized and then added to a job using the **Memorized records** button. This will allow a selection from the memorized list to be used for the new job.

Sample addition can also be done by batch importing of a CSV list. Each row will be a sample for a single job. Each sample can be assigned to one or several assays.

**Note:** The CSV format can be checked by using the **Export CSV** button. The format will vary depending on the way you setup parameters in the LSM. This gives you an empty Excel file that you can then fill and reload or provide for clients and partners. Not all the fields are mandatory.

Save Cancel

Job Number [!]  Clinic name

Job Date 2018-12-10

Requester \*

Priority level \* Normal

Expected Date

Order  Job  Quote

Purchase Order

Add row Select all Remove selected Import CSV Export CSV Memorized records Rename samples Chain of Custody (COC) Assign tests

SAMPLES

Sample*	Type*	Sex	Comment	Tests
1544455593773				

Assays/tests can be selected on a sample-by-sample basis. The method of selecting assays can be chosen by clicking on *Assign tests* and making a selection:

Save Cancel

Job Number [!]  Clinic name

Job Date 2018-12-10

Requester \*

Priority level \* Normal

Expected Date

Order  Job  Quote

Purchase Order

Add row Select all Remove selected Import CSV Export CSV Memorized records Rename samples Chain of Custody (COC) Assign tests

SAMPLES

Sample*	Type*	Sex	Comment	Tests
1544455593773				

Assign tests

- Default mode (test search)
- Categories grid mode
- Tests grid mode

The Default mode (test search) will have the selection of tests via a pop-up menu when clicking the assay/test cell for the sample:

Job Number [?], Patient name, Job Date: 2019-02-21, Requester \*, Priority level \*: Normal, Expected Date, Order:  Job  Quote

Select Assay

Assay [?]

Category [?]

1

2

Default mode (test search)  
Categories grid mode  
Tests grid mode

Sample*	Type*	Comment	Tests
1550763443379			

Grid mode can be by assay/test or category and uses check boxes to select which assays/tests are to be done for each sample:

1

Default mode (test search)  
Categories grid mode  
Tests grid mode

Sample*	Type*	Comment	Glucose test	Sodium test
1550763443379			<input type="checkbox"/>	<input type="checkbox"/>

2

The **Chain of Custody/Shipping list** is generated as a PDF with the list of samples and checkboxes of assays/tests. You can choose the template for this list - please read chapter 3-4-4.

Print this shipping list and include it with the samples

#	Sample	Type	Sample Condition	Sample Description	Sample Layer	longtext sample	Date Collected	Sample prep date	Comment	Tests	Received
793	1524591067842	Type1	4	3	2	1324355iutrhfngnvgfcb terfhng	2018-04-11 10:31:00			Report all parameters	
794	1524591067845	Type1	4	3	2	1324355iutrhfngnvgfcb terfhng	2018-04-11 10:31:00			Report all parameters	
795	1524591067846	Type1	4	3	2	1324355iutrhfngnvgfcb terfhng	2018-04-11 10:31:00			Report all parameters	
796	1524591067847	Type1	4	3	2	1324355iutrhfngnvgfcb terfhng	2018-04-11 10:31:00			Report all parameters	

Generated on 2018-04-27 11:33:12

Once the job is created, it is displayed in the job list and the initial status is **pending**.



### 5.1.1 Job level Parameters

You will be able to see some by default fields and some custom fields.

*\*Below image is an example of already configured system. Your LSM might look different depending on your settings.*

1. Job Number is the number given to each job.  
The setting for this can be found in **LSM → Admin → Setup → Job Requests**.  
Please refer to [section 6.7.2](#)
2. Job date is selected automatically when the job is created.
3. Requester is the provider/client/customer who has collected the sample or the name of the sample collection center.  
The setting for this can be found in **LSM → Admin → Contacts → Requesters**.  
Please refer to [section 6.1.1](#)
4. Project code can be only seen if it activated as an option in **LSM → Admin → Setup → Project & Modules**.  
Please refer to [section 6.7.6](#)
5. Secondary requesters can be used when you need to make the patient result report available to certain medical practitioners or partner companies/labs etc. For example when you go to a doctor (Primary requester) and they refer you to a specialist/ Surgeon or a another clinic (Secondary Requester). Sometimes companies (Primary requester)

need to do medical examination for the employees where the companies have a doctor (Secondary requester) who collects samples and sends to a clinic/lab for testing.

The setting for this can be found in **LSM → Admin → Setup → Job Requests.**

Please refer to  [section 6.7.2](#)

6. Priority level is to give certain jobs a status if they are to be performed urgently, on the same day or normally. The wording for the 3 status/labels can be managed in **LSM → Admin → Setup → Priority levels.**


Please refer to  [section 6.7.5](#)

7. Expected Date is to mention when the results of the tests are expected.
8. Order allows you to choose if the job you are created should be a quote, Request or a job.


Quote: It needs to be ordered and by this you will also create a invoice in **LSM □ Admin □ Invoices.**


Request: It needs to be accepted or rejected.

Job: If a job you can edit and start a job directly.


For creating jobs via LSM and LSMRemote please refer to our  **KB: [how to create and execute a job.](#)**

9. You can choose if you have received the samples or no.

This setting can be also changed using sample receiving add-on. Please refer to our  **KB: [how to accept a sample using sample receiving add-on.](#)**

10. Case record refers to a custom module which you can connect to the LSM. It can be a module for example for patients, animals, plants, etc on whom you are going to perform tests on. If you create a custom module and want to connect to LSM then you can set it in **LSM → Admin → Setup → Case record.** Please refer to  [section 6.7.7](#)

You can click on the + sign and create a case record in the connected custom module directly from the popup.

11. LSM allows you add other custom modules too, if you require them to be attached to the tests. The settings for this can be found in **LSM → Admin → Setup → Attached Modules.** Please refer to  [section 6.7.8](#)

12. Job additional data allows you to see the custom fields/parameters You can create and add custom fields at job level by going to **LSM → Admin → Preferences → Parameters.**

You need to have them at the job level and the box "On Lab Form" checked to be visible

here. See the image below.

Create custom fields/parameters please refer to [section 6.4.2](#)

☰ Parameter Details

Save Cancel

---

Label:\* J-numeric

Code:

Level:\* Job

Data Type:\* Numeric Fixed Decimals:  No  Yes   Conditional

Helper text:

Unit: type and press enter

Phrase: type and press enter

On Report:

On Client Form:

On Lab Form:

Backend:

Mandatory:

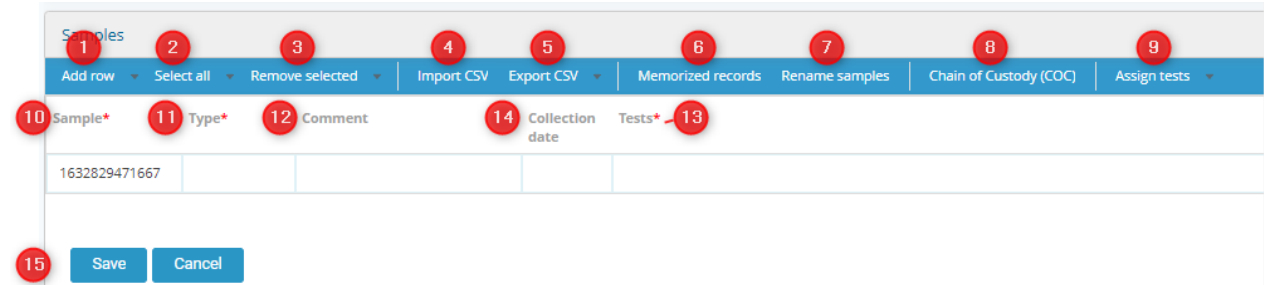
Search Filter:

Report Color:

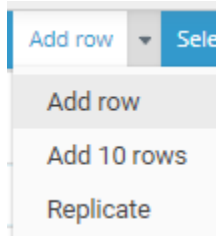
### 5.1.2 Sample level Parameters

You can create and add custom fields at sample level by going to **LSM → Admin → Preferences → Parameters.**

Create custom fields/parameters please refer to [section 6.4.2](#)



1. Add row will allow you to add rows below to add sample or samples below.

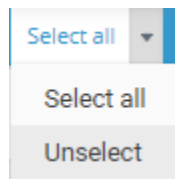


- To add a row you can either click on the "Add row in blue bar or click in the small arrow and click on "Add row" in the drop down.
- You can add 10 rows at once for adding 10 samples and the information about their tests.
- You can replicate the sample details.

\*Everything except the sample number will be replicated.

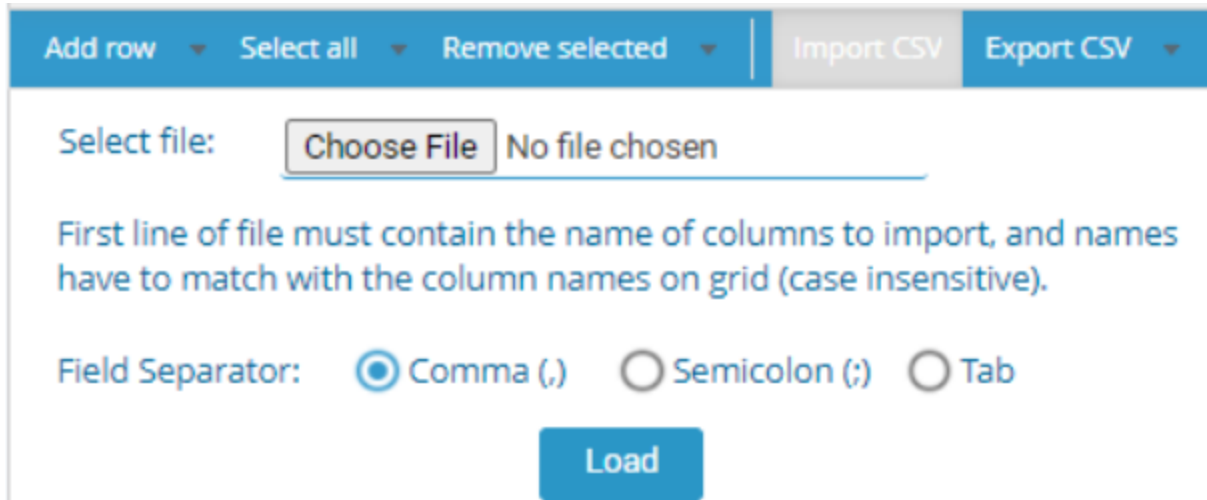
Sample*	Type*	Comment	Collection date	Tests*
1632829471670	Blood		2021-09-01	GLI 2 Glicémie
1632829471671	Blood		2021-09-01	GLI 2 Glicémie

2. You can select or unselect rows using this option.

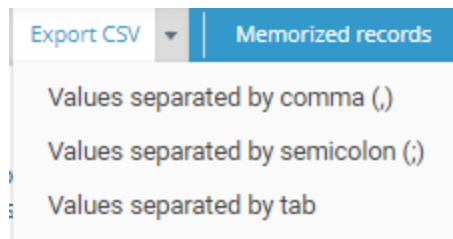


3. You can remove the rows that are selected.

- You can import information about the CSV if you have multiple samples and you don't want to enter their information manually.



- Export CSV allows you to download all information about the samples and the related parameters/fields and information for them. You can choose the the type of separator that you would like.



- With the help of memorized records you can add/import samples from the sample module in LabCollector.

### Samples module

ID	Label	Project Co...	Main Ope...	Sample T...	Text field	Decimal n...	sample su...	Tube Co...
25098	1632755280622		Wanda Wong					
25097	1632755280621		Wanda Wong					

### LSM add-on

Module	ID	Label
<input checked="" type="checkbox"/> Samples	25098	1632755280622
<input checked="" type="checkbox"/> Samples	25097	1632755280621

Sample*	Type*	Comment	Collection date	Tests*
1632755280622				
1632755280621				

7. You can rename samples by uploading sample names via a CSV. This comes in handy if you have samples to name, and you can do that by just uploading the CSV.
8. Chain of Custody (CoC) is a document that help to track information about the sample. You can set the template for the same in **LSM → Admin → Preferences → Reports & Invoice templates**.  
Once you have created a template you need to choose it by going to **LSM → Admin → Preferences → Reports & Invoice templates → Options**.
9. Assign tests allows you to assigns tests for the job.  
The setting for this can be done in **LSM → Admin → Setup → Job requests**.  
Please refer to [📖 section 6.7.2](#)
10. Here you can type the sample name or number. You can use this as the barcode of the sample instead of the ID.  
ID is a number given to each sample by LabCollector system itself.  
Sample name, you can define if should be custom or semi automatic or completely automatic.  
The settings for this can be found in **LSM → Admin → Setup → Job & samples naming**.  
Please refer to [📖 section 6.7.3](#)
11. Here you need to add sample type. It is a default field. Depending upon the sample type the tests will be shown. You can associate sample type/s with each test, when you configure the test in **LSM → Admin → Preferences → Test**.  
Settings for this can be done in **LSM → Admin → Preferences → Sample type**.  
Please refer to [📖 section 6.4.3](#)
12. Comment is a default field. You can add comments for the test or sample.
13. Tests let you add the tests according to sample type.
14. This is an example of an custom parameter. You can add custom parameter from **LSM → Admin → Preferences → Parameters**.

☰ Parameter Details

---

Label:\*

Code:

Level:\*  ▼

Data Type:\*  ▼

Helper text:

Unit:

Phrase:

On Report:

On Client Form:

On Lab Form:

Backend:

Mandatory:

Search Filter:

Report Color:


15. You can save the job, once you have set the parameters according to your requirement.

### 5.1.3 Test level Parameters

You can create 3 types of test parameters namely Input, Processing and result parameters.

You can create and add custom fields/parameters at Test level by going to **LSM → Admin → Preferences → Parameters.**

For creating custom fields/parameters please refer to  [section 6.4.2](#)

For creating test please refer to  [section 6.4.4.](#)



## 5.2 Job List

When the job is created (As explained in [section 5.1](#), you will see it in the job list options by going to **LSM → Job → Job list**.

The job list page has several features that allow you to manage your job.

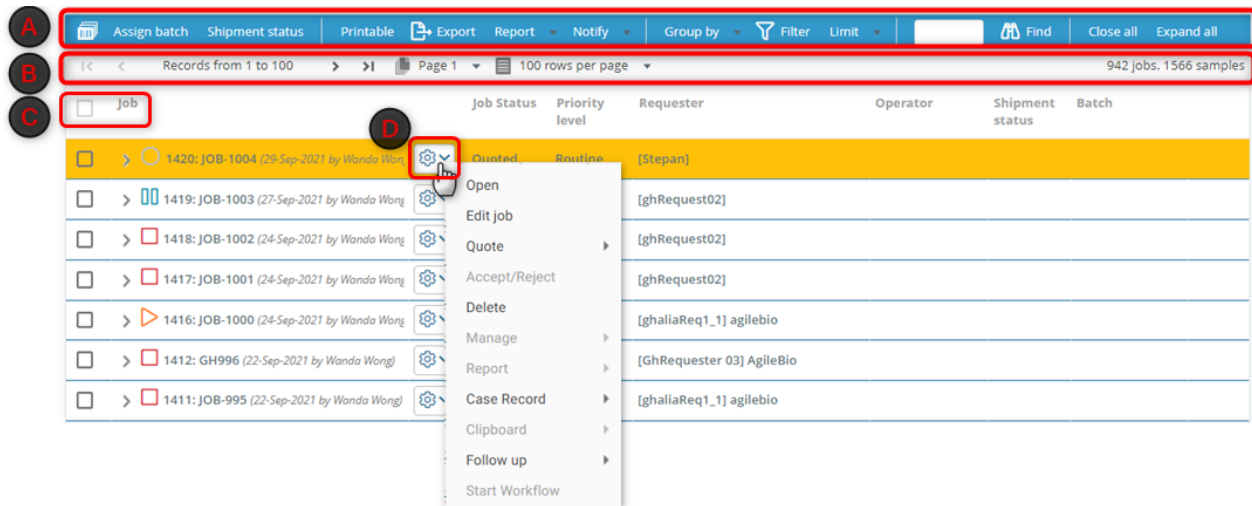
**A.** Some features are present in the blue **Job bar** on the job list page. Please see [section 5.2.1](#)

**B.** Some options allow you to navigate to different pages containing jobs. See [section 5.2.1.10](#)

**C.** This box will allow to select multiple/all jobs at once.

**D.** Some of the features that are related to individual job are present in front of the job.

Please see [section 5.3](#)



### 5.2.1 Job Bar

The job bar contains several options to manage jobs. All of the below are explained in the below sections.

The screenshot shows the Job Bar interface with the following components and callouts:



- 1:** Assign batch button
- 2:** Shipment status button
- 3:** Printable button
- 4:** Export button
- 5:** Report dropdown menu
- 6:** Notify dropdown menu
- 7:** Group by dropdown menu
- 8:** Filter button
- 9:** Limit dropdown menu
- 10:** Search input field
- 11:** Find button
- 12:** Close all button

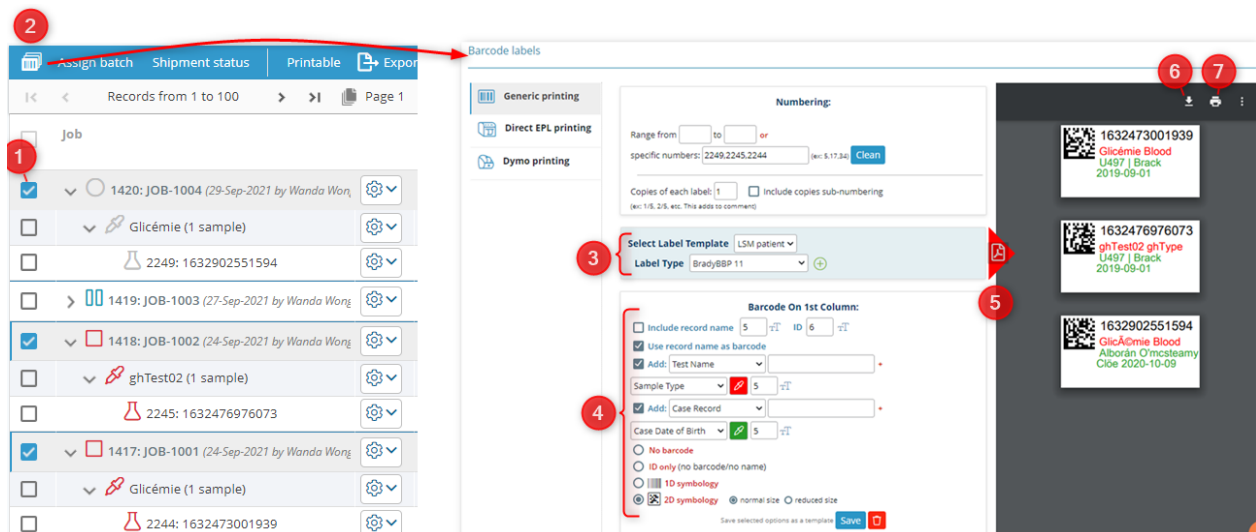
Below the toolbar, the interface shows a table of job records with the following columns: Job, Job Status, Priority level, Requester, Operator, Shipment status, and Batch. The table contains four rows of data:

Job	Job Status	Priority level	Requester	Operator	Shipment status	Batch
1420: JOB-1004 (29-Sep-2021 by Wanda W)	Quoted	Routine	[Stepan]			
1419: JOB-1003 (27-Sep-2021 by Wanda W)	Pending	Routine	[ghRequest02]			
1418: JOB-1002 (24-Sep-2021 by Wanda W)	Completed	Routine	[ghRequest02]			
1417: JOB-1001 (24-Sep-2021 by Wanda W)	Completed	Routine	[ghRequest02]			

Additional interface elements include: "Expand all" button, "Records from 1 to 100", "Page 1", "100 rows per page", and "942 jobs, 1566 samples" summary.

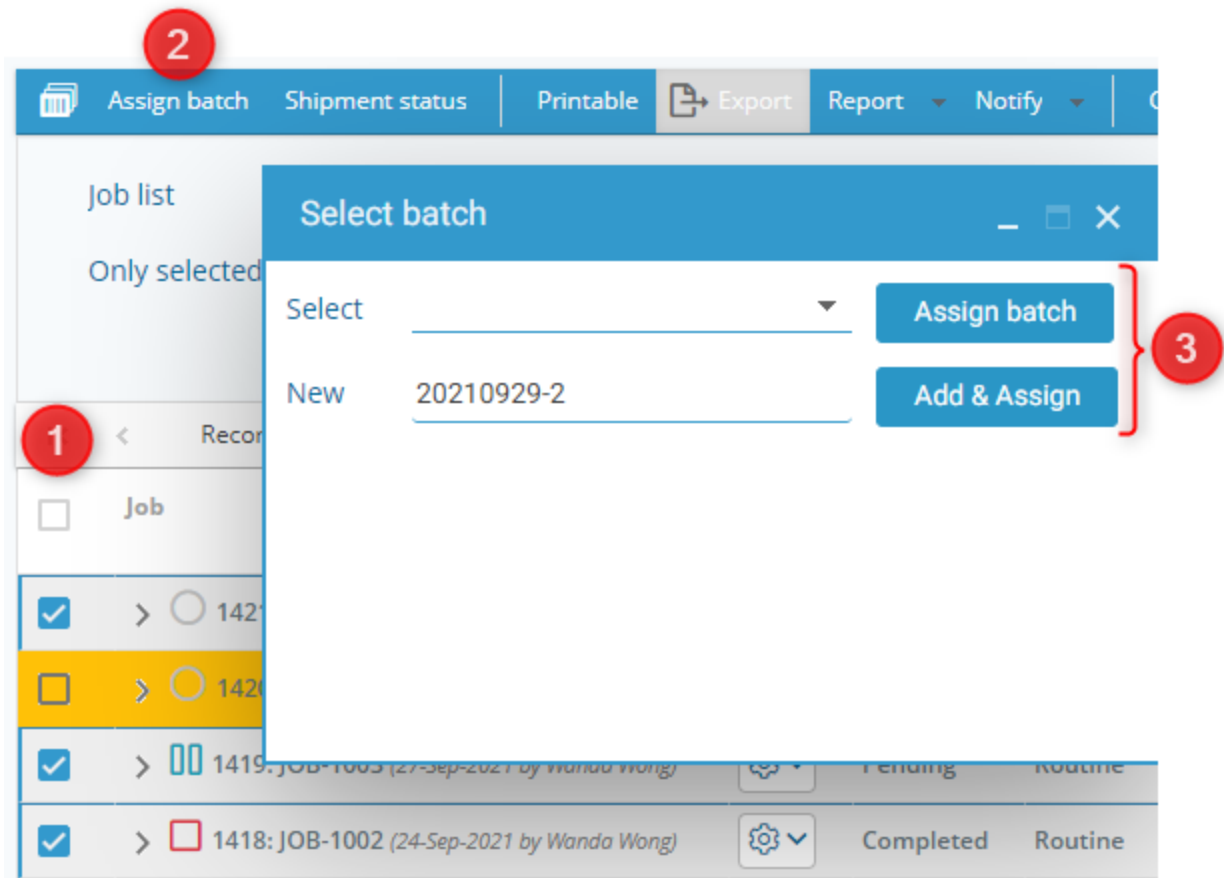
### 5.2.1.1 Bulk Print

1. You can create barcodes of multiple **samples** at once. You can even select all jobs to create a bulk barcode, however, you need to be careful. If you have a lot of jobs then the barcode printing may take a while or the page might hang up. You need to follow the below steps in order to do a bulk printing of barcode.
  - o 1. Select the jobs that you want to print the barcode for.
  - o 2. Click on the barcode printing option. A new tab in your browser will show up with different printing possibilities. If you select the generic printing then you will see the selected job samples already in the barcode label numbers.
  - o 3. You can select a template containing information that you want to create the barcode and the label type for your printer.  
Please read the Knowledge Base  [KB: how to configure printer.](#)
  - o 4. The template settings will be visible here and if not then you can adjust the settings to as you like.  
Refer to our online  [Manual page on printers.](#)
  - o 5. To visualize how you barcode will look like, you need to click on the triangle pdf button.
  - o 6. You can download the pdf of your barcode to print later if you wish.
  - o 7. You can print directly all your barcodes together.



### 5.2.1.2 Assign Batch

Assign batch allows you to add jobs to an existing or a new batch. You can view these batches under **LSM → Job → Batch List**.




1. You need to tick the checkboxes to select the jobs that you want to add in the batch.
2. Click on assign batch option , where a pop-up will appear to select batch.
3. You can can either assign already existing batch from the dropdown that will appear in front of "Select" and after selecting you need to . If you want to create a new batch, you need to write the name of the batch in front of "New" and then click on ADD & Assign.

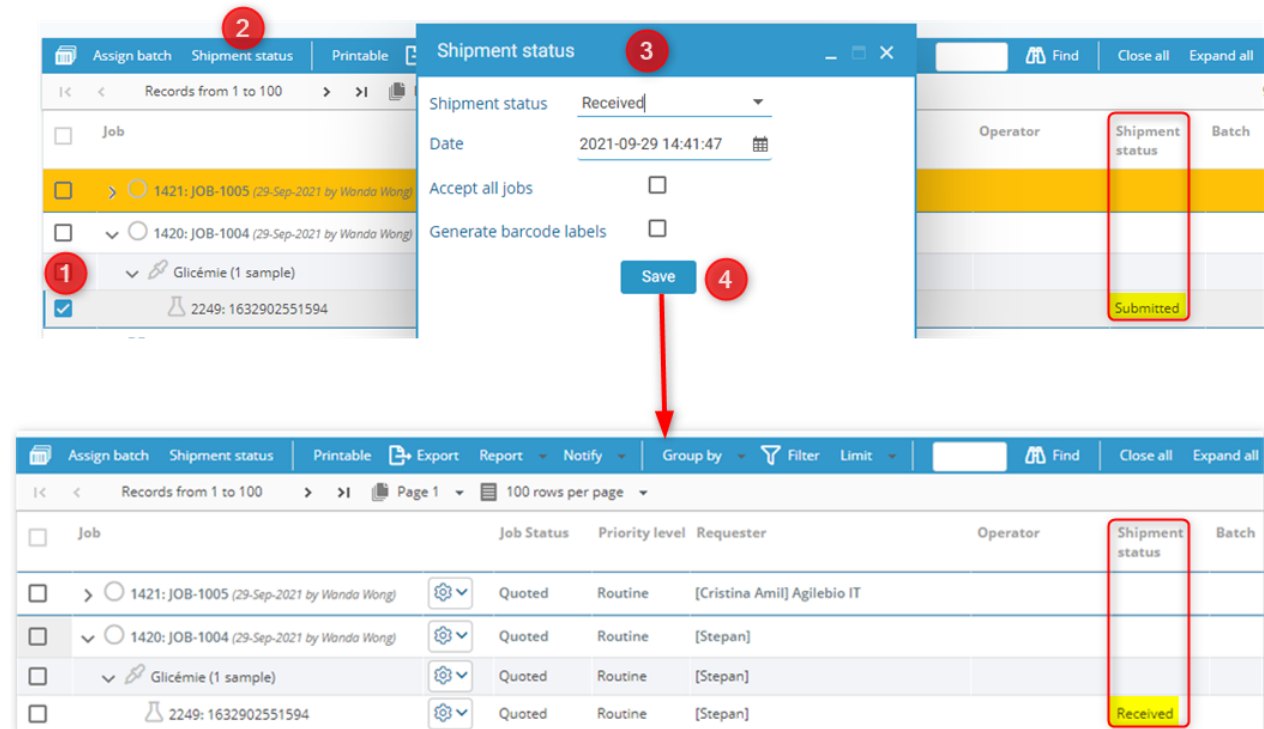
### 5.2.1.3 Shipment status


Shipment status allows you to change the "received date" for multiple samples at once.

#### ★ Tips / Hints

This shipment status can also be activated using sample receiving add-on.

Please read the Knowledge Base  [KB: how to connect LSM to Sample receiving for accepting samples.](#)



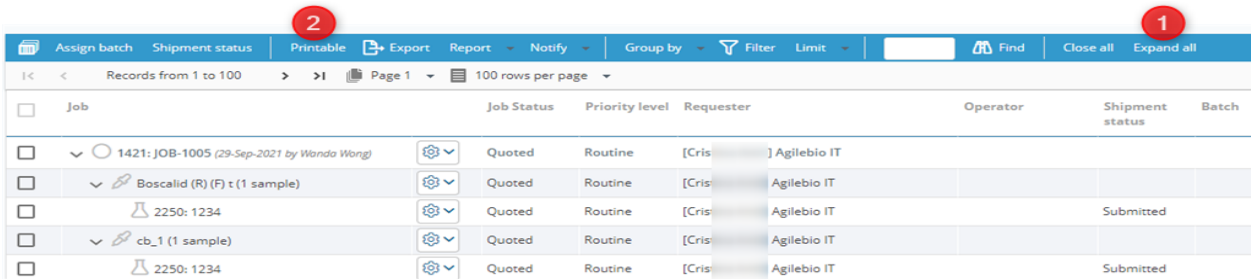
1. Check the box for the sample you want to change shipment status for.
2. Select the "Shipment status" button.
3. You will see a pop-up where you can change from the dropdown in front of shipment status the sample "submitted, In transit, Returned or Received".
  - o You can select the date and time by clicking on the small calendar icon.
  - o You can choose to accept all jobs in LSM instead of the selected ones.
  - o You can also generate barcode labels for the jobs you are selecting the shipment status for. When you click this box and save the settings, a new tab with barcode printing options will open. See  [section 5.2.1.1](#)
  - o Once you are done you can save the settings.

### 5.2.1.4 Printable

You can print all the jobs and their data or save it as pdf. When you click the "printable" button with **expand all** option, you will see a new tab with your jobs like below.

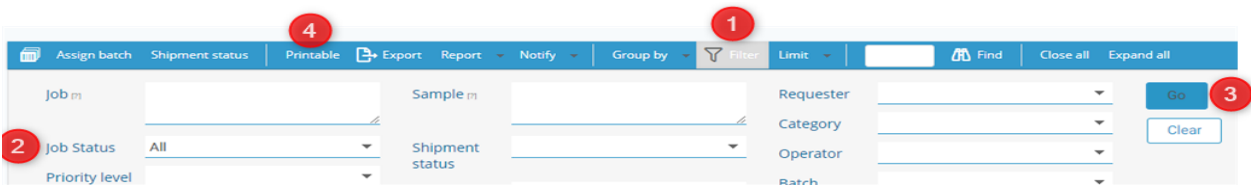
	Job	Job Status	Priority level	Requester	Operator	Shipment status	Batch
0	1421: JOB-1005 (29-Sep-2021 by Wanda Wong)	Quoted	Routine	[Crist Agile ]			
0	Boscalid (R) (F) t (1 sample)	Quoted	Routine	[Crist Agile ]			
0	2250: 1234	Quoted	Routine	[Crist Agile ]		Submitted	
0	cb_1 (1 sample)	Quoted	Routine	[Crist Agile ]			
0	2250: 1234	Quoted	Routine	[Crist Agile ]		Submitted	
0	Cholesterol LDL (1 sample)	Quoted	Routine	[Crist Agile ]			
0	2250: 1234	Quoted	Routine	[Crist Agile ]		Submitted	
0	COVID-19 (1 sample)	Quoted	Routine	[Crist Agile ]			
0	2250: 1234	Quoted	Routine	[Crist Agile ]		Submitted	

If you want to see all the information about each job then you need to choose "expand all" option and then click on the printable option.



You cannot select jobs and just print them. All the jobs will be printed by default, except the jobs in Finished status.

If you need Finished jobs you need to to "filter" options and select status all to see the finished jobs as well like below steps in image.



The job status will be either Quoted, Received, Assigned, Started, Pending, In Progress, Completed, Finished.

The test and samples will not have any value for priority levels and will show:

- "Wait" for completed job status
- "Process" for In progress jobs
- "Open" for pending/Assigned jobs

### 5.2.1.5 Export

Export option allows you export a CSV of selected job list or all jobs. You will see CSV in standard format, to separate the values into each column you need to delimit data.

Please read the Knowledge Base  [KB: how to delimit data.](#)


Once you download the CSV (without any options active) you will see the CSV like below example.

(After delimiting you will see CSV like below example image)


	A	B	C	D	E	F	G	H			K		M	N
1	JobID	JobNumbe	Date	User	CaseRecord	Gender	DOB	GH						
2	1421	JOB-1005	29/09/2021	Wanda Wong	U498 / Lopez	M	01/01/2001		2250	1234	[Cristina Amil]	Agilebio IT	Boscalid (R) (F) t	StaffGroup1_1
3	1421	JOB-1005	29/09/2021	Wanda Wong	U498 / Lopez	M	01/01/2001		2250	1234	[Cristina Amil]	Agilebio IT	cb_1	
4	1421	JOB-1005	29/09/2021	Wanda Wong	U498 / Lopez	M	01/01/2001		2250	1234	[Cristina Amil]	Agilebio IT	Cholesterol LDL	Chaneze
5	1421	JOB-1005	29/09/2021	Wanda Wong	U498 / Lopez	M	01/01/2001		2250	1234	[Cristina Amil]	Agilebio IT	COVID-19	StaffFullAccess_1
6	1421	JOB-1005	29/09/2021	Wanda Wong	U498 / Lopez	M	01/01/2001		2250	1234	[Cristina Amil]	Agilebio IT	Data trending Tests	Admin1 LSM


This option gives you possibility to also export 3 things:

- **Include job additional data:** You will see all fields under the job additional data when you create the job.

To add job refer to  [section 5.1.1](#)

- **Include sample additional data:** You will see all fields under sample level when you create a job.

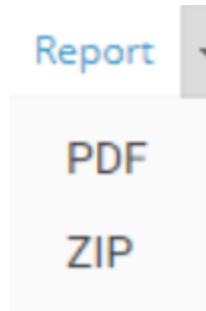
To add job refer to  [section 5.1.2](#)

- **Include case record additional data:** Here you will see case record information. It is the custom module for which you activate options by going to  [section 6.7.7](#) . You will have information about all custom fields in the custom module that you have attached as well as sample ID, name, requester, test name, operator and the batch name.

### 5.2.1.6 Report

This option can be useful when you want to print a lot of reports at once.

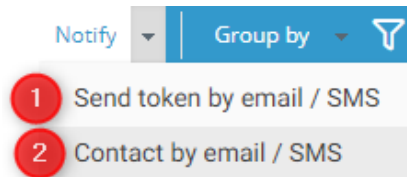
You can select jobs by checking the box in front of each job and you can create a combined report pdf for them by clicking pdf option. You will have an option to save the pdf. You can even create a zip file.





### 5.2.1.7 Notify

Notify will allow you to send token by email or SMS to the case records for example like patients.

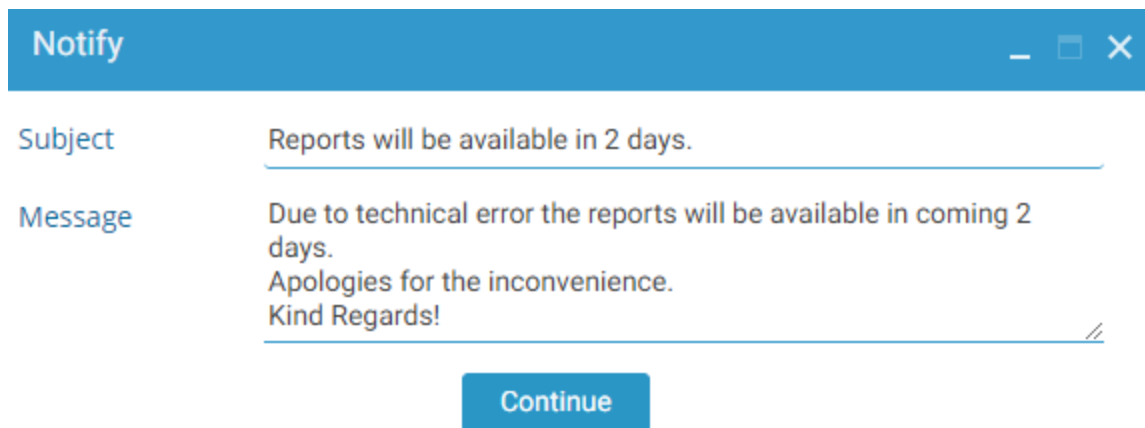


You can select multiple jobs at once and send them token by email.

1. If you want to send via SMS, make sure you have integrated SMS platform, for example like twilio in order for SMS notification.

Please read the Knowledge Base  KB: [how to send token using SMS notification.](#)

2. You can also send case records a custom message by email or SMS. For example like below.



### 5.2.1.8 Group by

You can arrange/group your jobs by different levels, like show below. To see the detailed organization you need to click on "expand all" option.

# Lab Service Manager Add-on

1

2

Assign batch Shipment status Printable Export Report Notify Group by Filter Limit 144 Find Close all Expand all

Records from 1 to 100 Page 1 100 rows per page

Job	Job Status	Priority level	Requester	Operator	Shipment status	Batch
<b>Job</b> 147: JOB-103 (18-08-2021 by NAL)	In Progress	Today	[LabCollector Lab] AgileBio			
<b>Test</b> ARN WNV (1 sample)	Started	Today	[LabCollector Lab] AgileBio			
<b>Sample</b> 23t: Raw material 1	Started	Today	[LabCollector Lab] AgileBio	Nayana Tusamda	Received	
145: JOB-15082021-NT (15-08-2021 by NAL)	Pending	Today	[LabCollector Lab] AgileBio			
ARN USUV (1 sample)	Assigned	Today	[LabCollector Lab] AgileBio			
229: 1628986672169	Assigned	Today	[LabCollector Lab] AgileBio	Nayana Tusamda	Submitted	

B

<b>Job</b> 147: JOB-103 (18-08-2021 by NAL)	In Progress	Today	[LabCollector Lab] AgileBio			
<b>Sample</b> 23t: Raw material 1	Started	Today	[LabCollector Lab] AgileBio			
<b>Test</b> ARN WNV	Started	Today	[LabCollector Lab] AgileBio	Nayana Tusamda	Received	

C

Assign batch Shipment status Printable Export Report Notify Group by Filter Limit Find Close all

Records from 1 to 100 Page 1 100 rows per page


Test	Job Status	Priority level	Requester	Operator	Shipment status
<b>Test</b> ARN USUV	Assigned (6 samples)				
<b>Sample</b> 1t: 1593611626179	Assigned	Today	[Dr Maboul] Hôpital du coin	Nayana Tusamda	Received
12: 1593611626180	Assigned	Today	[Dr Maboul] Hôpital du coin	Nayana Tusamda	Received
66: 012456	Assigned	Today	[Dr Maboul] Hôpital du coin	Nayana Tusamda	Submitted
67: 123456	Assigned	Today	[Dr Maboul] Hôpital du coin	Nayana Tusamda	Submitted
<b>Started (20 samples)</b>					
7: 1593611465498	Started	Today	[Dr Maboul] Hôpital du coin	Nayana Tusamda	Received
8: 1593611626177	Started	Today	[Dr Maboul] Hôpital du coin	Nayana Tusamda	Received
13: 1593611627545	Started	Today	[Dr Maboul] Hôpital du coin	Nayana Tusamda	Received 20200630-1
22: Sang-300620-Patient-1	Started	Today	[Dr Maboul] Hôpital du coin	Nayana Tusamda	Received 20200630-1
<b>Requested (6 samples)</b>					
66: 012456	Requested	Today	[Dr Maboul] Hôpital du coin		Submitted
67: 123456	Requested	Today	[Dr Maboul] Hôpital du coin		Submitted
69: 123	Requested	Today	[Dr Maboul] Hôpital du coin		Submitted

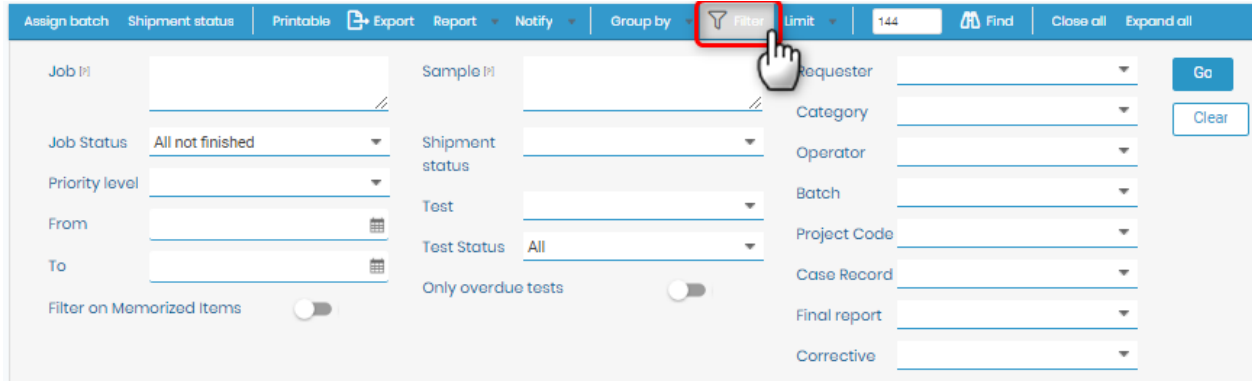
D

Batch	Job Status	Priority level	Requester	Operator	Shipment status	Batch
<b>Batch</b> test						
<b>Test</b> COVID-19 DO NOT TOUCH (2 samples)						
<b>Sample</b> 153: N123456789	Completed	Today	[LabCollector Lab] AgileBio	Super Administrato	Received	test
154: N123456789	Completed	Today	[LabCollector Lab] AgileBio	Super Administrato	Received	test
<b>nayanatest1</b>						
<b>Sérologie WNV (2 samples)</b>						
22t: 1626947408911	Started	Today	[LabCollector Lab] AgileBio	Nayana Tusamda	Received	nayanatest1
223: 1626947594774	Started	Today	[LabCollector Lab] AgileBio	NAL	Received	nayanatest1

### 5.2.1.9 Filter

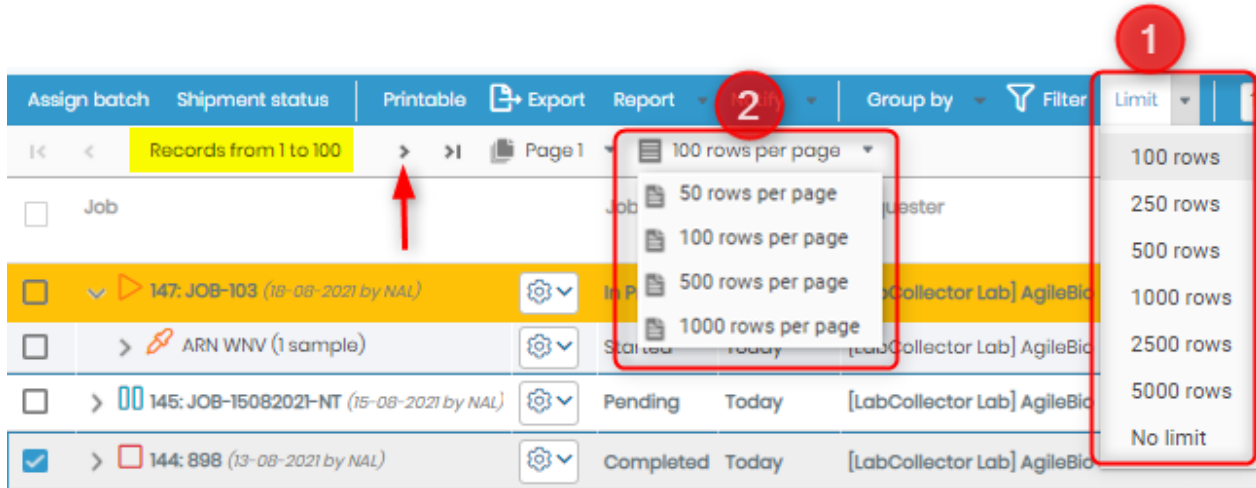
The filter option provides you to filter jobs, samples, batches and much more using various filters or their combinations. You can even create custom search filters.

To know about all filter options, please read the KnowledgeBase  [KB: how to search in LSM.](#)

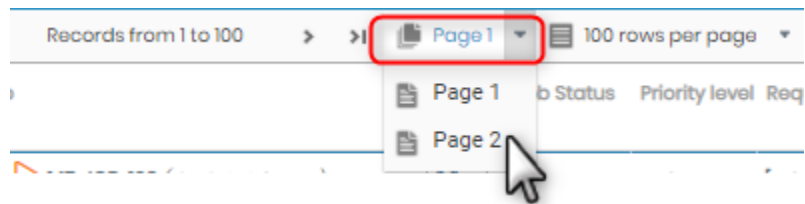


### 5.2.1.10 Limit

This will allow you to set the limit of how many rows you can see in one page. You can increase the limit by 2 ways shown in below image. To scroll through the different pages you can click on the small sign ">" or ">|" or "<" or "<|".



Or click on Page option to select the page you want to go to.



### 5.2.1.11 Find

This option allows you to find the number, ID, name of a job, test or sample that you want to find. For example we have typed the number a sample ID.

For example when you find a job ID, it will check the box in front of that job to highlight light it.

<input type="checkbox"/>	Job	Job Status	Priority level	Requester	Operator	Shipment status
<input type="checkbox"/>	147: JOB-103 (18-08-2021 by NAL)	In Progress	Today	[LabCollector Lab] AgileBio		
<input type="checkbox"/>	> ARN WNV (1 sample)	Started	Today	[LabCollector Lab] AgileBio		
<input type="checkbox"/>	> 00 145: JOB-15082021-NT (15-08-2021 by NAL)	Pending	Today	[LabCollector Lab] AgileBio		
<input checked="" type="checkbox"/>	> 144: 898 (13-08-2021 by NAL)	Completed	Today	[LabCollector Lab] AgileBio		

### 5.2.1.12 Close/Expand all

This option allows you to view the jobs as a single line or segregated into the job, test, sample or batch lines depending upon what you choose to group your jobs.

Assign batch Shipment status Printable Export Report Notify Group by Filter Limit Find Close all Expand all

Records from 1 to 100 Page 1 100 rows per page 102 samples

Job	Job Status	Priority level	Requester	Operator	Shipment status	Batch
147: JOB-103 (18-08-2021 by NAL)	In Progress	Today	[LabCollector Lab] AgileBio			
145: JOB-15082021-NT (15-08-2021 by NAL)	Pending	Today	[LabCollector Lab] AgileBio			
144: 898 (13-08-2021 by NAL)	Completed	Today	[LabCollector Lab] AgileBio			
142: JOB-101 (11-08-2021 by NAL)	Pending	Today	[Mr Visata]			

**Job Level** [ ]

Assign batch Shipment status Printable Export Report Notify Group by Filter Limit Find Close all Expand all

Records from 1 to 100 Page 1 100 rows per page 100 jobs, 102 samples

Job	Job Status	Priority level	Requester	Operator	Shipment status	Batch
147: JOB-103 (18-08-2021 by NAL)	In Progress	Today	[LabCollector Lab] AgileBio			
ARN WNV (1 sample)	Started	Today	[LabCollector Lab] AgileBio			
231: Raw material 1	Started	Today	[LabCollector Lab] AgileBio	Nayana Tusamda	Received	
145: JOB-15082021-NT (15-08-2021 by NAL)	Pending	Today	[LabCollector Lab] AgileBio			
ARN USUV (1 sample)	Assigned	Today	[LabCollector Lab] AgileBio			
229: 1628986672169	Assigned	Today	[LabCollector Lab] AgileBio		Submitted	
144: 898 (13-08-2021 by NAL)	Completed	Today	[LabCollector Lab] AgileBio			
RT-qPCR COVID 19 (copy) (1 sample)	Completed	Today	[LabCollector Lab] AgileBio			
228: 785874nn	Completed	Today	[LabCollector Lab] AgileBio	NAL	Received	
142: JOB-101 (11-08-2021 by NAL)	Pending	Today	[Mr Visata]			
ARN USUV (1 sample)	Assigned	Today	[Mr Visata]			
228: 1628981979982	Assigned	Today	[Mr Visata]		Submitted	

**Job Level** [ ]

**Test Level** [ ]

**Sample Level** [ ]

## 5.3 Job management

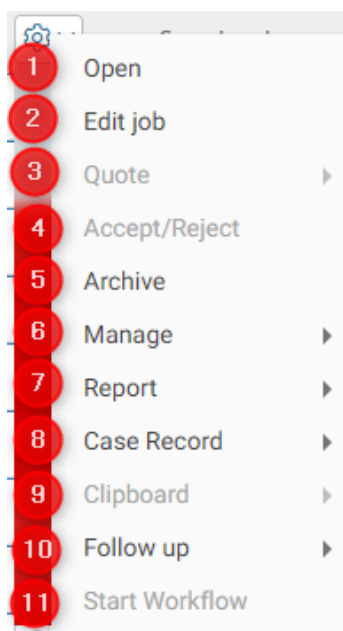
Once the job is created you can manage various ways. The final destination of a job that is correctly done, is to reach Finished status.

You can also delete or Archive a job if you wish you.

Below are various job options are explained.

### Warning

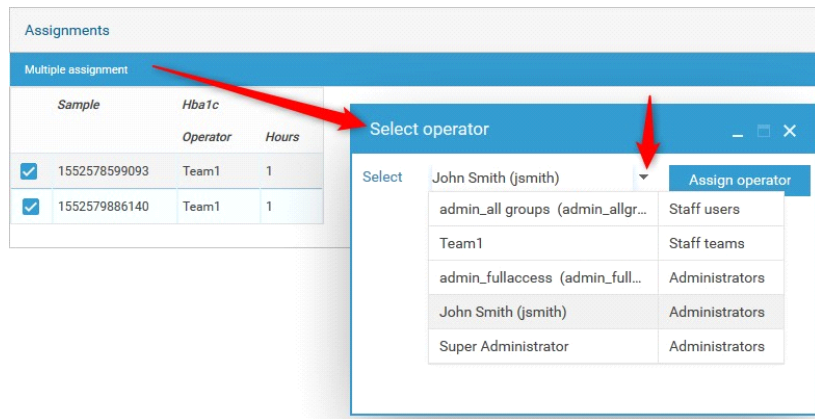
Not all options will be visible at all times. Some options will be visible only when the jobs reach a certain status.



By default, the job is assigned to the operator that you selected in the test configuration.

Before entering results, you can assign the job/samples to another operator. You can do it sample-by-sample or in batch with multiple assignment. Click on the **Options** button of your job/test, go to **Manage > Assignments**. Select the samples of interest, click on Multiple assignment and choose the new operator in the popup.





To start a job, expand it in the Job List and select your *sample* of interest by going to **Options > Open**. Details are displayed in a new pop-up; select an operator and complete any other required/optional job fields, then click on the **Save & Start** button to begin work on the sample.

In the lower portion of the popup there are several items that are often useful to complete when starting some jobs, if required:

- **Input parameters:** Lab designated parameters as input for a job. *These can only be input at the time of starting a job.*
- **Reagents & Supplies:** Lab designated reagents and supplies associated to the job/test/assay. *These can only be input at the time of starting a job.*
- **Protocol:** list of protocols and equipment categories for the job. The equipment may be selected and the protocol can be downloaded and/or viewed. *These can only be input at the time of starting a job*

Mandatory fields are marked with an asterisk.


### **5.2.1 Open**


You can open a created job and execute it depending on your job status. All the status and their options are explained in following sections.

### 5.2.1.1 Quoted job

#### **Quoted:**


You need to accept the quote in order to open the job.

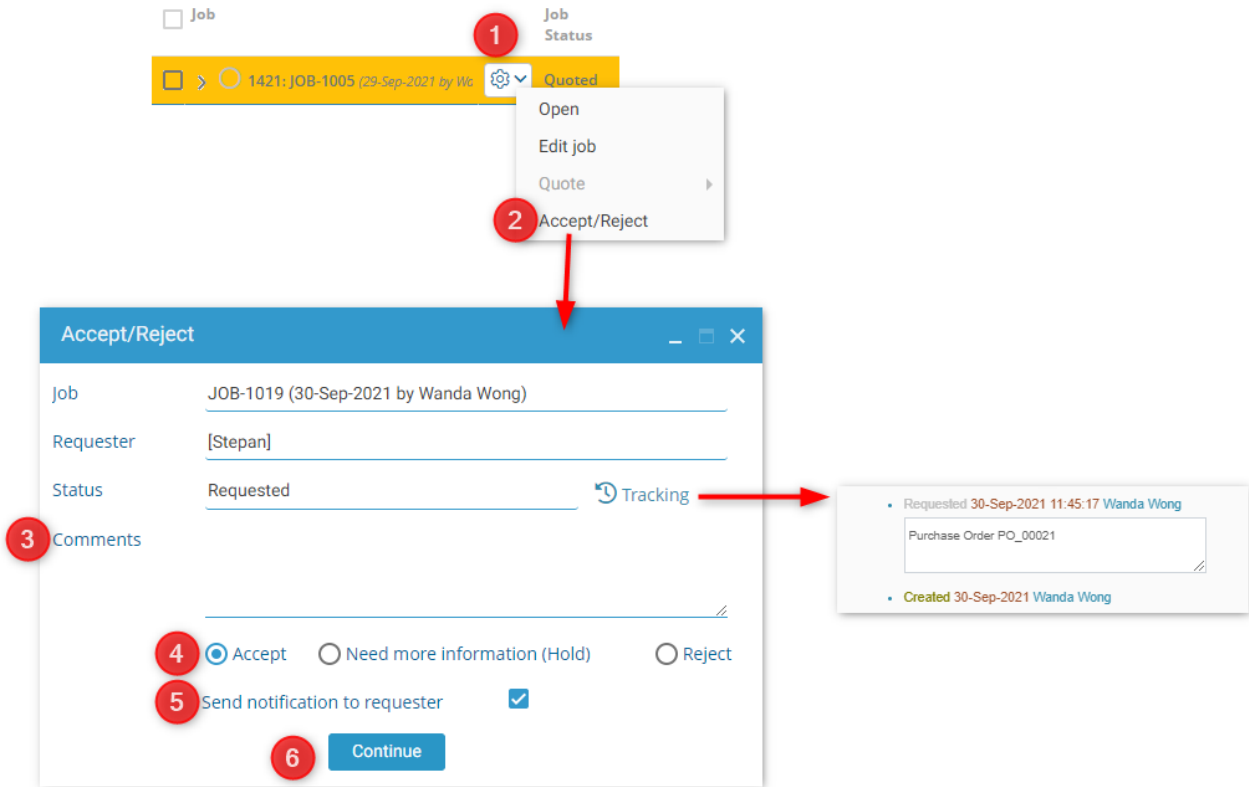
If the job is in quoted status then you need to follow the steps in  [section 5.2.3](#)

For creating jobs via LSM and LSMRemote please refer to our  KB: [how to create and execute a job.](#)

### 5.2.1.2 Requested job

**Requested:** You need to accept the job in order to open and execute it.

For creating jobs via LSM and LSMRemote please refer to our  [KB: how to create and execute a job.](#)



1. If the job is in requested status then you need to accept it by clicking on job status.
2. You need to select Accept/Reject option
3. You can add comment on the job if you require. You can also track status of the sample by clicking on the tracking icon.
4. You can
  - o Accept the job. The job status will be changed to "Pending" and the sample & Test level will be on Assigned status.

Job level	<input type="checkbox"/>	1435: JOB-1019 (30-Sep-2021 by Wanda Wong)		Pending
Test level	<input type="checkbox"/>	RTPCR-COVID (1 sample)		Assigned
Sample level	<input type="checkbox"/>	2267: 1632989508935		Assigned

- o You can choose to keep the sample on the hold to have more information about it. Your job will be in Hold status.

You can search for all "On hold" jobs by going to **LSM → Job → Job list → Filter → Job status**

<b>Job level</b>	<input type="checkbox"/> <input type="radio"/>	607: JOB-347 (25-Mar-2021 by Wanda Wong)		On hold
<b>Test level</b>	<input type="checkbox"/>	ghTest01 (1 sample)		On hold
<b>Sample level</b>	<input type="checkbox"/>	1290: 1616685225590		On hold

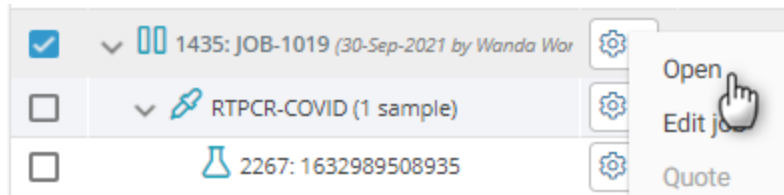
- You can also Reject the sample (for example in case the sample is not viable or the information about it is incorrect). The status of the job will be rejected.  
You can search for all "On hold" jobs by going to **LSM → Job → Job list → Filter → Job status**

<b>Job level</b>	<input type="checkbox"/> <input type="radio"/>	1253: JOB-854 (03-Aug-2021 by Wanda Wong)		Rejected
<b>Test level</b>	<input type="checkbox"/>	ghTest01 (1 sample)		Rejected
<b>Sample level</b>	<input type="checkbox"/>	2074: 1627992990756		Rejected

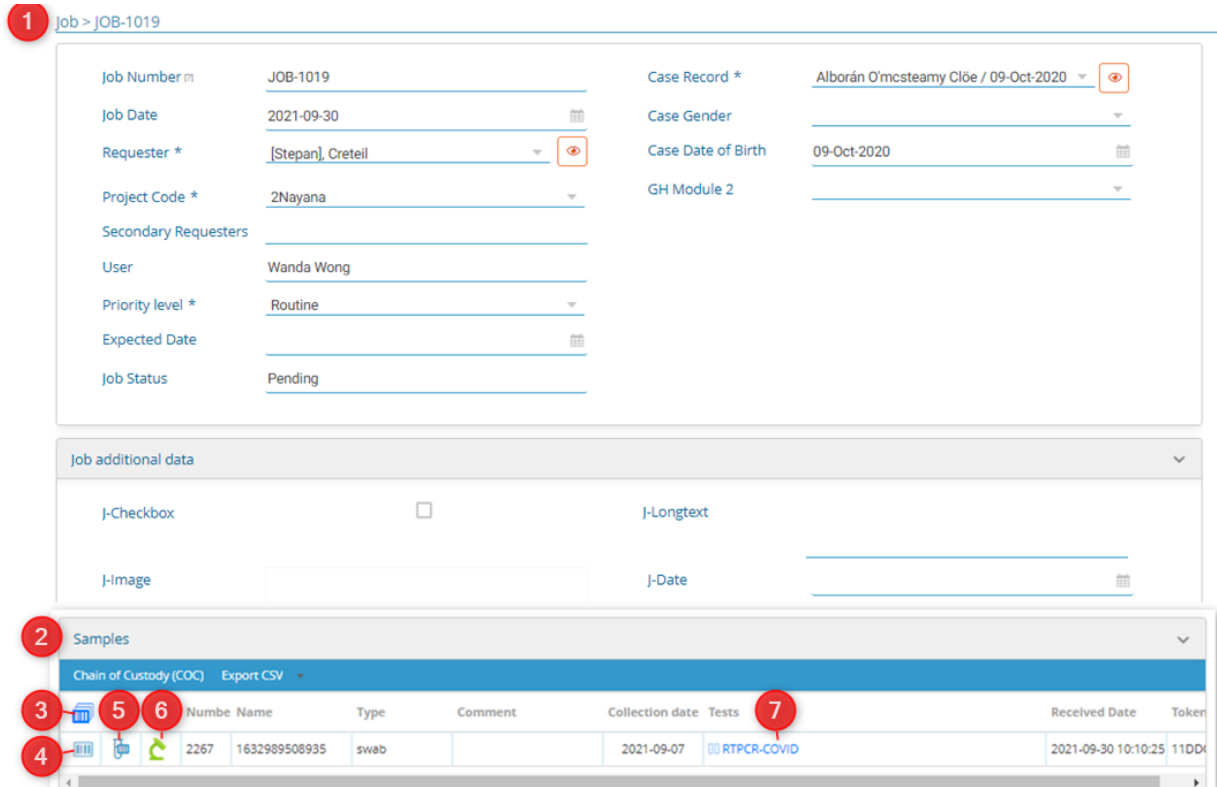
5. You can choose to send notification to requester by tick marking the checkbox.
6. Once you are done you can click on continue.

### 5.2.1.3 Pending job


You can open a pending job in order to execute it. When you open the job in pending status.




When you open the job you will see a screen like below example image.



1. You will see all the fields related to job and custom fields you created at the job level.

The eye icon  shows you all the information about the attached record in the custom module.

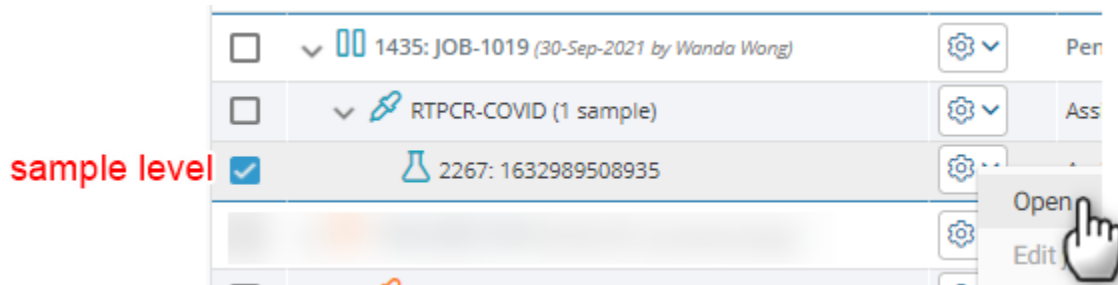
The eye icon  shows you all the information about the requester(provider/client/sample collection center or person).

Please refer to [section 5.1.1](#)

For creating jobs via LSM and LSMRemote please refer to our [KB: how to create and execute a job.](#)

2. You will see all the fields at the sample level.

Please refer to [section 5.1.2.](#) You can also directly execute by going to sample level



- This option will take you directly to print barcode options in **LSM → Admin → Barcode labels**. You will see a lot of options to configure you barcode settings.

Refer to our online  [Manual page on printers.](#)


Please refer to  [section 5.2.1.1](#) &  [section 6.6](#)

- This option will take you to print the barcode of the sample. This will not allow you to configure alot of options for the barcode settings.

Please refer to our  [KB: how to print barcodes.](#)

- This option takes you to barcode printing where you have more options like point 3 above.

- This green LabCollector icon helps you to create the sample inside LSM as an record inside LabCollector. When you click on this option, sample module will open and you will be save this sample as a record. When it is linked to a sample in module it will be green.


You can also create samples automatically for projects inside LabCollector by going to **LSM → Admin → Setup → Project & Modules**. Also see  [section 6.7.6](#)

Please refer to our  [KB: what is a record.](#)

Please refer to our  [KB: what is sample module.](#)

 Note

If the sample is not connected to the sample in module then this icon will be black in colour.

- Here you will see a link to open test and execute it. You will see all the parameters you have a created in test level. Please see  [section 5.1.3.](#)

You can also open test by directly going at the test level.

test level

<input type="checkbox"/>	1435: JOB-1019 (30-Sep-2021 by Wanda War	Pending	Routine
<input checked="" type="checkbox"/>	RTPCR-COVID (1 sample)		
<input type="checkbox"/>	2267: 1632989508935		

Job > JOB-1019 > RTPCR-COVID

Samples

Chain of Custody (COC) Export CSV

	Numbe	Name	Type	Comment	Collection date	Tests
2267	1632989508935	swab			2021-09-07	RTPCR-COVID

- o See section 5.2.1.3.1 to see how to complete test.



### 5.2.1.3.1 Test execution (Assigned)

When you open the test it you will see a screen like below example image where you can see the status of your test.

*\*Below is an example image, you might see a little different fields which are configured as per requirements.*

**1** Assigned Started Completed Approved

Job name Sample name Test name  
JOB-1019 (Stepan) > 1632989508935 > RTPCR-COVID

**9** Save & Start **2**  Accreditation Active

Sample	1632989508935	Case Record	Alborán O'mcsteamy Cl <b>4</b>
Type	swab <b>3</b>	Case Gender	
Number	2267	Case Date of Birth	09-Oct-2020
Collection date	07-Sep-2021	Submitter	Wanda Wong
Comment		Date	30-Sep-2021 10:12:45
Received Date	30-Sep-2021 10:10:25	Test	RTPCR-COVID
Estimated Start Date	30-Sep-2021 10:10:25	Estimated End Date	30-Sep-2021 12:10:25
Time Left	-0d 2h <b>5</b>	Operator *	StaffFullAccess_1 (Staff)
		Range *	Range 1

**6** Input Parameter

Parameter	Value	Unit
T-Checkbox *	<input checked="" type="checkbox"/>	

**7** Reagents & Supplies


Reagent	Quantity	Lots
Extraction buffer A (EBA) 2	12	1581770090 (43.00) 2021-12-17
RIPA buffer	1	700655706 (482.00) 2025-12-31
TE Buffer	5	924155206 (99.00) 2025-07-31

**8** Protocol & Equipment

Protocol	Equipment Category	Equipment Name	Schedules	File
	PCR Machines	Bioanalyzer	▲ Schedule	
	PCR Machines	qPCR StepOne -1 calibration (minor) 2017-02-01	▲ Schedule	
Covid protocol	PCR Machines	Bioanalyzer	▲ Schedule	Download
	PCR Machines	Bioanalyzer	▲ Schedule	

1. Here you see the job status as you move along the job. The one you are currently will be

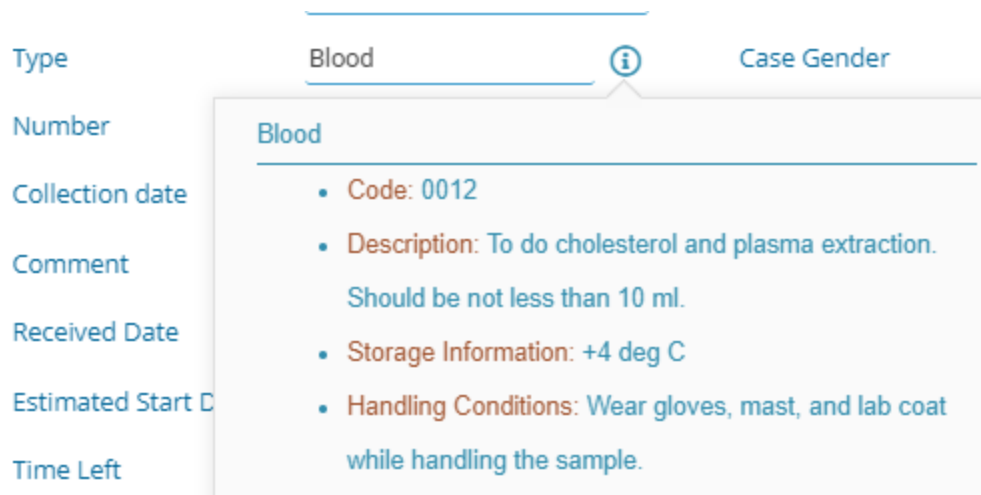
highlight in their specific colour. Once you finished assigned state it will move to started state in orange colour.



- If you need to activate accreditation for a job you can check the box and activate it here. Refer to our  KB: [how to add accreditation.](#)

 **Warning**

If you try to remove the accreditation then you will have to add a reason which will be added in audit log in [LSM → Admin → Logs.](#)

- If you click on the the information icon you will be able to see the information (example image below) about the sample that is mentioned in [LSM → Admin → Preferences → Sample types.](#)



- The eye icon will show you the information about the case record. You will see all the field in the attached module and the information related to it in the case record.
- This is the person who will be handling the job or performing the test. You can change this information when a job is pending. It can be a single individual or a team containing several group members. You can create these operators in [LSM → Admin → Contacts → Users.](#) Please refer to  [section 6.1.2](#)
- Here you will see all the parameters that you created at test level as Input parameters which you need to fill in order to go forward in the test. Please refer to  [section 6.4.2.1](#)

 **Warning**

Be very careful while adding jobs as there is little possibility to change or alter fields/parameter values once the job is created.

- If you have fill "Reagents 1 Supplies" that you filled during creating a test. [LSM → Admin](#)

→ **Preferences** → **Test**. Refer to [section 6.4.4](#)

You will see the reagents from Reagents&Supplies module and even the lots related to each reagent. You can choose from the dropdown the lot you need to select and enter manually the quantity that will be utilized during the test execution. This quantity will be subtracted from the original lot in the Reagents & Supplies module.

**Note**

FIFO (First In First Out) is NOT active in LSM, so be careful while choosing your lot. Please see [OUR online Manual page on FIFO](#).

8. Here you can add the protocol & equipment that you add during creating test.
  - o The equipment here are connected to the Equipment module.
  - o You can also schedule the equipment in the Scheduler add-on. This is an add-on to reserve the laB equipment for a specific day pr time for performing experiments. Double click on the time of the day to schedule your reservation. You can also edit the name of your reservation or delete it, if you create it by error. *See the below image.*

**Note**

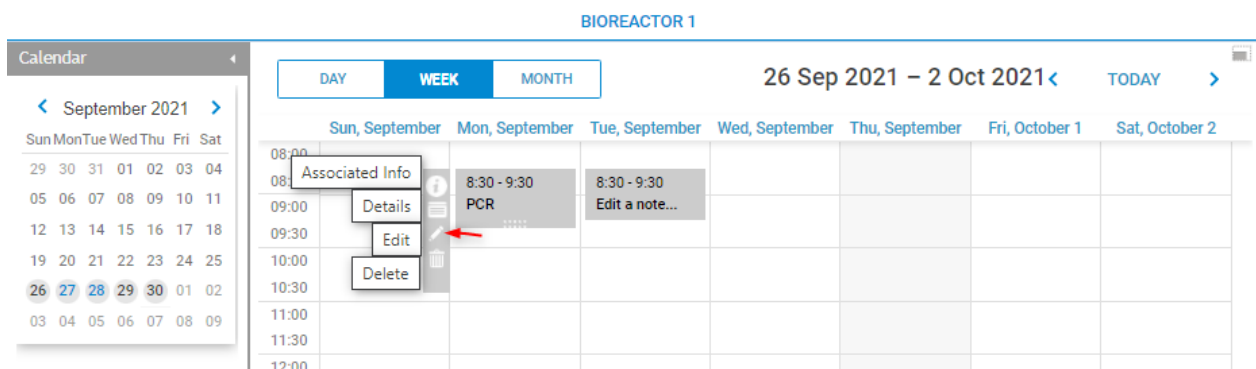
For this you need to have the scheduler icon purchased. If you don't have scheduler you will not be able to see this scheduling part.

- o You can also download the protocol that you created or attached while creating the test.

See **LSM** → **Admin** → **Preferences** → **Test**. Refer to [section 6.4.4](#)

**Warning**

Equipment that are in maintenance CANNOT be selected in the LSM job.



9. Once you are done, please click on save & start button. You will see a pop up asking if you are sure if you want to submit the job. If you click on OK you test will move to started status. If you click o the cancel then the job will stay on the same page.

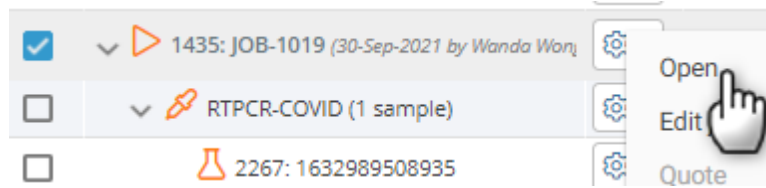
Are you sure you want to submit  
information?

OK

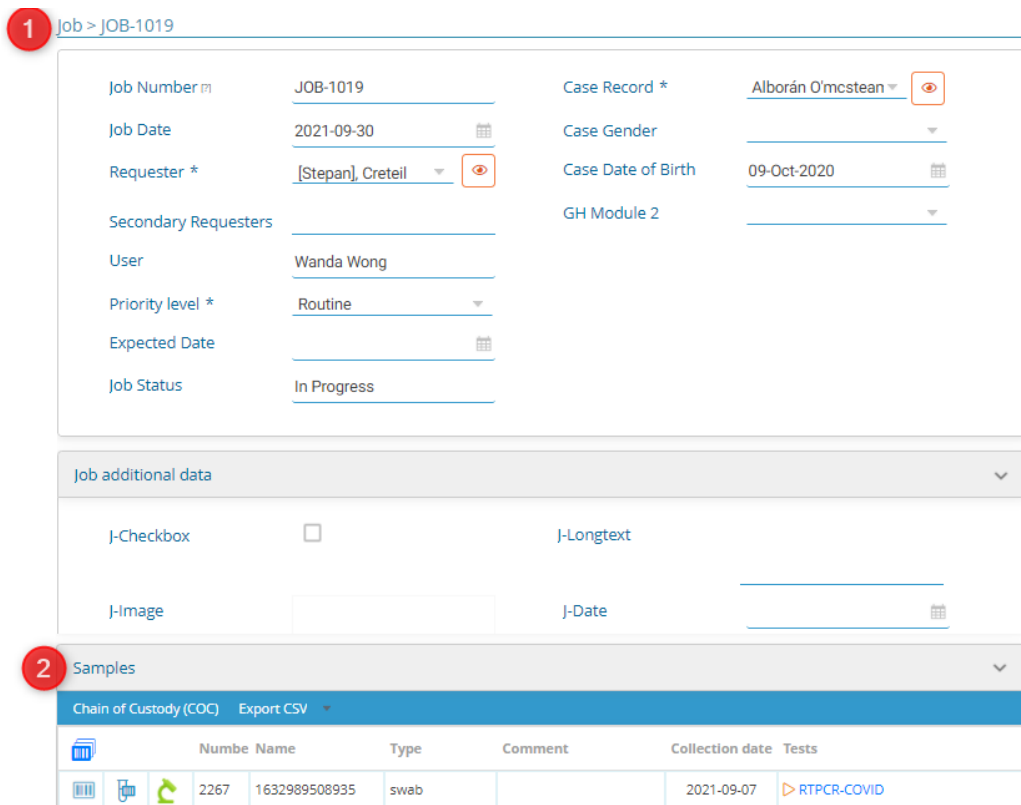
CANCEL

### 5.2.1.4 Started job

As you move to started status (See [📖 section 5.2.1.3.1](#)) you will see the result parameters. You can open a pending job in order to execute it. When you open the job in pending status.



When you open the job you will see a screen like below example image.



1. You will see all the fields related to job and custom fields you created at the job level.

The eye icon shows you all the information about the attached record in the custom module.

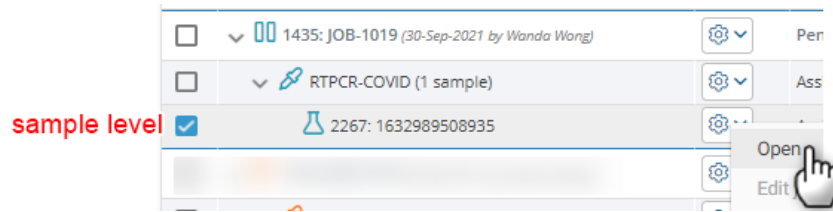
The eye icon shows you all the information about the requester(provider/client/sample collection center or person).





Please refer to [📖 section 5.1.1](#)

For creating jobs via LSM and LSMRemote please refer to our [📖 KB: how to create and execute a job.](#)

2. You will see all the fields at the sample level.

Please refer to [section 5.1.2](#). You can also directly execute by going to sample level



-  This option will take you directly to print barcode options in **LSM → Admin → Barcode labels**. You will see a lot of options to configure you barcode settings. Refer to our online [Manual page on printers](#). Please refer to [section 5.2.1.1](#) & [section 6.6](#)
-  This option will take you to print the barcode of the sample. This will not allow you to configure alot of options for the barcode settings. Please refer to our [KB: how to print barcodes](#).
-  This option takes you to barcode printing where you have more options like point 3 above.
-  This green LabCollector icon helps you to create the sample inside LSM as an record inside LabCollector. When you click on this option, sample module will open and you will be save this sample as a record. When it is linked to a sample in module it will be green. You can also create samples automatically for projects inside LabCollector by going to **LSM → Admin → Setup → Project & Modules**. Also see [section 6.7.6](#) Please refer to our [KB: what is a record](#). Please refer to our [KB: what is sample module](#).

**Note**  
If the sample is not connected to the sample in module then this icon will be black in colour.

- Here you will see a link to open test and execute it. You will see all the parameters you have a created in test level. Please see [section 5.1.3](#). You can also open test by directly going at the test level. See [section 5.2.1.3.1](#) on how to complete test.

#### 5.2.1.4.1 Test execution (Started)

*\*Below is an example image, you might see a little different fields which are configured as per requirements.*

Assigned **1** Started **2** Completed Approved **2** [Status tracking](#)

Job name Requester Sample Test name  
 JOB-1019 (Stepan) > 1632989508935 > RTPCR-COVID

**12** Save Save & Complete **3**  Accreditation Active

Sample	1632989508935	Case Record	Alborán O'mcsteamy Cl <b>4</b>
Type	swab <b>5</b>	Case Gender	
Number	2267	Collection date	07-Sep-2021
Comment		Case Date of Birth	09-Oct-2020
Date	30-Sep-2021 10:12:45	Submitter	Wanda Wong
Test	RTPCR-COVID	Received Date	30-Sep-2021 10:10:25
Estimated End Date	30-Sep-2021 12:10:25	Estimated Start Date	30-Sep-2021 10:10:25
Operator *	StaffPFu (StaffPFu)	Time Left	-0d 3h
Range *	Range 1	Hours *	2

**6** Input Parameter

Parameter	Value	Unit
T-Checkbox *	<input checked="" type="checkbox"/>	

**7** Reagents & Supplies

Reagent	Quantity	Lots
Extraction buffer A (EBA) 2	12	1581770090 (43.00) 2021-12-17
RIPA buffer	1	700655706 (482.00) 2025-12-31
TE Buffer	5	924155206 (99.00) 2025-07-31

**8** Protocol & Equipment

Protocol	Equipment Category	Equipment Name	Schedules	File
	PCR Machines	qPCR StepOne -1	Schedule	
	PCR Machines	Bioanalyzer	Schedule	
Covid protocol	PCR Machines	Bioanalyzer	Schedule	Download
	PCR Machines	Bioanalyzer	Schedule	

**9** Result Parameter **10**

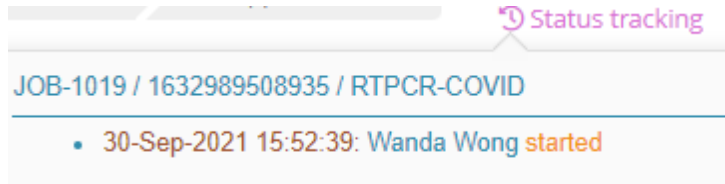
Parameter	Value	Uncertainty	Unit	Phrase	Comment	Range
RT-qPCR COVID 19 *	Negative			test successful		10 - 40
Param Multi Test *	Negative			test successful		
	Positive			test not-successful		
	Not-detected			need more sample		
	Invalid					
	Detected					


**11** General comment

Rich text editor toolbar with icons for undo, redo, bold, italic, underline, strikethrough, font color, background color, link, unlink, source, and help.



1. Here you will see the status that you are currently on.
2. This is the tracking icon that will be only available when you have purchased the compliance icon is ON in **LSM → Admin → Preferences → Regulation**. It will information about who started the job and completed each status with date and timestamp.

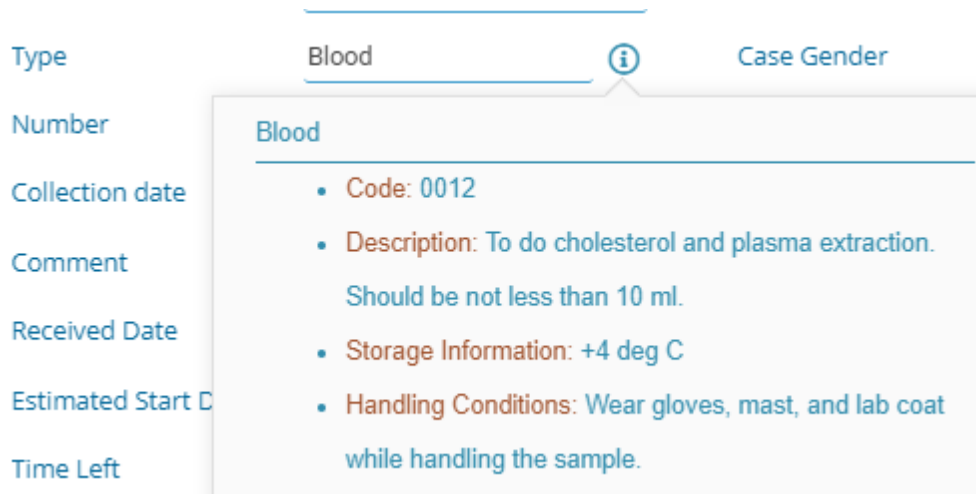






3. If you need to activate accreditation for a job you can check the box and activate it here. Refer to our  KB: [how to add accreditation.](#)

**Warning**

If you try to remove the accreditation then you will have to add a reason which will be added in audit log in **LSM → Admin → Logs**.

4. The eye icon will show you the information about the case record. You will see all the field in the attached module and the information related to it in the case record.
5. If you click on the the information icon you will be able to see the information (example image below) about the sample that is mentioned in **LSM → Admin → Preferences → Sample types**.



6. Please refer to  [section 5.2.1.3.1](#)
7. Please refer to  [section 5.2.1.3.1](#)
8. Please refer to  [section 5.2.1.3.1](#)
9. Result tab will show you all the parameters that you created at the test level. See **LSM → Admin → Preferences → Test**. Refer to  [section 6.4.4](#)
  - o You will need to input the values for your result parameters. If you allot the colours to each valuelist then you will also see it here.

Refer to [section 6.4.2.2](#)

- You will also see phrases that you enter while creating the test.
- You can add a comment if you require.
- The range (If you add during creating test) will be visible here.

See **LSM → Admin → Preferences → Test**. Refer to [section 6.4.4](#)

10. This is the tracking icon that will be only available when you have purchased the compliance icon is ON in **LSM → Admin → Preferences → Regulation**. It will information about has updated the fields of the results. This will show if in case only save the job and not save & complete it to move to another status level. The tracking will be date & time stamped.

Phrase	Comment	Range
test successful		10 — 40
JOB-1019 / 1632989508935 / RTPCR-COVID / RT-qPCR		
COVID 19		
<ul style="list-style-type: none"> <li>• 30-Sep-2021 16:21:03: Wanda Wong</li> </ul>		
Negative [test successful]		

11. General comment allows you to type a comment or description of a specific information that you need to associate with the test. if you dont have anything to add you can leave it empty.

12. Once you complete adding all the information, you can do 2 things:

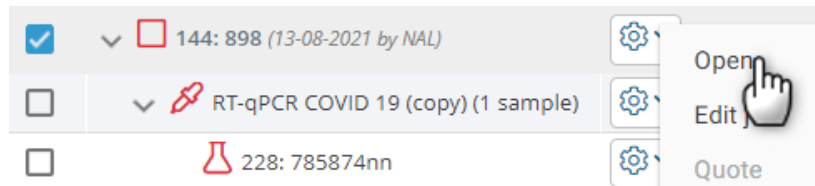
- Just save the job, this will save all the information you added without moving ahead.
- Save & Complete job will save all the information you added with moving ahead status wise. . You will be asked if you are sure to save the information. If you click on OK you test will move to started status. The status will move to red Completed status. If you click o the cancel then the job will stay on the same page.

Are you sure you want to submit information?

### 5.2.1.5 Completed job

As you move to started status (See [section 5.2.1.3.1](#)) you will see the result parameters.

You can open a pending job in order to execute it. When you open the job in pending status.



When you open the job you will see a screen like below example image.

**1** Job > 898

Job Number	898	Case Record *	Isabella / 02-12-1970
Job Date	2021-08-13	Case Gender	FEMALE
Requester *	[LabCollector Lab] A	Case Date of Birth	02-12-1970
Project Code *			
User	NAL		
Priority level *	Today		
Expected Date			
Purchase Order			
Job Status	Completed		

Job additional data

**2** Samples

Chain of Custody (COC) Export CSV

	Numbe	Name	Type	volume	Comment	Tests	
			228	785874nn	Swabs	0.1	002 RT-qPCR COVID 19 (copy)

1. You will see all the fields related to job and custom fields you created at the job level.

The eye icon shows you all the information about the attached record in the custom module.

The eye icon shows you all the information about the requester(provider/client/sample collection center or person).

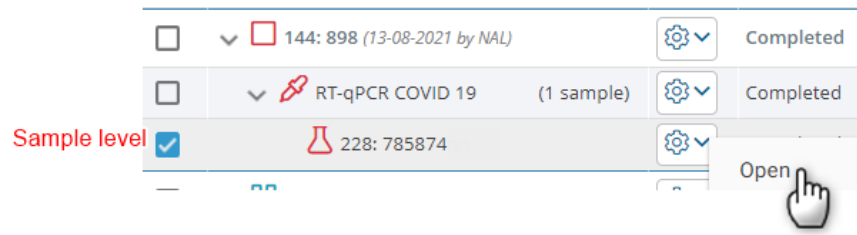
Please refer to [section 5.1.1](#)


For creating jobs via LSM and LSMRemote please refer to our [KB: how to create and](#)

[execute a job.](#)

2. You will see all the fields at the sample level.


Please refer to [section 5.1.2](#). You can also directly execute by going to sample level




-  This option will take you directly to print barcode options in **LSM → Admin → Barcode labels**. You will see a lot of options to configure you barcode settings.

Refer to our online [Manual page on printers](#).

Please refer to [section 5.2.1.1](#) & [section 6.6](#)

-  This option will take you to print the barcode of the sample. This will not allow you to configure alot of options for the barcode settings.

Please refer to our [KB: how to print barcodes](#).

-  This option takes you to barcode printing where you have more options like point 3 above.

- This green LabCollector icon helps you to create the sample inside LSM as an record inside LabCollector. When you click on this option, sample module will open and you will be save this sample as a record. When it is linked to a sample in module it will be green.

You can also create samples automatically for projects inside LabCollector by going to **LSM → Admin → Setup → Project & Modules**. Also see [section 6.7.6](#)

Please refer to our [KB: what is a record](#).

Please refer to our [KB: what is sample module](#).

**Note**

If the sample is not connected to the sample in module then this icon will be black in colour.

3. Here you will see a link to open test and execute it. You will see all the parameters you have a created in test level. Please see [section 5.1.3](#).

You can also open test by directly going at the test level.

See [section 5.2.1.3.1](#) on how to complete test.

#### 5.2.1.5.1 Test execution (completed)

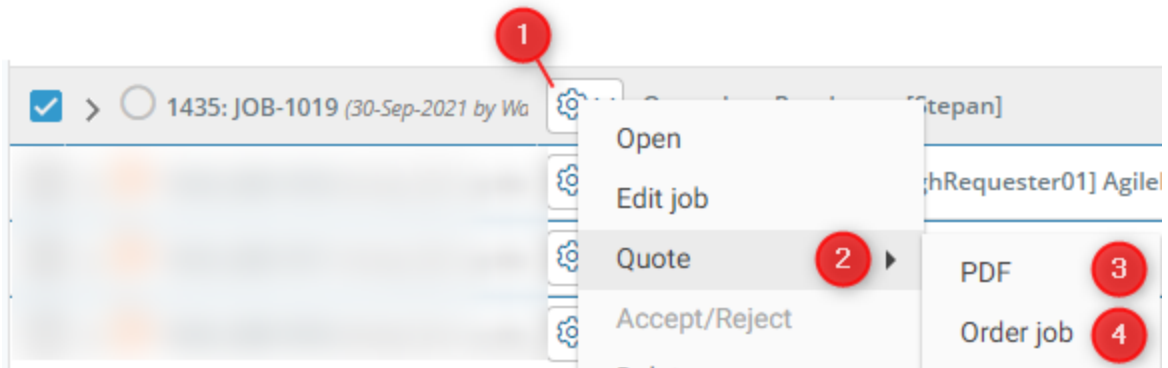
*coming soon.....*

## **5.2.2 Edit job**

*coming soon.....*

### 5.2.3 Quote

Quoted: You need to accept the purchase order. The Invoice for the same will be added in the **LSM → Admin → Invoice**.



1. You need to click that provides job options.
2. To accept a quote you need to choose quote option.
3. When you click the pdf option you will see the invoice;

You need to set the template for invoices in **LSM → Admin → Preferences → Reports & Invoice template**. You can download or print the invoice.

Please refer to [📖 section 6.4.9.2](#)





Once you Submit the job status will change from quoted to requested.



## **5.2.4 Accept/Reject**

*coming soon.....*

## **5.2.5 Archive**

*coming soon.....*

## **5.2.6 Manage**

*coming soon.....*

## **5.2.7 Report**

*coming soon.....*

## **5.2.8 Case Record**

*coming soon.....*

## 5.2.9 Clipboard

*coming soon.....*

## **5.2.10 Follow up**

*coming soon.....*



### **5.2.11 Start Workflow**

*coming soon.....*

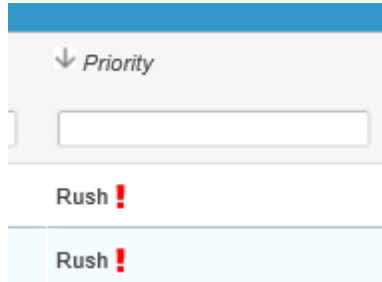
## 5.4 Batch List

The **Batch List** found from **Job > Batch List** provides a list of assays/batches/samples that have been assigned to a batch. This view provides a list that can be filtered and sorted by assay, batch, number of pending samples and total samples. You may filter and sort based on multiple columns.

Clicking on a row brings up a popup that allows the editing of information for the batch.

## 5.5 New Samples List

The **Samples Lists** found from **Job menu (New, Pending or Canceled)** provide a list that includes columns that may be searched, filtered, or sorted for Job, Sample, Test, Priority, Expected (date), Customer, Operator, Batch, and flagged samples. Sorting by ascending or descending order is done by clicking on the column header, after which an arrow will indicate the sorting preference:



The new samples list allows having all the new samples independently of the job or the test. You can start the process one by one by clicking the sample or assign a batch, modify the status and do multiple assignments on multiple samples.

The pending samples list allows you to have in one list all the samples from which the test is started and in progress.

The canceled samples list allows you to export the entire list of canceled samples.

## 5.6 Pending Samples List

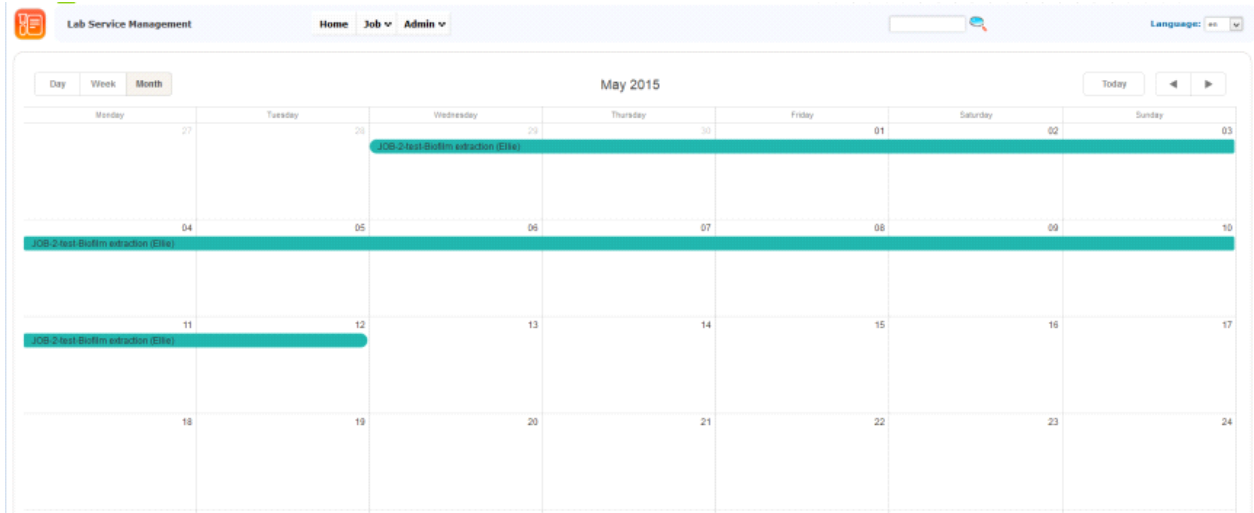
The pending samples list allows you to have in one list all the samples from which the test is started and in progress.

## 5.7 Canceled Samples List

The canceled samples list allows you to export the entire list of canceled samples.

## 5.8 Calendar

This menu displays a timeline calendar with all jobs requested by day, week or month.




A PDF can be generated by clicking on the button *PDF* on the calendar page in month, week or day view. When using this button in day view, a work list is generated.

		21 May 2015
		JOB-12-pierre1-prueba (Cristiná)
		JOB-23-maysm1-TestFile (Tech)
08:00		
09:00		
10:00		
11:00		
12:00		
13:00		

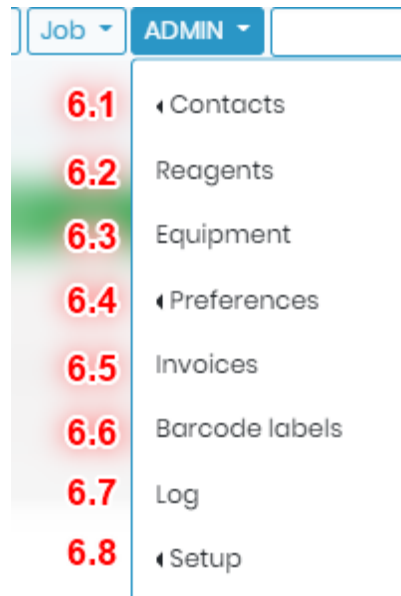
## 6. Admin menu - Configuration

---

When starting **LSM** usage, it is essential to start with customization steps. You need to create your assays catalog, customers, results parameters and more. These items interact with each other in multiple ways; therefore the order of steps for the initial setup is important. Some portions of the LSM cannot be customized without first setting up others. Helper text appears frequently throughout the LSM. Additionally the LSM requires records to exist within the Equipment and Reagent & Supplies modules of LabCollector.

Additionally, the LabCollector  [knowledge base](#) provides additional information on specific usage and setup scenarios for the LSM.

The general order for a first time setup is the creation/modification of:



- Users/requesters
- Reagents and equipment
- Protocols and sample types
- Test parameters
- Result and invoice templates
- Test/Assay

## 6.1. Contacts – Define users and customers/requesters

LSM can be utilized by test laboratories that receive samples either from other remote sites or from within the organization.

In both cases (remote or within) there can be several sites or departments that are responsible for collecting the samples and passing it on for testing.

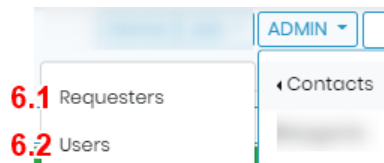
These several sites or departments can be considered as requester/customer.

LSM can be used by several users. These users can be further connected to the requesters as well.

Thus, in LSM new customers/requesters and users can be edited in this section. Navigate to **LSM → Admin → Contacts**.

### Warning

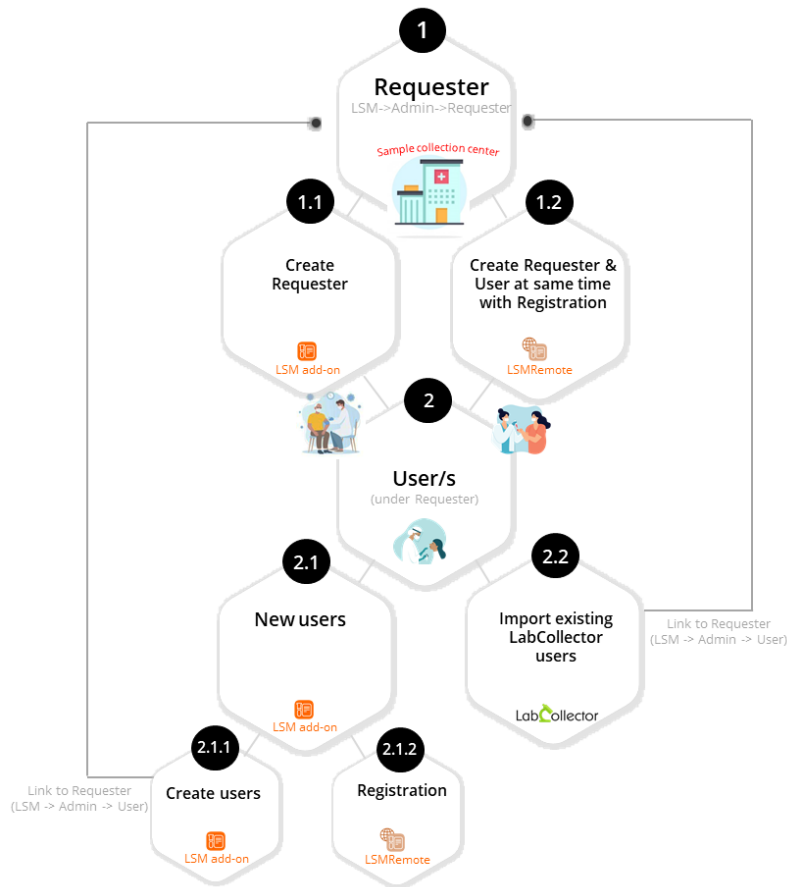
Only the administrator has full access to the Admin Menu. The other users (with lower permissions levels) have limited access to admin tools. They cannot edit user accounts.





### 6.1.1. Create customer/partner/requester list

The Requester and users can be created by various ways as shown below in the diagram.



**1. Requester:** It is the client or customer or provider at the sample collection center or who collects the sample.

**1.1:** You can create the requester using LSM add-on and by going to **LSM → Admin → Contacts → Requester**.

For more information on how to create requester using LSM refer to [section 6.1.1](#)

**1.2:** By going to LSMRemote you can click on registration option on the login page and create a requester and a user at the same time.

To have more information on registration please read the knowledgebase [KB: LSMRemote Registration](#).

#### **Warning**

The requesters generated from LSMRemote need to be validated in LSM. Please see the link to the above knowledgebase to see the process.


**2. Users for Requester** means a person/s who can login into LSMRemote with a login ID and password.

**2.1:** You can create new users using the LSM add-on.

**2.1.1:** You can create a new user from LSM add-on and by going to **LSM → Admin → Contacts → User**.

**2.1.2:** In a scenario where the lab member itself is a requester & user, then you can also do registration from LSMRemote. When you create a user here, you will need to valid them in LSM add-on. Once you have validated, the requester will be the first and the last name in **LSM → Admin → Contacts → Requester** and they will be also seen as a user in **LSM → Admin → Contacts → User**.

**2.2:** In scenarios where your requester is one of the users (lab members) are from LabCollector, then you can import these users from LabCollector into LSM add-on by going to **LSM → Admin → Contacts → User → Import**. You need to also assign them a user level permission for LSM.

To have more information on import of LabCollector members in LSM please read the knowledgebase  [KB: LSM import of LabCollector users](#).

To create a **Requester** using LSM add-on go to the **Admin → Contact → User** menu.

 **Note**

Customers may be labeled as Requester for some implementations of the LSM.

All functions related to customers and requesters are identical. Customer/partner/requester access is also available via the LSM remote.

To add a new customer/requester, click on the **Add** button. General information is followed by tabs used for billing and shipping purposes. Complete the fields and click on the **Save** button to save the customer profile. After the customer profile is active new tabs for the users, jobs and invoices will appear in the screen.

☰ Requester Details

< List
Add
Edit
Delete
Archive
⏪
⏩
Record

Of 1
⏴
⏵

1 Code: 
2 Name:

3 Company/Institute name:

4 Notes:

5 Category:

6 Preferred Report:

7 value-added tax:

8 Discount (%): 
11 Prefix:

9 On Portal: 
12 Registration ID:

10 API Token:

13 Account Manager:
 

- StaffpB
- StaffpC
- StaffpD
- StaffpE

- 14 GENERAL CONTACT
- 15 BILLING
- 16 PROJECTS
- 17 USERS
- 18 JOBS
- 19 INVOICES
- 20 CASE RECORD

General Contact Information

Address:

Country: 
 State: 
 City:

Zip: 
 Fax: 
 Phone:

Email:

Contact Person

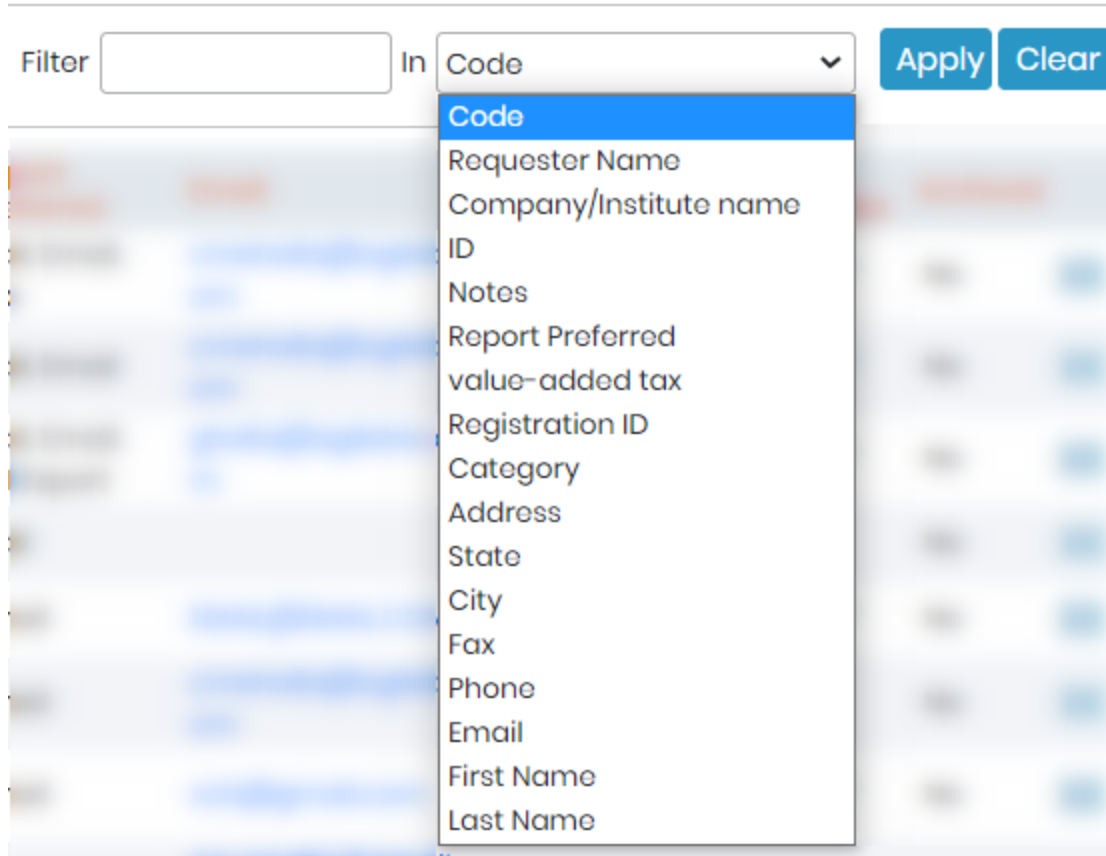
First Name: 
 Last Name:

All the above **points** are explained in our Knowledge Base 🎓 [KB:Labcollector interface](#)

**⚠ Note**

Note that options 17, 18 and 19 will only be activated after the requester/Customer is saved.

All lab service customers and/or partners can be seen in the **Requester List**. Results can be filtered. Type in the filter box and select the type of filter then click *apply*.



Results can be sorted by clicking the column title (alphabetic order). Each Requester is identified with a barcode ID for data traceability.

To see details and modify profiles, double-click on the record of interest, and click on the **Edit** button. Edits to a Requester are only confirmed by clicking on **Save** after making the changes.

☰ Requester List

Add Delete Print Email Categories

Filter

<input type="checkbox"/>	ID	▲ Code	Company/Institute name	Name	Category	Report Preferred
<input type="checkbox"/>	30	01	AgileBio	LabCollector Lab		Mail, Email, Fax
<input type="checkbox"/>	78	2	Agilebio	TEST REQUESTER t		Mail, Email



☰ Requester Details

< List Add **Edit** Delete Archive

Code:

Name:

Company/Institute name:

Notes:

Once validated, the new profile is added to the customer list and additional tabs become available. The new tabs are USERS, JOBS, and INVOICES (as seen in above image):

- The USERS (17) tab displays information regarding user accounts. These are created in the next step (login and password).
- The JOBS (18) tab displays information on services ordered by this customer.
- The INVOICES (19) tab displays invoices created from this customer's orders.

### 6.1.1.1 Registration from the LSMRemote

From the LSM remote interface, your customers can also ask for an account to register in LSM. To activate this option, in the file config.ini of the LSMremote directory, *allow\_register* parameter has to be activate.



#### Provider

Sign in


Register

[Forgot your password?](#)

Once the new user click on register, a form opens. All the fields are mandatory.

Then, an admin has to approve the request in the LSM. On the home page, a new tab is visible showing the numbers of user requests.

Double click on one user request to be able to validate or discard the request. Once validated, the user will receive an email.

Please see more details in our Knowledge Base  [KB:How to register using LSMRemote and accept users in LSM.](#)

 Note

*Email settings need to be done in LabCollector.*

Please see more details in our Knowledge Base  [KB:General setup in LabCollector.](#)

### 6.1.2. Create new users

A user account (login and password) is required to have access to the **LSM** platform. Access to the LSM and the LSMremote can be distinct from LabCollector access. In addition, LabCollector user logins may be directly linked to a LSM user login.



A LabCollector user can be added with the same account information as a LSM user. So in short, you can create users:

#### A) New Users

Select the **Users** tab in the **Admin → Contacts → Users** menu.

To create a new user account, click on the **Add** button. This is best for users that do not have an account in LabCollector to connect with their LSM access.

This will bring up the form to create a new user.

☰ User Details

Save Cancel

First Name:\*  Last Name:   
Type:\* Customer  Requester:\*   
LoginName:\*  Email:   
Password:\*  Confirm:\*



Select Requester — □ ×

Select [pl] |

**B) Delete:**

This is to delete a user.

☰ User List 2

Add Delete Print Email Teams Import

LabCollector  LSM

<input checked="" type="checkbox"/>	ID	▲ Login Name	First Name	Last Name	Requester
<span>1</span> <input checked="" type="checkbox"/>	168				

**C) Print**

This option helps to print the list of users.

**D) Email**





Select the type of team, the options are staff, admin, finance and customer. Type a name for the team. Select users for the team. Save to confirm changes to the team. In a similar manner, an existing team may be selected from the list and may be altered. The buttons on the menu have these functions:

**Save** to save any changes to a team.

**Delete** will delete a team – there is a warning asking if you are sure you want to delete the team.

**Reset** will clear the team name and list of users on the team. The effect is not confirmed until clicking the save button.

## F) Import Users from LabCollector

You can also import existing users from LabCollector.

Please see more details in our Knowledge Base  KB: [LabCollector user creation](#).

To import users from LabCollector inside LSM, go to **Admin** → **Contacts** → **Users** → **Import**

Please see details in our Knowledge Base  KB: [Import Users in LSM from LabCollector](#).

You will see several columns when you click on import:

The columns consist of:

- **Login:** LabCollector username.
- **Name:** Real name
- **User level permissions (LabCollector):** User level in LabCollector
- **User type (LSM):** User type in the LSM. A blank entry indicates the LabCollector user does not have a connected account for the LSM.
- **Requester (LSM):** Only necessary for Customer user type. A blank entry indicates the LabCollector user does not have a connected requester for the LSM.

Import LabCollector users

Select LSM user type in fourth column for users you are importing

Login	Name	User level permissions (LC)	User type (LSM)	Requester (LSM)
<input type="text" value="admin_fullaccess"/>	<input type="text" value="admin_fullaccess"/>	<input type="text" value="Administrator"/>	<input type="text" value="Admin"/>	<input type="text" value=""/>

A permission level (**Type**) must be assigned to all users:

- **Admin:** Full access to all LSM applications and features.
- **Staff:** Access to everything *except* the user account editor.
- **Finance:** Access to the invoice interface, cost management and customer list. Can also view the job management list.
- **Customer:** Access limited to viewing and requested their own jobs and results. Can only place jobs requests. Job requests may be done via the LSMRemote or the LSM. Access is limited to their own jobs and results.

**Note**

Customers are created by the super-admin/admin in LSM and using the LSMRemote, the customer can request an account.

- **Validator:** Access to ONLY validate completed jobs & see finished jobs (the ones that are validated).

The upper row may be clicked to toggle between unsorted, and sorting in ascending or descending order (indicated by the absence or presence of an arrow). Login, User level permissions (LC), and User type (LSM) have drop down menus that allow filtering. The name column offers a text entry filter. These filters can be combined.

After selecting a LabCollector user to import, click in the column corresponding to the User Type (LSM) to select from a drop down menu. The change takes effect immediately upon

selecting. This choice can be changed by an admin.

☰ User List Total 63 Records.

Page Size 25   Page 1 Of 3

LabCollector  LSM Filter admin 1 In Last Name   2 3

<input type="checkbox"/>	ID	Login Name	First Name	Last Name	Requester	Type	Teams	Source	Active	Locked
<input type="checkbox"/>	159					Admin		LabCollector	✓	<input type="checkbox"/>
<input type="checkbox"/>	112					Admin	Validator TI; admin TI	LSM	✓	<input type="checkbox"/>
<input type="checkbox"/>	95					Admin		LabCollector	✗	<input type="checkbox"/>
<input type="checkbox"/>	116					Validator	Group 1	LabCollector	✓	<input type="checkbox"/>
<input type="checkbox"/>	114					Admin	Validator TI; admin TI	LabCollector	✓	<input type="checkbox"/>
<input type="checkbox"/>	119					Admin	Group 1	LabCollector	✓	<input type="checkbox"/>
<input type="checkbox"/>	135					Admin	Group 2	LabCollector	✓	<input type="checkbox"/>
<input type="checkbox"/>	140					Admin		LabCollector	✓	<input type="checkbox"/>
<input type="checkbox"/>	125					Admin	Group 3	LabCollector	✓	<input type="checkbox"/>
<input type="checkbox"/>	113					Customer		LSM	✓	<input type="checkbox"/>
<input type="checkbox"/>	148					Customer		LSM	✓	<input type="checkbox"/>

- The user list shows all lab users administrators, staff, customers and financial representatives.
- Specific lists of users can be sorted by clicking the column title (alphabetic order).
- To see details and modify profiles, double-click the record of interest, and click on the **Edit** button.

- 1. List also shows which teams the user belongs to.
- 2. It also shows which customer are active (meaning are accessible on LSMRemote)
- 3. Once you have created a customer, you will see 2 new options
  - **Locked/unlocked account**

This option is useful to manage customers' access. Instead of editing a new account each time the same customer submits a job, the administrator can use this option. You can even lock the customer from logging in LSMRemote.

- **Active/inactive profile**

The administrators can also decide to identify a profile as inactive if the user is not (or will not be) in the lab for some time. This option is useful to manage laboratory staff members.

 Note

Only active & unlocked users may login to the LSM..

 User Details

Save

Cancel

First Name:\*

Last Name:

Type:\*

Requester:\*

LoginName:\*

Email:

 Locked:\*  Locked  UnLocked

 Active:\*  Enabled  Disabled

 Warning

Once a user has been created within the LSM the user cannot be removed. The account may be deactivated to block access.

## 6.2. Manage Reagents and Supplies

Navigate to this feature by selecting the **Reagents** tab in the **Admin** menu. This feature uses information from the pre-built **LabCollector** module Reagents & Supplies.

Unlike other parameters, when you click on the **Add** button, it opens **LabCollector LIMS**. Each new reagent must be created in the **LabCollector** Reagents & Supplies module before it can be accessed by the LSM. Once the new entry is saved in the **LabCollector** database, return to the **LSM** page and refresh your web browser (if the newly added entry does not appear). The new reagent will be displayed in the list. Double-clicking on a reagent record in the list opens the detailed LabCollector information page.

For reagent and supplies that are used in the LSM it is recommended that the fields displayed are set to be mandatory within LabCollector (in LabCollector) **Admin** → **Reagents & Supplies**.

Reagents & Supplies List

Total 501 Records.

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Filter  In Name

Name	Category	Seller	Quantity
Distilled water	Solvents		810.00
DMSO	Consumable		3.00
DNase I	Consumable		1.00

### Note

To add new reagents, you need a LabCollector user account (login and password). Refer to your LabCollector administrator if needed. The quantity listed only takes items with an amount defined in the lots/batches.

Please see more details in our Knowledge Base  [KB:Creating reagents in LSM](#)

### 6.3. Manage equipment

This section allows appropriate equipment selection to perform assays. Similar to the LSM management of Reagents & Supplies, equipment management is linked to **LabCollector** LIMS. This feature uses information from the pre-built **LabCollector** module. It is recommended that the fields preset in the list for the LSM are set to mandatory (in LabCollector **Admin → Default Fields → Reagents & Supplies.**).

The equipment list has a sorting and filtering function to help with locating equipment records. Type in the filter and select the field to filter, then click apply. To sort a list, simply click the column header and an arrow will appear to indicate sorting in ascending or descending order. Sorting and filtering may be combined.

Select the **Equipment** tab in the **Admin** menu, click on the **Add** button and edit the new entry in the Equipment Module. The new equipment will be displayed in the list.

Double-clicking on an equipment record in the list opens the detailed LabCollector record.

☰ Equipment List Total 25 Records.

Add Print Page Size 25 Page 1 Of 1

Filter  In Name Apply Clear

Name	Person in Charge	Serial No.		Location
Microplate Reader		8946598		IP-254_65
Microscope EpiFluo BX51		56987594GHT265		Room 5.3B
Pipetman 200 µL mix PCR		234357	Gilson	54-RC-02
PSM Cellules		5463216723	Thermo	03-RB-14

When you create a test you can add equipment categories.

Please see more details in our Knowledge Base  [KB:Creating equipment in LSM](#)

 **Note**

Equipment categories can be added ONLY in reagents and supplies module. These categories are then visible in the test when you add them.

**Test Details**

Save Cancel

Name\* Glicémie

Small Name\*

Code GLI 2

Billing Code

Category Gh02; Gh166; Gh33; Gh12; cat2

Sample Type Blood

Range Range

Description

Result Type  Results  Sample  File

Default Operator\* StaffPFullAccess\_1 (StaffPFullAccess\_1)

Default Hours\* 1

Results template\*

Processing template -----Select-----

Accreditation  Yes  No

INPUT PARAMETER REAGENTS & SUPPLIES **PROTOCOL** PROCESSING PARAMETER RESULT PARAMETER

Begin typing to search for a protocol mi

Protocol		
Microscope	<input type="checkbox"/>	
Centrifuge	<input type="checkbox"/>	
PCR Machines	<input type="checkbox"/>	

When you execute the test, you will see a red pop-up if some equipment are in maintenance and you can add an equipment under the equipment category.

Operator\* Group 1 Range\* Women

Some equipment are in maintenance or out of service

Input Parameter

Parameter	Value	Unit
T-Checkbox*	<input type="checkbox"/>	
T-ValueList*		

Reagents & Supplies

Reagent	Quantity	Lots
record without active lot	2	⚠ This reagent does not have active lots
Electrophorese	1	Select

Protocol & Equipment

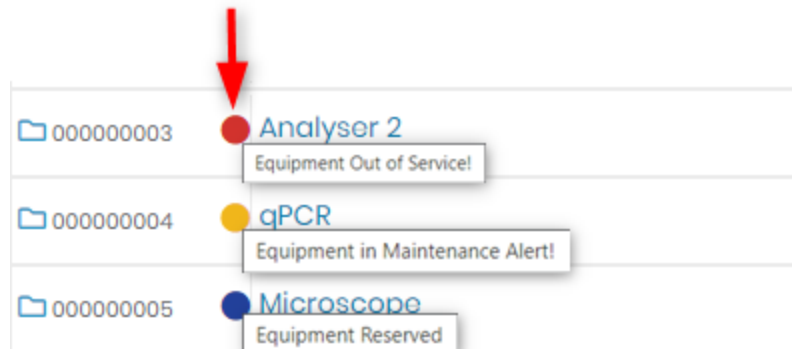
Protocol	Equipment Category	Schedules	File
Excel-Protocol	Centrifuge		Download
PDF-Protocol	Hematology		Download



**Note**

To add new equipment, you need a LabCollector user account with an appropriate permission level (login and password). Refer to your LabCollector administrator.

Color indicators give information on equipment status:

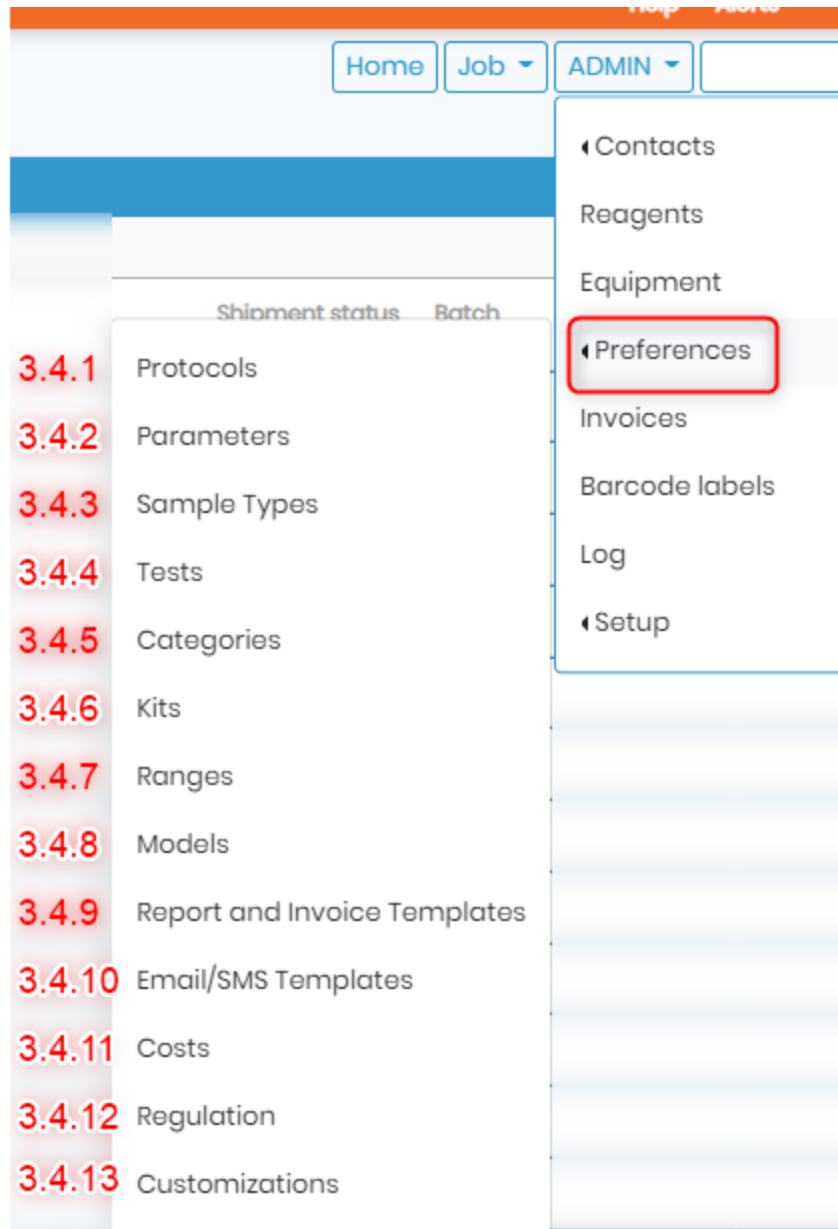
**Note**

The equipment status is based on the status from the **LabCollector** Equipment module. **Only equipment with no color indicators can be selected when running a job.**

## 6.4. Preferences - Lab services definition and configuration

To customize the **LSM** according to your lab activities, go to the **Admin** Menu and choose the **Preferences** tab. This section is used to configure the laboratory service activities. On the initial setup the order of selecting these is important as each part of preferences relate to others.

Please see more details in our Knowledge Base 🎓 [KB:How to start with LSM](#)



### 6.4.1 Create protocols list

To perform analyses, you need to pool all protocols needed. Within the LSM navigate to **Admin → Preferences → Protocols**. This section allows uploading protocols that will be used for tests/assays. Click on the **Add** button to add new protocols. Each protocol is associated to a unique ID allowing barcode label identification and data traceability. The protocols will be available to the person performing jobs connected to the protocol. A name for the protocol is required. A description is optional. The protocol can then be added by browsing for a file to upload.

Files may be downloaded from the protocol list or when doing a job.

#### ☰ Protocol Details

**Save** **Cancel**

**Name:\***

**Description:**

**File upload:**

View of protocol list.

#### ☰ Protocol List

**Add** **Delete** **Print** Total 6 Records.

Page Size    Page  Of

Filter  In

<input type="checkbox"/>	Name	Description	File
<input type="checkbox"/>	Blood Test protocol	Protocol for blood test	<a href="#">Download</a>
<input type="checkbox"/>	Identification d'une souches par séquençage du gène rrs	gene sequencing	<a href="#">Download</a>
<input type="checkbox"/>	Phytoassay	Plant dna extraction and analysis	<a href="#">Download</a>

Protocol name and description can also be added to the final report. For more details, go to

[Section 3.4.8](#)

Protocol & Equipment			
Protocol	Equipment Category	Equipment Name	File
RT-PCR	PCR machine	<input type="text" value="PCR Machine"/>	

### 6.4.2. Create parameters

The parameter list pools all parameters that can be used during lab service activities. Within the LSM navigate to **Admin → Preferences → Parameters**. Click on the **Add** button to create all needed variables (temperatures, volumes, concentrations, measurements...) that are relevant to perform assays/tests in the lab and define results.

Parameters can be INPUT or OUTPUT/RESULT values depending on whether they are needed when starting a job or to record results of an assay or test.

**Note**  
As of version 3.2063 it is possible to add test parameters while editing a test.

You can create parameters at Job, sample or test level. LSM gives possibilities to create different types of parameters.

#### ☰ Parameter Details

**Save** **Cancel**

The screenshot shows the 'Parameter Details' form with the following fields and options:

- Label:** \* (text input)
- Code:** (text input)
- Level:** \* (dropdown menu with options: Job, Sample, Test)
- Data Type:** \* (dropdown menu with options: Checkbox, Date, Datetime, Time, Valuelist, Multiple Choice, Numeric, String, LongText, Image, File, AVG, SD, Calculated)
- Helper text:** (text input)
- Unit:** type and press enter (text input)
- Phrase:** type and press enter (text input)
- On Report:**
- On Client Form:**
- On Lab Form:**
- Backend:**
- Mandatory:**
- Search Filter:**
- Report Color:** (color picker)

- **Label:** This the name of the parameter.

- **Code:** You can give a code to the parameter. Sometimes, there are certain codes that are defined for certain test and parameters related to them by the governing bodies. you can add such codes here. For example, the LOINC codes.
- **Level:** You can define the level where you want to create the parameter for. Refer to [section 3.4.2.1](#)
- **Data Type:** Its where you can define what type of parameter you would like to create. Refer to [section 3.4.2.2](#)
- **Helper Text:** This allows you to give a little more information about the parameter.

Label:\*

Code:

Level:\*

Data Type:\*

Helper text:



Name [?]

- **Unit:** You can define Unit for your parameter.

Label:\*

Code:

Level:\*

Data Type:\*  Decimals

Helper text:


Unit:

 Note

Dont forget to press ENTER key, after you type the values for Unit, Phrase and options in Value list or multiple checkbox.

- **Phrase:** For each parameter, you can define an associated phrase (or phrases) that will be used in result reports. Phrases are added in the same manner as values for a value list. Type in the box and click enter. This confirms the phrase indicated by a bubble around the text. Clicking the 'x' in the bubble will remove the phrase. A phrase has the option to be linked to a min-max range *if* the parameter has the data type numeric *and* is an assay level output. Note that multiple ranges are possible. For more information on ranges refer to the chapters describing tests/assays.

Phrase:

- **On Report:** If you don't want to have this parameter of the final test report, untick the box "On Report".
- **On Client Form:** If you want to add this parameter to the remote portal of LSM, then you need to check this box. Please read the knowledgebase  KB: [New fields in LSMRemote.](#)
- **On Lab Form:** If you dont want to add this parameter under the job level, and keep it hidden, you can uncheck the checkbox. If you want it to be visible under Job, then you can check the box.

**Label:\***

**Code:**

**Level:\***

**Data Type:\***

**Helper text:**

**Unit:**

**Phrase:**

**On Report:**

**On Client Form:**

**On Lab Form:**



Job additional data	
Name [?]	<input type="text"/>
Value	<input type="text"/>
<b>Cholestrol</b>	<input type="text"/>

- Backend:** If you check this box, this means that the parameter will be not be visible in LSM but ONMY visible/editable by API for example for I-Collector integration , etc.
- Mandatory:** If you want your option to be filled for the job, sample, test to be created, then you can make the parameter mandatory. Without filling the value for this parameter, the user cannot move forward or save the job.
- Search filter:** Currently, in LSM you can use parameters as search filters to filters jobs. If you want to add your parameter as a search filter you can check this box.

 Note

For now only parameter of type "Value list", "Multiple Choice" or "String" can be checked as Search Filter.

- **Report Color:** You can only add color for the values, to test level parameters.

 Note

For :

**Valuelist:** you can choose a color per value (for example color id the result is detected, or not detected, etc)

**Numeric:** you can choose 2 colors, one for values in range and other for out of range



### 6.4.2.1. Levels of parameters

You can define where the parameters will be used (Level/Step):

#### 1. JOB Level

Will be a custom field on the Job definition form. These parameters apply to all samples and assays/tests for a job. Defined when submitting jobs via either the LSM or the LSMRemote.

An example job submission form within the LSM showing the location of Job Level and Sample Level parameters:

**\*Note:** The LSMremote is configured in the below image to have one sample per job. However, you can also configure it to have multiple samples per job.

The screenshot displays the 'LSM' Job definition form. At the top, there are 'Save' and 'Cancel' buttons. The form is divided into several sections:

- Job Information:** Includes fields for Job Number (with a help icon), Job Date (2021-06-23), Requester (dropdown), Priority level (Normal), Expected Date, and Purchase Order.
- Case Information:** Includes Case Record (with a plus icon), Case Gender (dropdown), and Case Date of Birth.
- Order Type:** Radio buttons for Quote, Request (selected), and Job.
- Samples received?:** Radio buttons for No (selected) and Yes.

Below the main form is a section for 'Job additional data' with the title 'Job Level'. It contains a 'document check' field with a dashed border and an upload icon.

The bottom section is titled 'Samples' and features a table with a toolbar. The toolbar includes buttons for 'Add row', 'Select all', 'Remove selected', 'Import CSV', 'Export CSV', 'Memorized records', 'Rename samples', 'Chain of Custody (COC)', and 'Assign tests'. The table has columns for 'Sample\*', 'Type\*', 'volume', 'documents sp', 'lot', 'Comment', and 'Tests\*'. At the bottom of the 'Samples' section, there are 'Save' and 'Cancel' buttons.

Order

Import CSV

LSMRemote

---

**Job data**    **Job Level**

---

**Case Record\***

Nothing selected
▼

⊕ case record

**Requester \***

[Collection site 1] Testing site 1
▼

Match Case Record\*

**Sample data**

---

**Barcode\***

↻

**Type\***

Nasal swab
▼

**Collection time & date**

📅 Today

**Testing Prerequisite**

None selected
▼

**Comment**

## 2. SAMPLE Level

Will be a custom field for the sample form. These parameters apply to particular samples within each job. Defined when submitting jobs via either the LSM or the LSMRemote.

An example job submission form within the LSMremote showing the location of Job Level and Sample Level parameters:

**\*Note:** *The LSMremote is configured in the below image to have one sample per job. However, you can also configure it to have multiple samples per job.*

LSM

**Save** **Cancel**

Job Number <sup>!</sup> \_\_\_\_\_

Job Date 2021-06-23

Requester \* \_\_\_\_\_

Priority level \* Normal

Expected Date \_\_\_\_\_

Purchase Order \_\_\_\_\_

Order  Quote  Request  Job

Samples received?  No  Yes

Case Record \* \_\_\_\_\_

Case Gender \_\_\_\_\_

Case Date of Birth \_\_\_\_\_

---

Job additional data

document check

---

Samples **Sample Level**

Add row - Select all - Remove selected - Import CSV Export CSV - Memorized records Rename samples Chain of Custody (COC) Assign tests -

Sample*	Type*	documents sp	lot	Comment	Tests*
	volume	documents sp	lot		

**Save** **Cancel**

Order

LSMRemote

**Job data**

---

Case Record\*

case record

Requester \*

Match Case Record\*

**Sample data** Sample Level

---

Barcode\*

Type\*

Collection time & date   
 Today

Testing Prerequisite

Comment

### 3. TEST Level

Will be used as an INPUT or RESULT value field. These parameters are filled in only via the LSM by staff and/or admin level LSM users. Further control is done by assay in Assay Details by going to [Admin](#) → [Preferences](#) → [Tests](#). The Assay/Test takes the parameters that are already defined (details to create

parameters are described above).

☰ Test Details

Save Cancel

---

Name\*

Small Name\*

Code

Billing Code

Category

Sample Type

Range

Description

Result Type  Results  Sample  File

Default Operator\*

Default Hours\*

Results template\*

Processing template

Accreditation  Yes  No

Test Level

INPUT PARAMETER  
  REAGENTS & SUPPLIES  
  PROTOCOL  
  PROCESSING PARAMETER  
  RESULT PARAMETER

The parameters can be set as an input, processing or a result.

- **Input parameters** are the ones that can be added before starting the test. For example, DNA purity check before a PCR, etc. LSM has an option to set a unit, default value (leave blank to have the value empty initially) or to make the parameter filling during test mandatory (denoted by a small red asterisk when you open the job and execute the test). All variables required to design the test and to prepare samples for analysis can be added from this tab. Parameters must be defined with the assignment as Test/Assay level to be available for selection.

INPUT PARAMETER  
  REAGENTS & SUPPLIES  
  PROTOCOL  
  PROCESSING PARAMETER  
  RESULT PARAMETER

---

ID	Parameter	Default Value	Unit	Mandatory
30	PH	4	-log	<input checked="" type="checkbox"/>

- **Processing parameters** are the ones that are done during the test execution. it can be for

internal purposes of lab, to check if the test values were correct during the test execution. These parameters can have a default value, unit, phrase, low, high values and option to make the parameter mandatory.

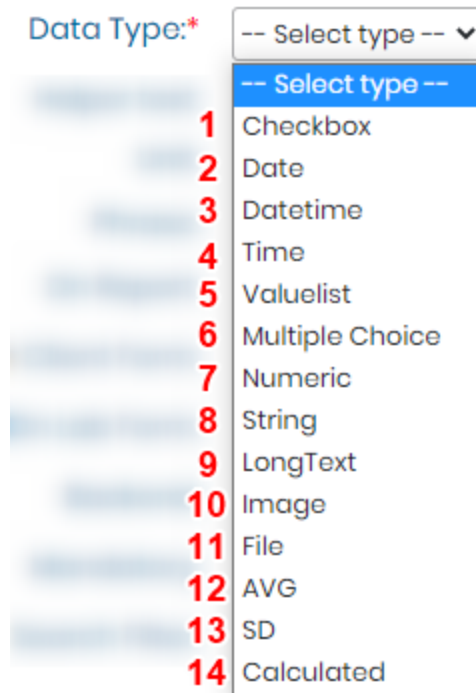
INPUT PARAMETER	REAGENTS & SUPPLIES	PROTOCOL	PROCESSING PARAMETER	RESULT PARAMETER				
ID	Parameter	Default Value	Unit	Phrase	Low	High	Mandatory	<input type="checkbox"/>
76	Control Neg	1	µl	Normal	Below Normal	Above Normal	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- **Result parameters** can have a default value, unit, Phrase (defined by the parameter definition), and phrase selection for values inside, above or below a range of results (the phrases available are set by the parameter definition).

INPUT PARAMETER	REAGENTS & SUPPLIES	PROTOCOL	PROCESSING PARAMETER	RESULT PARAMETER				
D	Parameter	Default Value	Unit	Phrase	Low	High	Mandatory	<input type="checkbox"/>
77	Glucose	140	mg/dL	Normal	Low	High	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 6.4.2.2. Data field types

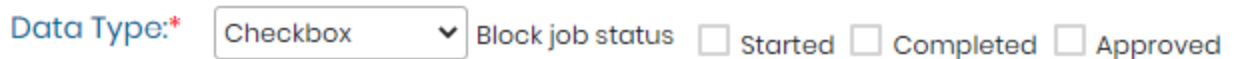
The lab can choose between several types of variables (Data Types) to create parameters:



1. **Checkbox:** Binary answers Yes/No, True/False as a checkbox.

**NEW!** Now you can choose if the checkbox option needs to halt a job at a specific stage like job started, completed & approved.

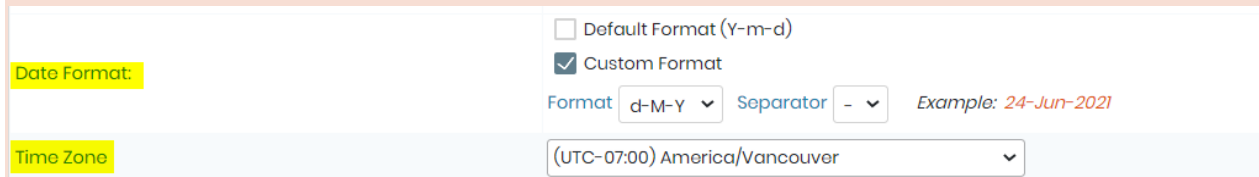
If the box is not checked the job will not be able to proceed to the next status.



2. **Date:** Reported as yyyy-mm-dd, entered using a calendar.

### Note

The date format when you edit the job will be set by the LSM system to look like yyyy-mm-dd, however, if you want the date to appear in specific format or time zone on your test result report (For more details, go to [Section 3.4.8](#)), then you need to define the custom format for your LabCollector system by going to **LabCollector Admin → Setup → General settings, logo, modules names, etc. → Date Format & Time Zone**



**Date Format:**

Default Format (Y-m-d)

Custom Format

Format  Separator  Example: 24-Jun-2021

**Time Zone:**

3. **Datetime:** Reported as yyyy-mm-dd hh : mm : ss, entered using a calendar
4. **Time:** Reported as hh : mm : ss
5. **Value list:** Provide values for a drop down menu for a single choice. For the value list at test level, you can add the colors for each value. For example, if the result is detected you can add a red colour to the "detected" text that will appear on your result report. See an example image below.

Parameter Details

Save Cancel

Label:\* covid19

Code:

Level:\* Test

Data Type:\* Valuelist   type and press enter

Helper text:

Unit: type and press enter

Phrase: type

On Report:

On Client Form:

On Lab Form:

Backend:

Mandatory:

Search Filter:

Report Color: Detected  Not Detected

Result Report

LabCollector by AGILEBIO

Voir: Eboué, Cretiel 94000 Ile-De-France  
www.agilebio.com | Phone: 1-844-952-2728

**SARS-CoV-2/COVID-19 Test Report**

Patient ID:  Sample ID:

Patient Name:  Specimen:

Ordering Physician: Dr. Sam Radford Collection Date:

DOB:  Received Date: 28-Jun-2021 06:18:53

Gender:  xxxxxxxx: nnnnnn

**Test Description**

Detection of coronavirus variant by RT PCR method

Test Result	Interpretation
Detected	<p>If <b>Detected</b>: indicative of active infection but do not rule out bacterial infection or other viral infections.</p> <p>If <b>Not Detected</b>: does not preclude the COVID-19 infection and should not be used as the sole basis for treatment or other patient management decisions. Negative results must be combined with clinical observations, patient history, and epidemiological information.</p> <p>The <b>inconclusive</b> results should have a second test obtained as soon as possible, if patient had COVID-19 related symptoms. "inconclusive" results should be treated as presumptive positive COVID cases with a low viral load present.</p>

**SARS-CoV-2/COVID-19 Test Report**

Patient ID:  Sample ID:

Patient Name:  Specimen:

Ordering Physician: Dr. Sam Radford Collection Date:

DOB:  Received Date: 28-Jun-2021 06:18:53

Gender:  xxxxxxxx: nnnnnn

**Test Description**

Detection of coronavirus variant by RT PCR method

Test Result	Interpretation
Not-detected	<p>If <b>Detected</b>: indicative of active infection but do not rule out bacterial infection or other viral infections.</p> <p>If <b>Not Detected</b>: does not preclude the COVID-19 infection and should not be used as the sole basis for treatment or other patient management decisions. Negative results must be combined with clinical observations, patient history, and epidemiological information.</p> <p>The <b>inconclusive</b> results should have a second test obtained as soon as possible, if patient had COVID-19 related symptoms. "inconclusive" results should be treated as presumptive positive COVID cases with a low viral load present.</p>

6. **Multiple choice:** You can several values that can be selected together in parameter.



☰ Parameter Details

Save Cancel

---

Label:\*

Code:

Level:\*

Data Type:\* 
Option 1 x Option 2 x Option 3 x Option 4 x type and press ente

7. **Numeric:** Numeric user typed input. A range may be assigned to Numeric parameters when defining assay details. You can even define the decimals values.
8. **String:** Alphanumeric ONLY user typed input, no special characters are allowed.
9. **Longtext:** Field text (size = 1000 characters). At job and sample level, this data type can allow up to 1000 alphanumeric characters. However, at the test type, you can have possibility to edit it with html editor and even add templates for your parameters, for example like below.

Please see more details in our Knowledge Base 🎓 KB: [How to use html editor.](#)

★ Tips / Hints

You can copy paste the table or templates from word file as well.

INPUT PARAMETER	REAGENTS & SUPPLIES	PROTOCOL & EQUIPMENT	PROCESSING PARAMETER	RESULT PARAMETER
ID	Parameter	Default Value	Unit	
5	res2	v1	I	
12	File Test			
166	longtext	[LongText]		

Edit parameter

Parameter

Default Value

Unit

Phrase

Low

View parameter

Parameter Liste des taxons

Liste des taxons de Poissons détectés, nombre de répliquats positifs et nombre de séquences ADN associés à chaque ta l'échantillon).

Nom scientifique	Base de référence	Site XXX	
		Nombre de répliquats positifs (/12)	Nombre de séquences ADN
<i>Abramis brama</i>	GEN		
<i>Alburnoides bipunctatus</i>	GEN		
<i>Alburnus alburnus</i>	GEN		
<i>Anguilla anguilla</i>	GEN		
<i>Aspius aspius</i>	GEN		
<i>Barbatula barbatula</i>	GEN		

10. **Image:** field to upload images.
11. **File:** field to upload files.
12. **AVG:** This field allows you to get the average/mean value from a list of parameters.  
There is also the option to show the standard deviation (IncludeSD).
13. **SD:** Allows you to have standard Deviation of the values you use in result parameters.
14. **Calculated:** This field allows you to add formulas that can be calculated. The parameters

that you create at the test level ONLY will be used to calculate the formula.

**Note**

In the calculated formula you can only use +, -, \*, /, ^ functions only.

$$\frac{1}{BW} \times R(\text{mg/Kg}) \times UW \times 0.001 \times VF + R(\text{mg/Kg}) \times (LP-UW) \times 0.001$$

**BW:** Body Weight

**R:** Results from the test (mg & kg)

**UW:** Unit Weight

**VF:** Variability Factor

**LP:** Large portion

Parameter List

ID	Label	Level	Data Type
17	Unit Weight	Test	Numeric
18	Body Weight	Test	Numeric
7	Results (mg/Kg)	Test	Numeric
12	Variability Factor	Test	Numeric
17	Unit Weight	Test	Numeric
16	Large Portion	Test	Numeric

Parameter Details

Save Cancel

Label: Acute Dietary Intake 2a (mg/Kg)

Code:

Level: Test

Data Type: Calculated Decimals: 5

Body Weight Results (mg/Kg) Unit Weight Variability Factor Large Portion

1 / Body Weight \* ( Results (mg/Kg) \* Unit Weight \* 0.001 \* Variability Factor + Results (mg/Kg) \* ( Large Portion - Unit Weight ) \* 0.001 )

**NEW!** Now you can add color to the calculated values above and below of a specific range at the test level. When you define the colors, they will be visible in the result report. See Chapter (refer to [section 3.4.9](#))

Parameter Details

- < List
- Add
- Edit
- Delete
- Lock editing

Label: Concentration

Code:

Level: Test

Data Type: Calculated Decimals: 1

Concentration R-Brut

Helper text:

Unit: mg/mL

Phrase: Pass|OOS

On Report:

On Client Form:

On Lab Form:

Backend:

Mandatory:

Search Filter:

Report Color: In range    
 Out of range  

Used in tests: Concentration

## Result Report

Address: 1200   Road, Building M54

Website: <https://>   Phone: 430-340-1249

### RAPPORT D'ANALYSE

Nom du client:	Sponsor 1		
Company:	Sponsor Vaccin 1		
Address:	1 Main Street		
Email:	sponsor@gmail.com		
Produit:	Produit X		

**Results**

**#25 - 1624876391583**

Concentration	<b>4.7</b> mg/mL	0.5 – 3.0 mg/mL	<b>OOS</b>
pH	6.5	6.4 – 6.7	<b>Pass</b>

### 6.4.2.3. Locking/Unlocking Parameters

LSM now allows you to Lock or Unlock the parameters editing. This allows the labs to be more stringent with editing, parameters in LSM so as to not hamper any results. You have unlock the editing, and provide the reason for doing so. This reason will be included in the Audit trail log of LSM along with the user details who changed the parameters. Go to [LSM](#) →

[Admin](#) → [Log](#).

Lab Service Manager Add-on/Lab Service Manager/Log

Home Job ADMIN

Audit Logs List

Export Archive Print

Total 15987 Records.

Page Size 25 Page 1 Of 640

Date Filter In All Apply Clear

Date	Action	Comment	Username	IP
24-06-2021 13:42:37	Test Sérologie WNV updated	ID 1   Name Sérologie WNV   SmallName S_WNV   Code   BillingCode   Description   CategoryID   SampleTypeID   ResultType R   DefaultOperatorID 2   OperatorType U   TemplateID 15   ProcessTemplateID   Accreditation No	NAL	78.198.74.63
24-06-2021 13:42:23	Unlocked Editing test 1	test	NAL	78.198.74.63
24-06-2021 11:21:16	Test RT-qPCR COVID 19 updated	ID 7   Name RT-qPCR COVID 19   SmallName   Code 002   BillingCode   Description   CategoryID 1   SampleTypeID 10_6   ResultType R   DefaultOperatorID 1   OperatorType G   TemplateID 15   ProcessTemplateID 20	NAL	78.198.74.63

Locking/unlocking editing of parameters:

Parameter Details

< List Add Edit Delete Lock editing

Label: Glucose

Code:

Level: Test

Data Type: Numeric Decimals

Once you're happy with the configuration of your parameter there is the option to lock it and prevent further editing by clicking on the [Lock editing](#) button.

To edit a parameter you need to click on [Unlock editing](#) and provide a reason for changing the parameter.

☰ Parameter Details

< List   Add    Unlock editing

Reason for unlock

Confirm

#### 6.4.2.4. Ordering/rearranging Parameters

**For job and sample levels**, you can order the parameters by simply dragging and dropping them **from the top to the bottom** of the list. Go to **LSM → Admin → Parameters → Order**

Just click on **Order** button on parameter list. No need to save.

☰ Parameter List



Order parameters
— □ ×

Job custom fields	Order	Sample fields	Order
gh-Calculate	1	kit Barcode	1
gh-file	2	Type	2
gh-Numeric	3	Comment	3
gh-multipleChoice	4	sample numeric	4
BMI	5	checkbox testt	5
time	6	Text	6
Test Result	7	Text 2	7
Value	8	drag and drop parameters to change order	
Add Text	9		
Name	10		
Cholestrol	11		

drag and drop parameters to change order

### 6.4.3. Manage sample types

The lab has to manage sample types according to the lab. Within the LSM, navigate to **Admin → Preferences → Sample types**. Sample type is required to be included for all samples in all jobs. At least, one definition of sample type must be created.

To add a new sample type click **Add** and complete the form. This section allows sample types definition (blood, DNA, protein extraction, tissue...). The name is mandatory and a description is optional.

To delete a sample type, click the check box next to the sample type name and then click delete.

Note that deleting a sample type that is currently being used is prohibited. The sample type list may be printed.

There are sorting and filtering options to help with managing long lists of sample types. Click a column header to sort in ascending or descending order (indicated by an arrow). There is also a filter that may be applied to either the name or description, click apply for the filter to take effect. The number of records per page may also be adjusted.

Sample Type List

Total 15 Records.

Page Size 25 Page 1 Of 1

Sort Filter In Name Apply Clear

ID	Name	Description	Storage Information	Handling Conditions	Archived
8	Biopsy tissue				No
10	Blood				No

#### **Note**

Entering a sample type is required when submitting a job that includes samples. You may not submit a job with sample(s) unless at least one sample type has been created. These sample types are distinct from the sample types created in LabCollector

From the sample type list, a sample name or description may be edited by clicking on the desired sample type in the list and then clicking on edit. After making changes, click save to confirm changes or click cancel to avoid making changes.



## ☰ Sample Type Details

Save

Cancel

Name:\* Nasal Swab

Description: take it with cotton stick

Storage Information: store at 4 deg c

Handling Conditions: always wear gloves

The sample type is selected when submitting a job via a drop down menu from the LSM or the LSMremote.

The screenshot shows the 'LSM' interface. At the top, there are 'Save' and 'Cancel' buttons. Below them are fields for 'Job Number', 'Job Date' (2021-06-28), 'Requester', 'Project Code', 'Secondary Requesters', 'Priority level' (set to 'Routine'), 'Expected Date', and 'Purchase Order'. There are also radio buttons for 'Order' (Quota, Request, Job) and 'Samples received?' (No, Yes). Below this is a section for 'Job additional data' with a 'BMI' field. At the bottom, there is a 'Samples' table with columns: Sample#, Type, Comment, sample numeric, checkbox, test, and Text. A red box highlights the 'Type' dropdown menu for the first row, which is currently set to 'Blood' and has 'QC Sample' as an option.

The screenshot shows the 'LSMRemote' interface. It has fields for 'Job Number', 'Requester', and 'Project Code'. To the right, under 'Sample data', there is a dropdown menu labeled 'Type\*' with 'Nothing selected' as the current choice. A red box highlights this dropdown menu, and a red arrow points to it from the left.

### 6.4.4 Create test

Labs can offer a panel of services/jobs which can be defined by one or more assays. From the LSM, navigate to **Admin → Preferences → Tests** (in some versions this is **Admin → Preferences → Assays**).

☰ Test List

Total 19 Records.

Page Size    Page  Of 1

---

Filter  In

<input type="checkbox"/>	ID	Name	Code	Category	Sample Type	Description	Result Type	Accreditation	Locked	Archived
<input checked="" type="checkbox"/>	5	QC for qPCR machines	004		Sang total		Results	✓	<input type="checkbox"/>	No <input type="button" value="⏴"/>
<input checked="" type="checkbox"/>	14	Transcriptomic analysis	003		Serum		File		<input type="checkbox"/>	No <input type="button" value="⏴"/>
<input checked="" type="checkbox"/>	7	RT-qPCR COVID 19	002	COVID-19	Swabs; Blood		Results	✓	<input type="checkbox"/>	No <input type="button" value="⏴"/>
<input type="checkbox"/>	6	DNA extraction	001		Swabs		Results		<input type="checkbox"/>	No <input type="button" value="⏴"/>

Each assay/test is identified by its own ID allowing lab information traceability.

Assays/tests are the last item within the LSM that should be defined as it requires several options to be configured before starting.

The LSM admins can define tests. To add a new assay/test, click on the **Add** button.

☰ Test Details

Save Cancel

1 Name\*

2 Small Name\*

3 Code

4 Billing Code

5 Category

6 Sample Type

7 Range

8 Description

9 Result Type  Results  Sample  File

10 Default Operator\*

11 Default Hours\*

12 Results template\*

13 Processing template

14 Accreditation  Yes  No

INPUT PARAMETER REAGENTS & SUPPLIES PROTOCOL PROCESSING PARAMETER RESULT PARAMETER

15 16 17 18 19

ID Parameter Default Value Unit Mandatory

An assay/test is defined by:

1. **Name:** The name of the test/assay.
2. **Small Name:** Its the name you give to your test, if the actual test name is too long. This helps when you have to choose multiple tests for a sample and you choose category grid view.

☰ Test Details

< List Add Edit

Name Sérologie WNV

Small Name S\_WNV 1

Samples

Sample*	Type*	volume	Comment	3	S_WNV	Sérologie JEV	ARN WNV	ARN USUV	QC for qPCR machines	DNA extractor	2	Assign tests
1624535064720				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Default mode  
Categories grid  
Tests grid mode

3. **Code:** Code for the test/assay. In Clinical labs sometimes the government defines the codes for each test that can be added here.
4. Billing code: at
5. **Category:** The test/assay may be assigned to a category – useful if panels are regularly performed together. This will appear as an option in both the LSM and LSMremote. For more details, go to [📖 Section 3.4.3](#)
6. **Sample Type:** Here you can add the sample types, that are associated with the respective tests. this helps to select from tests (if you have many) when adding a job.
7. **Range:** Here you can add range that you would require in the test. See point 18/19 below. For more details, go to [📖 Section 3.4.7](#)
8. **Description:** Here you can write a brief description of test, for example, what is the test for, what it detects, etc.
9. **Result Type:** Choose from Results, Sample and File.  
Three types of results are available:  
**Results:** Insert selected result fields defined in the dictionary ([see below](#)). The results from parameters selected as assay level will appear as results in the test result report. (For more details, go to [📖 Section 3.4.8](#))  
**Sample:** The result when doing the job is the creation of a new sample for another analysis. This can iteratively create samples for the same assay from which the sample was created.  
**File:** Import a result file made as a result of doing the job multiple files maybe combined in a zipped file. The file will be available for download via the LSM and the LSMremote when the job is completed.
10. **Default operator:** Preferred person to conduct the assay. Can be a single person or a team. This operator or team will see their jobs in the job board, dashboard and calendar if another selection is not made. For more details, about team, go to [📖 Section 3.1.2](#)
11. **Default Hours:** Default time expected to conduct the test/assay. Connects to dashboards or reporting.
12. **Results template:** Template for reporting as result. Select the name from a dropdown. (For more details, go to [📖 Section 3.4.8](#))
13. **Processing template:** Template for reporting the processing parameters. Select the

name from a dropdown. (For more details, go to [📖 Section 3.4.8](#))

14. **Accreditation:** In some labs the tests are accredited by regulatory bodies. If your test is accredited, then you can check the box here and for which you will be able to add accreditation logo of the accrediting body, on your test reports.

Please read the knowledgebase [🎓 KB: accreditation of tests.](#)

Below the assay information, five tabs are displayed to set up the test/assay. The tabs include protocols, reagents, input parameters, processing parameters and result parameters:

15. Input parameters: For Input, Processing and Result parameters it's possible to create a new parameter directly in the test by clicking on the (1) plus symbol and then again selecting the (2) plus symbol again and (3) adding the parameter. (See image below). After that your newly made parameter will appear in the drop down.

**INPUT PARAMETER** REAGENTS & SUPPLIES PROTOCOL PROCESSING PARAMETER RESULT PARAMETER

1 + -

ID Parameter	Default Value	Unit	Mandatory	
--------------	---------------	------	-----------	--

2

Add parameter to test

Parameter  +

Default Value

Unit

Mandatory

Submit Submit & Add another

3 Parameter Details

Save Cancel

Label:\*

Code:

Level:\* Test ▾

Data Type:\* -- Select type -- ▾

Helper text:

Unit: type and press enter

Phrase: type and press enter

On Report:

On Client Form:

On Lab Form:

Backend:

Mandatory:

Search Filter:

Report Color:

**Note**

If you want to reorder parameters just drag and drop them into the required position.

16. **Reagents & supplies:** This tab allows the lab to associate reagents (and their quantity) that will be used to perform the test/assay. The operator will be able to adjust the default amount to reflect actual usage when doing a job. Reagents and Supplies are connected to the LabCollector module Reagents & Supplies to provide details on available lots including information about amounts and dates of validity.

INPUT PARAMETER	REAGENTS & SUPPLIES	PROTOCOL	PROCESSING PARAMETER	RESULT PARAMETER
<input type="text" value="Begin typing to search for a reagent"/> <input type="text"/> <input type="button" value="+"/> <input type="button" value="-"/>				
Reagent	Default Quantity			
PBS - Phosphate-Buffered Saline (10X, pH 7.4)	5			
Distilled Water (D/W)	2			

17. **Protocols:** Several protocols can be added for the sametest if required. You can create and add protocols here just by typing the names. Please see the (refer to [section](#).)
18. **19. Processing and Results parameters:** Processing parameters are ideally for all of those intermediate results whereas Result parameters are the final results that you wish to display in the report for the client. If **Results** was selected as **Result Type**, you must choose the ones that are relevant for this assay from the list of parameters. There are additional aspects of the results parameter to define including: the default value, unit, the range, default phrase, default phrase if the result is lower than the range, default phrase if the result is higher than the range and whether or not to make the parameter mandatory. You can click on the small + blue button to add the parameter and then select the details about the parameters.

Add parameter to test

Parameter  +

Default Value

Unit

Phrase

Low

High

Mandatory

INPUT PARAMETER	REAGENTS & SUPPLIES	PROTOCOL	PROCESSING PARAMETER	RESULT PARAMETER				
ID	Parameter	Default Value	Unit	Phrase	Low	High	Mandatory	<input type="checkbox"/>
112	Equipment-QA/QC	15	Amp	normal	low	high	<input checked="" type="checkbox"/>	<input type="checkbox"/>

When you add ranges to the test (See point 7 above) Then you will see the range as well while adding the parameter. Here you will have to add the highest and the lowest values for your range.

Add parameter to test

Parameter  +

Default Value

Unit

Phrase

Low

High

Range QA/QC  -

Mandatory



### 6.4.4.1 Adding Categories/Panels

Tests may be assigned to a category or categories/Panel. This menu allows the assignment of assays to a category (also known as Panels). When submitting a job either individual tests may be selected or categories of tests may be selected.

You can now add or upload the categories easily into the LSM by going to [Admin](#) → [Preferences](#) → [Categories](#). Please refer to [section 3.4.5](#)

☰ Test Details

Save Cancel

---

Name\*

Small Name\*

Code

Billing Code

Category

Sample Type

Range

Description

Result Type  Results  Sample  File

Default Operator\*

**Select Category** \_ □ ×

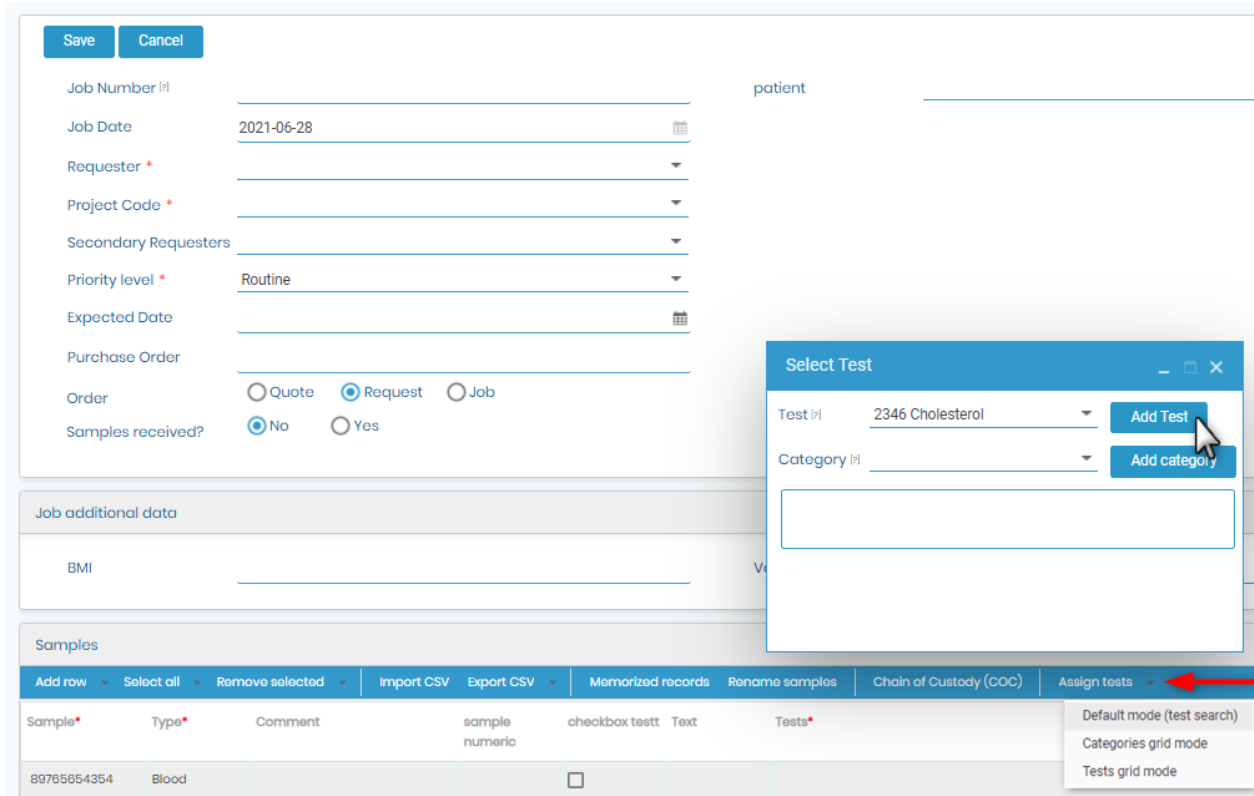
Select (P)

New

Blood test; Lipid Test

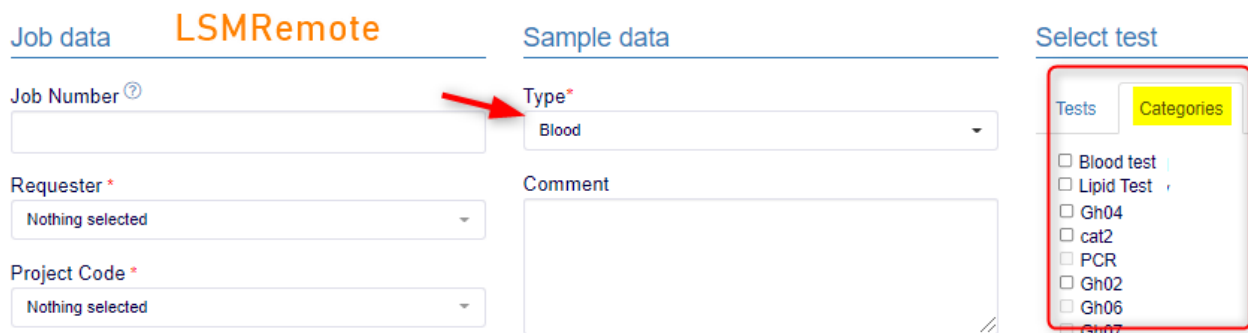
---

The selection appears by sample when submitting a job from the LSM.



When submitting from LSMRemote there are two choices.

1. One is a tickbox on the right hand side.



2. The other is a spreadsheet style with an option to upload a csv file.

LabCollector results Submit order

**Job data**

**Job Number** ⓘ

**Requester** \*

Nothing selected

**Priority level** \*

Normal

**Purchase Order** ⓘ

**Case Record** \*

Nothing selected

[Create new case record](#)

**document check**

Drop files here or click to upload

**Sample data**

Add row Add 10 rows Replicate Select all Unselect Remove selected Clear all Import CSV Export CSV Assign tests

Sample*	Type*	volume	Comment	Tests*
1624895405542	Tissue			

**Select test** x

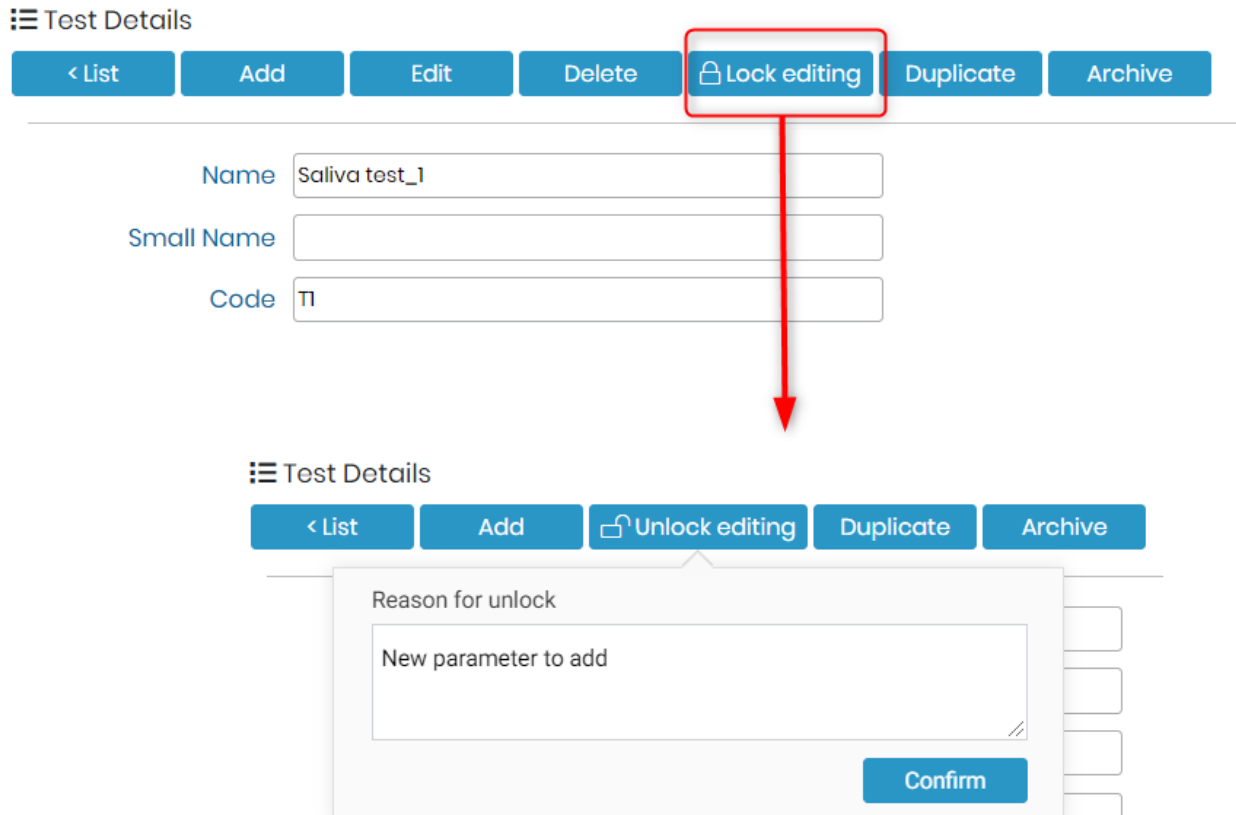
Tests Categories

- COVID-19
- Panel 1
- Panel 2

Assign Cancel

### 6.4.4.2 Locking Tests

Once the configuration of a test is complete the test can be locked to prevent further editing. To unlock editing you must provide a reason.



These reasons can be tracked in audit log of LSM for compliancy purposes.

**Audit Logs List**

Export Archive Print Total 50959 Records.

Page Size 25 Page 1 Of 2039

Date  Filter  In All

Date	Action	Comment	Username	IP
25-Jun-2021 08:49:46	Unlocked Editing test 1	New parameter to add	Wanda Wong	176.130.24.191
25-Jun-2021 08:48:53	Locked Editing test 1		Wanda Wong	176.130.24.191
25-Jun-2021 08:35:11	Parameter Equipment-QA/QC updated	ID 112   Label Equipment-QA/QC   Code   HelperText   Datatype N   Unit Amp   Phrase high low normal   Level A   OnReport ON   OnForm OFF   OnLabForm OFF   Backend	Wanda Wong	176.130.24.191

### 6.4.4.3 Linking Test to Workflow add-on


In Workflow Manager add-on version 4.38+ a link to the LSM can be designed in order to send samples to a test lab for example.

The workflow template needs to have a link node containing a link URL such as: [https://\[YOUR\\_URL\]/extra\\_modules/lsmremote/addfromlc.php?testIDs=X](https://[YOUR_URL]/extra_modules/lsmremote/addfromlc.php?testIDs=X), where X corresponds to the test ID in the LSM

**☰ Test List**

**Add** **Delete** **Print**

---



<input type="checkbox"/>	ID	Name	Code	Category
<input type="checkbox"/>	1	Saliva test_1	TI	cat2; test_cat_01; gh2016
<input type="checkbox"/>	2	Glicémie	GLI 2	Gh02; Gh166; Gh33; Gh218; Gh12; cat2; gh2016
<input type="checkbox"/>	3	Cholesterol LDL		cat2; Gh14; Gh218

## 6.4.5 Categories

**NEW!** Now you can add the test categories/Panels, with the help of this new option. You can also import the CSV of the test panels. Go to [Admin](#) → [Preferences](#) → [Categories](#).

There are 2 ways you can add categories in the LSM:

### A) Add test in categories by ticking checkbox

1. Click on "Add" button and write the name of your category and the description about it.
2. Tick the check boxes in front of test that you would like to import in this category. You can also filter by test names? ID or codes and tick the checkbox in front of the tests to add them in category.
3. Once done, click on save to create category with selected test in them.

☰ Category Details

3 Save Cancel

1 Name:\* Cat\_023  
Description: Lipids, blood tests

---

TESTS

Type to filter ✕ Clear Select file Choose File No file chosen Import CSV

ID	Code	Name	Select
1	TI	Saliva test_1	<input checked="" type="checkbox"/>
2	GLI 2	Glicémie	<input checked="" type="checkbox"/>
3		Cholesterol LDL	<input checked="" type="checkbox"/>
4		Equipment Control Chart	<input type="checkbox"/>
5		Results and file test	<input checked="" type="checkbox"/>
6	PCR	PCR test	<input type="checkbox"/>
7		COVID-19	<input type="checkbox"/>
8		cb_1	<input checked="" type="checkbox"/>

### B) Import test in categories

1. Click on "Add" button and write the name of your category and the description about it.

- Import the CSV file with all the test names that you would like to add in the category.

\*These tests names *SHOULD* be present in the LSM, **Admin → Preferences → Tests**.

\*The the first Row header, will not be taken into account while importing the CSV.

- Once done, click on save to create category with selected test in them.

Category Details

3 Save Cancel

1 Name\*: Cat\_023  
Description: Lipids, blood tests

---

TESTS

Type to filter    No file chosen  
 2

ID	Code	Name	Select
1	TI	Saliva test_1	<input checked="" type="checkbox"/>
2	GLI 2	Glicémie	<input checked="" type="checkbox"/>
3		Cholesterol LDL	<input type="checkbox"/>

Lab Service Manager  
Add-on/Lab Service Manager/Preferences/Tests

Home Job ADMIN

Test List

Add Delete Print

ID	Name	Code	Category	Sample Type	Desc
1	Saliva test_1	TI	cat2; test_cat_01; gh2016	saliva; Blood 1; Blood	
2	Glicémie	GLI 2	Gh02; Gh166; Gh33; Gh218; Gh12; cat2; gh2016	Blood	
3	Cholesterol LDL		cat2; Gh14; Gh218		
4	Equipment Control Chart		cat2	Referanse materiale vann; SLP;	
5	Sample Data trending		cat2		

category\_1

File Home Insert Page Form Data Revit View Help DYM

Clipboard Font Alignment Number Conditional Format as Cell Styles

A15 Alignment fx

Test Name	A	B	C	D
1	Saliva test_1			
2	Cholesterol LDL			
3	Glicémie			
4	Sample QC/QA			
5	RTPCR-COVID			
6	Sample Data trending			
7	Equipment Control Chart			
8	Data trending Tests			





### 6.4.6 Kits

**NEW!** You can now create kits inside LSM and use them in connection with LSMRemote. this option is helpful for labs that receive sample via kits.

Please read the knowledgebase  [KB: how to create & use kits in LSM](#)

☰ Kit List

Add

ID	Name	Prefix	Description	Last number	Minimum number size	Status	Tests	Print labels
1	RA	K	Testing protein truncations	0	3	Active	RA	
7	Gha kit	GH	Test tetanus antibodies	16	3	Active	ghTest04, ghTest01, ghTest05, ghTest02	
3	COVID-Kit	COV	Testing coronavirus	5	4	Active	RTPCR-COVID, COVID-19	
8	Gha Kit 2	GK	Test lineage hierarchy	0	3	Active	ghTest04, ghTest03.GO, ghTest05, ghTest02, ghTest01	



## 6.4.7 Create ranges for test

Please read the knowledgebase  KB: [how to create ranges for LSM.](#)

Ranges for parameters are defined by **Admin** → **Preferences** → **Ranges**. You can add different ranges with their description and if required, the age, gender or species.

**Range Details**

---


Label:\*

Description:

Gender:

Age:  -

Species:



**Ranges List**

Total 18 Records.

Page Size    Page  Of

---

Filter  In

ID	Label	Description	Gender	Age	Species
<input type="checkbox"/>	567	ghRange2			
<input type="checkbox"/>	562	ghRange1			
<input type="checkbox"/>	560	Equipment control Range			

1. You need to EDIT the test and click to add the range.
2. You can either create and add or add existing ranges.
3. You can add the range values, by clicking on parameter name or adding the parameter. these can be either processing or result parameter. While adding a parameter to the Processing or Result parameter tabs you can add a range with both the lower and upper bound filled in or just one of the two. Filling in just the lower bound will result in the  $\geq$  symbol showing before the value (see image) and filling in just the upper bound results in the  $\leq$  symbol showing before the value.

ghRange1 21  -



Result Parameter					
Parameter	Value	Unit	Phrase	Comment	Range
Equipment-QA/QC *	<input type="text"/>	<input type="text" value="v"/>	normal <input type="text" value="v"/>	<input type="text"/>	≥ 21

 Note

The range values will only show in a test which is inside a job.  
You can add ONLY one range per test.

An individual test (and all of the associated samples) will only have a single range applied.  
The range is selected when submitting the job.

Lab Service Manager Add-on

Assign batch Shipment status Printable Export Report Notify Group by Filter

Expand all

Records from 1 to 100 Page 1 100 rows per page

Job	Job Status	Priority level	Requester
<input checked="" type="checkbox"/> > 1175: JOB-827 (29-Jun-2021 by Wanda)	Pending	Routine	[Cristina Amil] Agilebio IT

- Open
- Edit job
- Quote
- Accept/Reject

Samples

Chain of Custody (COC) Export CSV

S-Image	S-File	S-date	Tests	Received Date	Token
			Equipment Control Chart	2021-06-29 07:12:20	CC66D001



JOB-827 (Cristina Amil) > 68735462 > Equipment Control Chart

Save & Start  Accreditation Active

Sample	68735462	Case Record	Alborán O'mcsteamy Clôe
Type	Equipment QC	Case Gender	
Number	1944	Case Date of Birth	09-Oct-2020
Comment		Estimated Start Date	29-Jun-2021 07:12:20
Estimated End Date	01-Jul-2021 16:12:20	Time Left	+2d 8h
Operator *	StaffPFullAccess_1 (StaffPFullAcc)	Range *	ghRange1

Protocol & Equipment

Protocol	Equipment Category	Equipment Name
	PCR Machines	Select

Protocol & Equipment

Protocol	Equipment Category	Equipment Name	Schedules	File
	PCR Machines	Bioanalyzer	Schedule	

Result Parameter

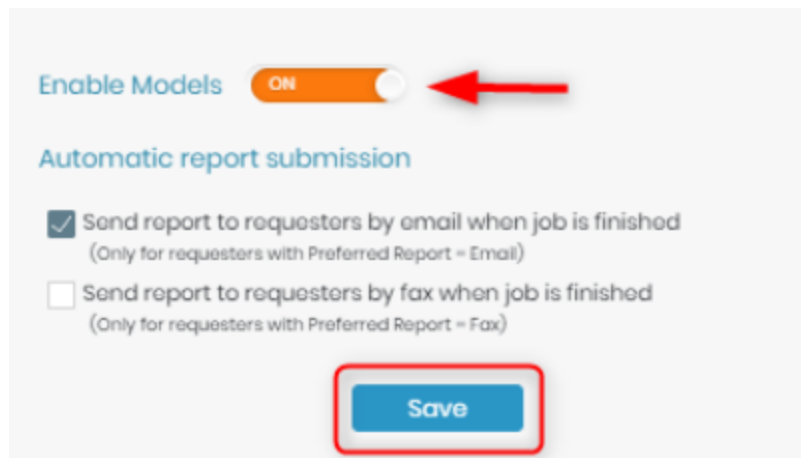
Parameter	Value	Unit	Phrase	Comment	Range
Equipment-QA/QC *	23		normal		21 - 50

### 6.4.8 Models

Models allow you to create templates specific to the requirements of your requester. Refer to [section 3.1.1](#)

The job templates can be use to submit jobs from either from LSM add-on or LSMRemote.

If your requesters/customers/partners, ask for different requirements to submit a job, like specific set of job or sample level parameters, then you can create specific templates for each requester. To activate this option you need to go to **Admin → Setup → Job Requests → Enable Models.**



Once activated, you can create models by going to **Admin → Preferences → Models.**

Models

**+** Create new model 1

1 job template 1  
desc

3 gh model 1  
Model 1 created by ghalia

4 gh model 2  
Model 2 created by ghalia

5 gh model 3  
Model 3 created by ghalia

6 gh model 4  
Model 2 created by ghalia

Name 2

Description

5 **Submit** **Delete**

Job Parameters 3

ID	Label	Visible
153	BMI	<input type="checkbox"/>
172	Test Result	<input type="checkbox"/>
173	Value	<input type="checkbox"/>
175	Add Text	<input type="checkbox"/>

Sample Parameters 4

ID	Label	Visible
105	S-numeric	<input type="checkbox"/>
119	checkbox testt	<input type="checkbox"/>
174	Text	<input type="checkbox"/>
176	Text 2	<input type="checkbox"/>

1. You need to click on "Create new model" to create a new template.
2. You can add name and description of your model.
3. The job level parameters that you created in **Admin → Preferences → Parameters** (Refer to [section 3.4.2](#)) will be visible here. You can select which parameters are required

by a specific requester and add them here by clicking on the visible button.

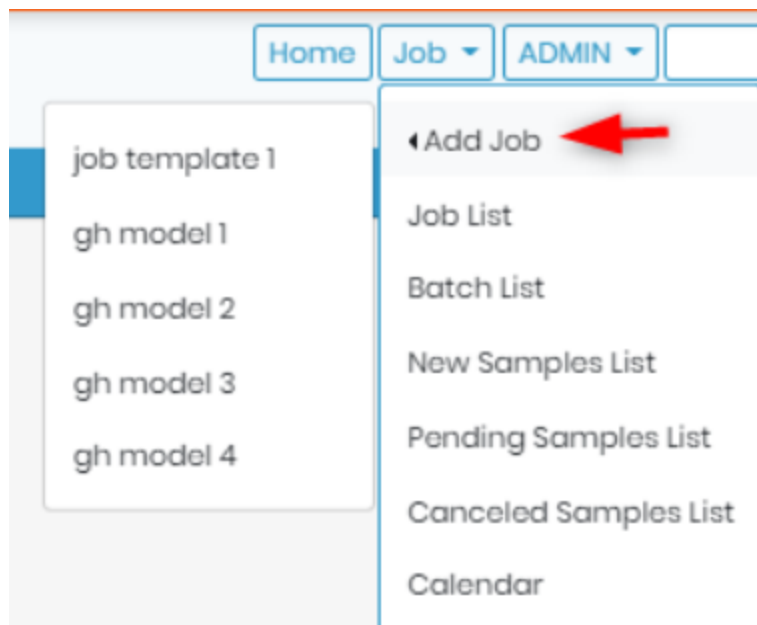
### Job Parameters

ID	Label	Visible
153	BMI	<input checked="" type="checkbox"/> 

4. The sample level parameters that you created in [Admin → Preferences → Parameters](#) (Refer to [section 3.4.2](#)) will be visible here. You can select which parameters are required by a specific requester and add them here by clicking on the visible button.

5. Once you have set visibility for all the parameters, you can click on submit to create the template.

Now when you add job in LSM you will be asked to select the template with which you want to create the job. The template you select will have parameters that you activated during the template creation.



### 6.4.9. Report & invoice templates

In this section, you can create templates for result reports, a chain of custody list, a batch list and invoices to personalize documents that you will deliver to your customers and your staff.

Each template is assigned a name and a short description.

The editor offers numerous options to customize templates. There are paste special buttons in the editor for images and for common programs such as MS-Word. HTML can be used to create templates. In many cases copying and pasting from existing forms, such as your existing documents or websites can be used to speed up the design or editing of templates.

This system is designed to enhance quality and save time. Manual entry is minimized. Default tags are detailed below depending on the template. Individual tags corresponding to the parameters you created in [section 3.4.2](#) can also be used, just copy `##NAME_OF_PARAMETER##` in the template.

Result and processing report templates can be chosen when you create a test (section 3-4-5) and can also be defined in the Templates options. Through [Admin](#) → [Preferences](#) → [Report & invoice templates](#), on the top right, you have a button **Options**. Here you can define template for tests, COC reports and Batch reports.

You can also select the job report mode:

- by default, results are separated by test;
- or integrated,
- results of all tests in a job are merged.

Selections are saved automatically.

Options

Dynamic fields pointer

Templates options

COC report template [?] CoC

Batch report template [?] Batch Report

Job report mode [?] Integrated (merge results of all tests)

Test	Results template	Processing template
Acetamidiprid (R)	Gh-Process-Result	
Acetamidipride	General	
Boscolid (R) (F) t	General	
cb_1	Gh-Process-Result	
Cholesterol	InvoiceQuote	
Cholesterol LDL	Gh-Result	ft
COVID-19	Gh-Process	InvoiceQuote
COVID-19	Gh-Invoice	
Data trending Tests	Batch Report	

 Note

Just click in the cell where you want to select a new template. The update is automatic.

#### 6.4.9.1 Results & processing report templates

A template is related to an assay/test. For multiple tests/assays in a project, different templates can be applied.

To create templates that will include job specific details, you need to use specific HTML tags that will be replaced by the corresponding values in the final result document.

Please read the knowledgebase  KB: [how to create a result report.](#)

Please read the knowledgebase  KB: [how to create a Processing report.](#)

Specific HTML tags for results and processing reports:



**Results template / Processing template**

```

##results## - results narrow table
##results_extended## - results wide table
##results_extended_wdate## - results wide table with completed date
##results_merged## - results wide table, without break by sample
##process_extended## - processing parameters table
##details## - results detailed table
##matrix## - results matrix
##matrix_with_sum## - results matrix with sum on footer
##matrix_catalog## - tests matrix
##samples## - samples list
##requester_name## - requester name
##requester2_name## - secondary requester name
##requester_address## - requester address
##requester_email## - requester email
##requester_company## - requester company
##requester_users## - requester users
##job_number## - job number
##job_date## - job date
##job_end_date## - job end date
##job_id## - job identifier
##job_param## - job custom parameters
##job_submitter## - the job submitter's name
##sample_number## - sample number
##sample_name## - sample name
##sample_type## - sample type
##sample_comment## - sample comment
##sample_id## - sample id
##test_name## - test name
##test_code## - test code
##test_description## - test description
##operator_name## - operator name
##validator_name## - validator name
##protocols## - protocols list
##protocol_name## - protocol name
##protocol_description## - protocol description
##report_number## - report unique identifier
##today_date## - report generation date
##labname## - lab name
##reagents## - reagents list
##equipments## - equipments list
##equipments_protocols## - equipments and protocols list
##equipments_protocols## - equipments and protocols list
##case_record## - case record name
##case_gender## - case record gender
##case_dob## - case record date of birth
##case_qr_code## - QR code with direct link to report
##received_date## - sample received date
##completed_date## - sample completed date
##samples_line## - samples list in a line
##tests_line## - tests list in a line
##amendment_title## - amendment label with previous report ID
##amendment_comment## - reason to restart
##corrective_title## - corrective title or empty if no correction
##corrective_comment## - corrective comment
##corrective_date## - date of correction
##accreditation_seal## - accreditation configured in the page Regulatory options

```

### 6.4.9.2 Invoice templates

A template can be related to an invoice/quote.

To create templates that will include job specific details, you need to use specific HTML tags that will be replaced by the corresponding values in the final invoice document.

Please read the knowledgebase  KB: [how to create a Invoice.](#)

Specific HTML tags for invoices:


#### Invoice template

```
##details## - invoice details
##samples## - samples list
##requester_name## - requester name
##requester2_name## - secondary requester name
##requester_address## - requester address
##requester_email## - requester email
##job_number## - job number
##job_date## - job date
##job_id## - job identifier
##job_submitter## - the job submitter's name
##invoice_number## - invoice number
##invoice_date## - invoice date
##tax_number## - requester tax number
##purchase_order## - job purchase order
##protocols## - protocols list
##protocol_name## - protocol name
##protocol_description## - protocol description
##case_record## - case record name
##case_gender## - case record gender
##case_dob## - case record date of birth
```

### 6.4.9.3 Chain of custody/shipment templates

A template can be related to a CoC.

To create templates that will include job specific details, you need to use specific HTML tags that will be replaced by the corresponding values in the CoC document.

Please read the knowledgebase  KB: [how to create a CoC.](#)

Specific HTML tags for CoC reports:

#### CoC report template

```
##details## - Chain of Custody (CoC) list
##requester_name## - requester name
##requester2_name## - secondary requester name
##requester_address## - requester address
##requester_email## - requester email
##job_number## - job number
##job_date## - job date
##job_id## - job identifier
##job_submitter## - the job submitter's name
```

#### 6.4.9.4 Batch report templates

A template can be related to a batch report.

To create templates that will include batch specific details, you need to use specific HTML tags that will be replaced by the corresponding values in the Batch report.

Specific HTML tags for Batch reports:

##### Batch report template

##details## - batch samples list

##batch## - batch

#### 6.4.9.5 Dynamic tags

You can add dynamic tags using the custom field parameters you created in [section 3.4.2](#)

##### Dynamic tags

Any parameter can be used as tag adding ## around it. e.g. ##parameter\_name##

For display the parameter's comment append \_comment. e.g.

##parameter\_name\_comment##

For case record fields prepend case\_. e.g. ##case\_field\_name##

For attached modules fields prepend the module code\_. Ex: ##IS\_field\_name##

## 6.4.10 Email/SMS Templates

LSM is now capable of sending notifications via email or sms to either all users or requester or case records (patients). You can use "Dynamic Fields Pointer" that you can use in the email template, to auto-populate the field values.

The screenshot displays the 'Email/SMS Templates' configuration page. On the left, there is a list of 10 templates, each with a red circular icon containing a number. The templates are:

- 1 Access Token (SMS/Email with access token)
- 2 Results Notification (SMS/Email notification of results)
- 3 Send Customer Report (Email containing report)
- 4 Send Customer Bulk Report (Email containing a bulk report)
- 5 Job Acceptance / Rejection (Email sent when job is accepted / rejected)
- 6 Activate User (Email sent to approved users)
- 7 Email to All Users (Email sent to all users)
- 8 Email to All Requesters (Email sent to all requesters)
- 9 Email to Case Records (Email sent to case records)
- 10 Retrieve Password (Email to retrieve password)

The main area shows the configuration for the 'Access Token' template. It includes a description: 'Email sent to patient, containing the token that will allow them access their own results from LSMRemote.' and 'Additional Info: It needs config in Admin > Setup > Case Record.' There are two checkboxes: 'Use Default Email' (unchecked) and 'Use Custom Email Template' (checked). Below this is a rich text editor showing the email body content:

Hello ##case\_record##.

Your [redacted] test has been received at one of our labs and is now in the queue for processing. This email is not your result notification.

For your personal information security, this email only contains your access token which will be required to retrieve your result later. We will send you a follow up email when your final result is ready for viewing which will include a link to the website portal.

Token: ##token##

Regards,  
##labname##

A red arrow points to a 'Dynamic Fields Pointer' icon in the top right corner of the rich text editor. Below the editor, there is a 'Save Email Options' button.

1) Access Token: You can either use the default template or create your own custom template. This email will go when a job is created via LSMRemote. The email goes to the case record, who has registered their details along with email during registration. Please read the knowledgebase 🎓 KB: [LSMRemote pre-registration.](#)

2) Results Notification: Once the job is finished / validated the case record will receive notification that the results are released and are available on the following link. Please read the knowledgebase 🎓 KB: [Case record activation and notification settings](#)

3) Send Customer Report: To send email to customer with the report copy or Batch list.

4) Send Customer Bulk Report: To send email sent to requester containing a bulk report (Batch list).

5) Job Acceptance / Rejection: Email sent to requester / job submitter when a job is accepted / rejected.

**Additional Info:** Require enable this option in [Admin → Setup → Job Requests](#)

6) Activate User: Email sent to approved users registered through LSMRemote.

**Additional Info:** Require enable this option in LSMRemote. Please read the knowledgebase

 [KB: LSMRemote registration of User.](#)

7) Email to All Users: Email sent to users through [Admin → Contacts → Users → Mail](#)

8) Email to All Requesters: Email sent to users through [Admin → Contacts → Requesters → Mail](#)

9) Email to case records: Email sent to patients through Job > Job List.

**Additional Info:** It needs config in [Admin → Setup → Case Records](#)

10) Retrieve password: Email sent to external users that forgot password to access LSMRemote.

**Additional Info:** Require enable this option in LSMRemote. Please read the knowledgebase

 [KB: Configuration of LSMRemote.](#)

### 6.4.11 Manage costs

This menu allows general cost parameters definition and attribution to each test/service.

Navigate to **Admin → Preferences → Costs**.

#### Note

Your LSM license must include the billing option to have access to this feature.

You can edit currency, invoice prefix, tax rate, invoice template, invoice number start, tax default and payment mode.

#### Note

Note that these values can be connected via the API for situations where you use an existing form or portal on your website.

You need to click on edit, in order to change the settings for costs.

☰ Manage Costs

**Edit** ←

1 Currency: Euros 5 Invoice template: InvoiceQuote View

2 Invoice prefix: INV- 6 Invoice number start: 1

3 Tax/Vat List @: 0 7 Tax/Vat Default: 0

4 Payment Mode: Purchase Order 8 Invoice detail mode: One line for each test and € ▾

9 Use VAT field:  Yes  No

Label Left blank to use default

cn 增值税

en value-added tax

es impuesto al valor agregado

fr taxe sur la valeur ajoutée

no belasting over de toegevoegd

pt imposto sobre o Valor Acresce

10 TESTS 11 CATEGORIES 12 EXTRA LINES 13 PRIORITY LEVEL

Test Name	Code	Fixed Price	Hourly Price
Saliva test_1	T1	10	0
Glicémie	GU 2	20	0
Cholesterol LDL		30	0
Test2		40	0
Results and file test		50	0

**1) Currency:** You can add currency of your country. You need to type the currency name. For example: Euros.

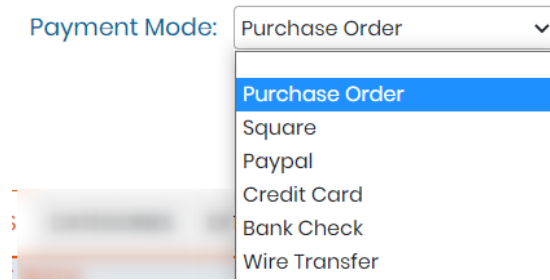
**2) Invoice prefix:** This will be the prefix before your each invoice number. For example: INV-

**3) Tax/Vat List:** Here you can add different values of tax or vat, separated by |. For example 10|20|15.

*\*Please do not add the percent sign. Just add the value.*


**4) Payment mode:** Here you can choose what kind of payment method the requester will make, to do the job (test).

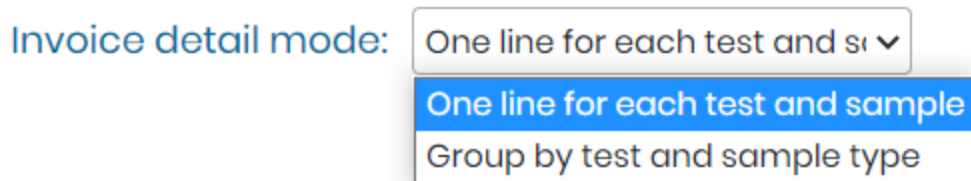




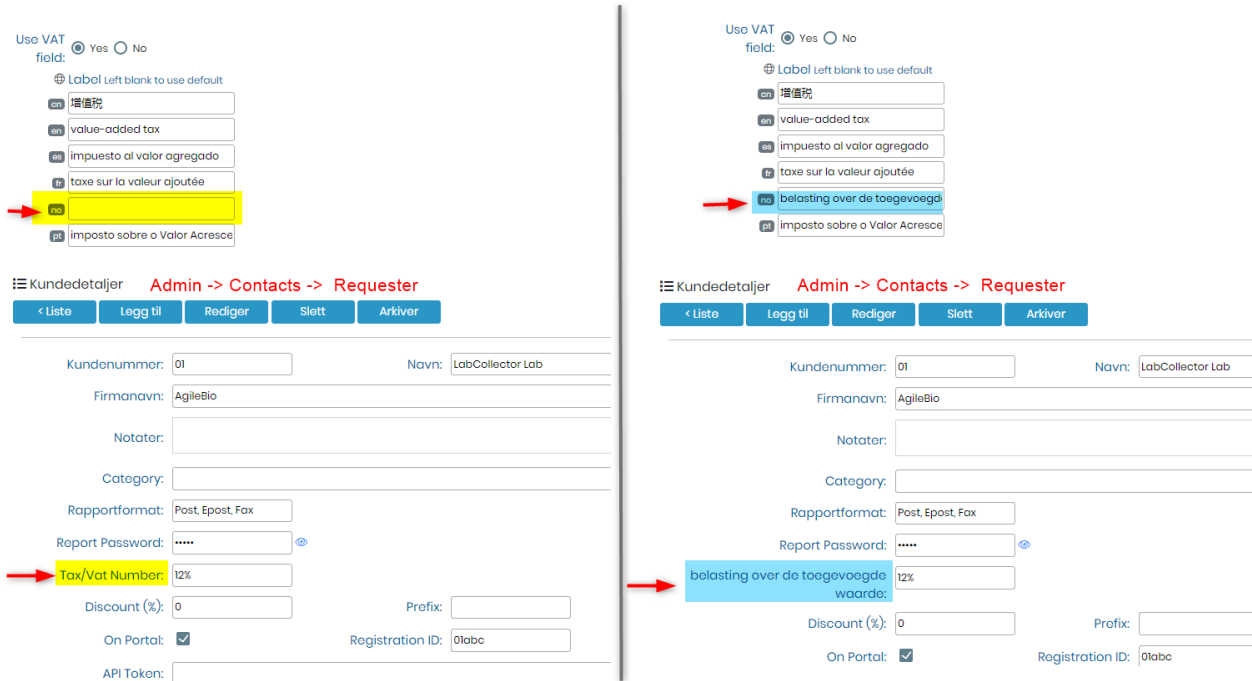
**Note**

The payment option is for requesters to pay the labs to do the analysis for their samples.

- 5) Invoice template:** you can add a template of how you invoice will look. Please read the knowledgebase  [KB: how to create invoice template.](#)
- 6) Invoice number start:** This option will allow the invoice number to start by the number you enter here. For example you start with 101 so the first invoice number will be prefix-invoice number you entered that is INV-101.
- 7) Tax/Vat Default:** Here you can add the default value for the tax for all invoices.
- 8) Invoice detail mode:** Here you can choose which format you want for invoice.



- 9) Use VAT field:** If you don't want to use VAT field you can choose here. You can also choose the label for the VAT field, how it appears on your requester page when you change the language of the LabCollector.



**10) Tests:** Here you will see the tests, their code and you can also enter the test price depending on if it is fixed or hourly.

**11) Categories:** Here you will see test categories. (refer to [section 3.4.5](#))

**12) Extra lines:** You can add more lines to your invoice.

TESTS	CATEGORIES	EXTRA LINES	PRIORITY LEVEL
Code	Label	Fixed Price	Hourly Price
071	Extra charges	25	
072	Oxygen Rental		15

You can go to invoices by either **Admin → Invoices** or by going to **Admin → Contacts → Requesters → Invoices tab**. Here you can select the invoice and **EDIT** to add the extra line. You can add more extra lines by clicking on the + sign. Once you are done **SAVE** the invoice to store the changes.

Status:  Date Paid:

Tax/Vat Rate:  Discount:

Purchase Order:  ERP/CRM reference:

INVOICE DETAILS

Test Code	Test Name	Sample Type	Sample Name	Fixed Price	Hours	Hourly Price	Line Total
	Cholesterol LDL	swab	20210706-001-001	30	1	0	30.00 Hon
<input type="text" value="071 Extra charges"/>				25	0	0	25.00 Hon
							Subtotal: 55.00 Hon
							Tax: 0.00 Hon
							Total: 55.00 Hon

**13) Priority level:** This allows you to fix the rates/charges for different priority levels. You can add either the fixed price or the percentage increase in the rate of tests. You can also choose to skip the requesters discount (refer to [section 3.1.1](#)) if needed.

TESTS	CATEGORIES	EXTRA LINES	PRIORITY LEVEL
Priority level	Fixed Price	Percentage	Skip Requester Discount
Urgent	<input type="text" value="20"/>	<input type="text"/>	<input checked="" type="checkbox"/>
Routine	<input type="text" value="0"/>	<input type="text" value="4"/>	<input type="checkbox"/>
Same Day	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="checkbox"/>

Tips / Hints

Hourly price can also be used as price per UNIT. For example, you have test on slides, and you set up the price for 1 slide (/hour). Instead of enter the samples 10 times, you can set up a cost per hour and when the staff do the test, they can indicate the number of slides they worked on.

#### **6.4.12 Regulations compliance & validation**

If you need security or regulation compliance, you can activate this function. By default the value is OFF. You need to activate it according to your lab requirements. It helps to activate options for validations of tests/jobs, activation of accreditation logo, enhance security measures, password protection to view reports, etc.

## Regulatory options

### 1 Compliance ON

- User must confirm password to enter results
- Admin must confirm password to validate results

1.1  One-step review (one validator)

1.2  Two-step review (two distinct validators)

1.3  Report submission to requesters is protected by password

1.4  Limit the test list only to validated tests (locked for editing)

1.5  Activate barcode verification

Select barcode field

Default (Sample Name) ▼

### 2 Deviation module

- Select a custom module to enable the option to add deviation records to jobs, samples and tests

Samples\_QC ▼

### 3 Reagent lots

- Block the start of tests using reagents without active lots

### 4 PDF options

- PDF/A

### 5 Accreditation

Rich text editor toolbar with icons for undo, redo, bold, italic, underline, strikethrough, font color, background color, bulleted list, numbered list, link, unlink, insert table, insert image, insert video, insert audio, insert link, insert image, insert video, insert audio, source, and help.

Certified by



6

Save

## 1. Compliance

**1.1) One step review:** You can choose this option if you want your jobs to be validated by the supervisor of the lab. The jobs will reach finished status only when they are validated by supervisor.

**1.2) Two step review:** You can choose this option if you want to validate your jobs with two distinct supervisors in lab. The jobs will reach finished status only when they are validated by two different supervisors.

**1.3)** You can activate this option to send result reports to requested in a password protected manner.

**1.4)** While creating tests in **Admin → Preferences → Tests** you can validate the test by locking the editing feature. After this when you choose limit only to validated tests, then only locked tests will be seen, when you create a job.

**1.5)** While creating a job, you need to add sample name. By activating this barcode verification, you need to just scan the barcode of the sample and the name (number) will be automatically entered. By default the sample name will be selected for barcode verification. However, you can also activate this option for any parameter that you have created at job, sample or test level. (refer to [📖 section 3.4.2.1](#))

If this function is activated, when users perform validation actions (single sample or batch), the system asks the user to confirm their password. Only the super-administrator or users defined with Administrator role within the LSM can validate results. The validator and timestamp of validation will be automatically added to reports. The number of validations needed can also be configured (one or two).

## 2. Deviation module

On the job, test, assay level you can add record in the choice of your module.

**1)** You need to select the module for the deviation. The deviation module will be a custom module only and not default modules.

**2)** When you create a job by going to **Job → Add job** and when you start the job by going to **Job → Job list**, you can click on options button.

**3)** In options click on follow-up

**4)** Select Deviation record option

**5)** You will see a pop-up to create a record in the deviation custom module you selected.

You can fill the fields accordingly and

- 6)** Once the record is created you can see it by going directly in the custom module.
- 7)** In the LSM the job, sample or test will have a small deviation icon. When you click on it you will see a popup of the deviation record you created.

**LSM->Admin->Preferences->Regulation**

1

Deviation module

- Select a custom module to enable the option to add deviation records to jobs, samples and tests

Kits

**LSM->Job->job list**

Assign batch Shipment status Printable Export Report Notify

Records from 1 to 100 Page 1 100 rows per page

Job	Job Status	Priority level
<input checked="" type="checkbox"/> 1201: 20210707-006 (07-Jul-2021 by Job G		
<input type="checkbox"/> Cholesterol (1 sample) Test		
<input type="checkbox"/> 1969: 20210707-006-0 Sample		
<input type="checkbox"/> 1197: 20210707-002 (07-Jul-2021 by Wanda		
<input type="checkbox"/> Cholesterol LDL (1 sample)		
<input type="checkbox"/> 1965: 20210707-002-001		
<input type="checkbox"/> 1196: 20210707-001 (07-Jul-2021 by Wanda		
<input type="checkbox"/> Cholesterol LDL (1 sample)		
<input type="checkbox"/> 1964: 20210707-001-001		
<input type="checkbox"/> 1185: 20210706-002 (06-Jul-2021 by Wanda		

2

3

4

- Open
- Edit job
- Quote
- Accept/Reject
- Delete
- Manage
- Report
- Case Record
- Clipboard
- Follow up
- Deviation record
- Exclude from invoice
- Include in invoice

**Custom deviation module**

Kits

New Record

Record Data

5

Name: 1277013854

Owner: adminGroup\_1

barcode prefix: Job

lsm sample type: Blood

checkbox\_cat\_1st\_level: value 1 value 2 value 3 (Add Values)

checkbox\_cat\_1st\_level 2: A (Add Values)

select\_cat\_2nd\_level 2: 1 2 3 (Add Values)

lsm test: Cholesterol  
the test name linked in LSM

NT\_cat\_1: None (Add Values)

NT\_category3: 4

Save

**Custom deviation module**

Kits

Modules / Kits

Search by: Keyword ID

New Record

Operator: All Status: Active Sort results by: list ASC Strict search

Expand search options

28 results found | 15, Show/Hide all records on page

ID	Name	lsm test	barcode prefix	lsm sample type	NT_category3
29	1277013854	Cholesterol	Job	Blood	4

6

Lab Service Manager (LSM) Deviation:

Requestor	Job Number	Job Date	Job Status	Sample	Test
ghRequester05	202107-006	2021-07-07	Pending		

select\_cat\_2nd\_level 2: 3

lsm test: Cholesterol

NT\_cat\_1:

NT\_category3: 4





### 3. Reagents lots

Here you can block the use of reagents which do not contain active lots or have only expired lots.

#### Note

Active lots means a lot which is not expired or the expiration date is either 00.00.0000 (no expiration date) OR greater date than today OR is not disposed off.


Please read the knowledgebase  KB: [how to dispose lots.](#)

Please read the knowledgebase  KB: [how to manage lots.](#)

### 4. PDF options

PDF/A is an ISO standardized version for PDF, for long time preservation, avoid tampering of results, etc. LSM offers to protect the result reports pdf by activating this option in the regulation tab.

### 5. Accreditation

You can put a logo for accredited tests in the result reports. Please read the knowledgebase  KB: [how to accreditate results.](#)

### 6.4.13 Customizations

Here you edit the text and privacy policies of the patient pre-registration forms in LSMRemote.

Please refer to [📖section 7.3\)](#)

## 6.5. Invoice Management (quotes and invoices)

Invoice management is only for the administrators and finance staff.

To access this option go to the [Admin → Invoices](#).

In this section, you can find quotes, pending invoices, issued invoices and paid invoices.

There are options to search and filter the quotes and invoices.

When a job is finished and approved, an invoice is automatically created regarding costs parameters (previously defined via costs and assay details). The financial administrator can retrieve this menu of all invoices created.

**Note**  
Quote status is listed by default & you might see empty page. To view invoices please, select in filter tab, **Pending** status.

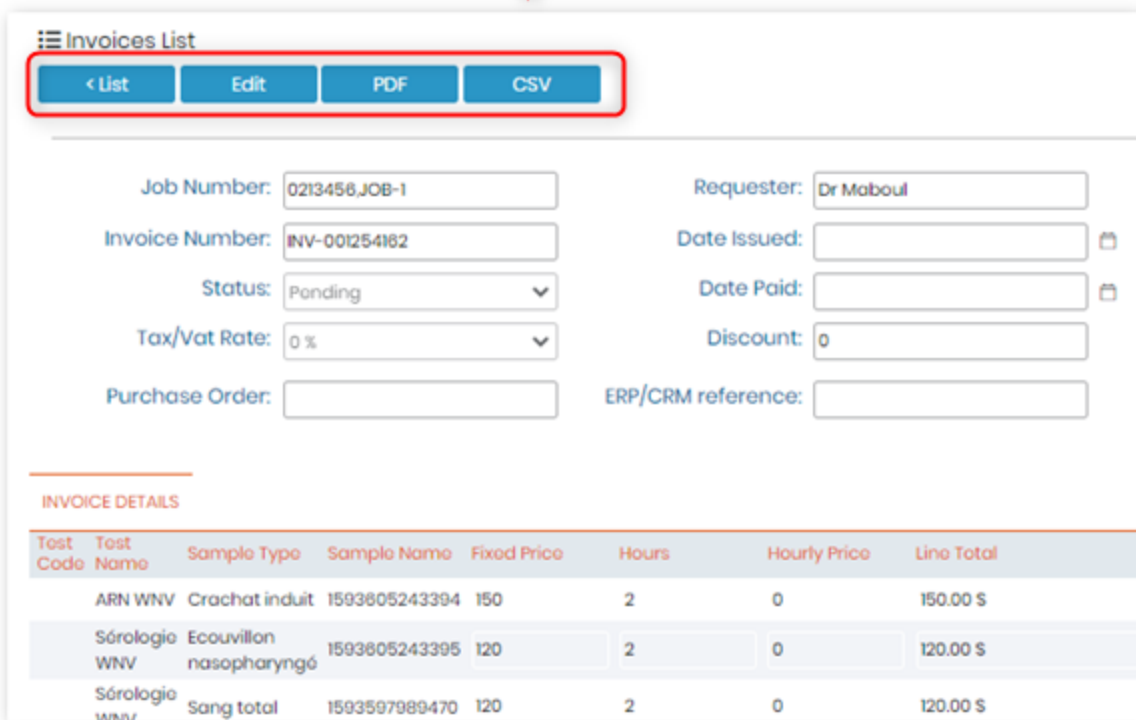
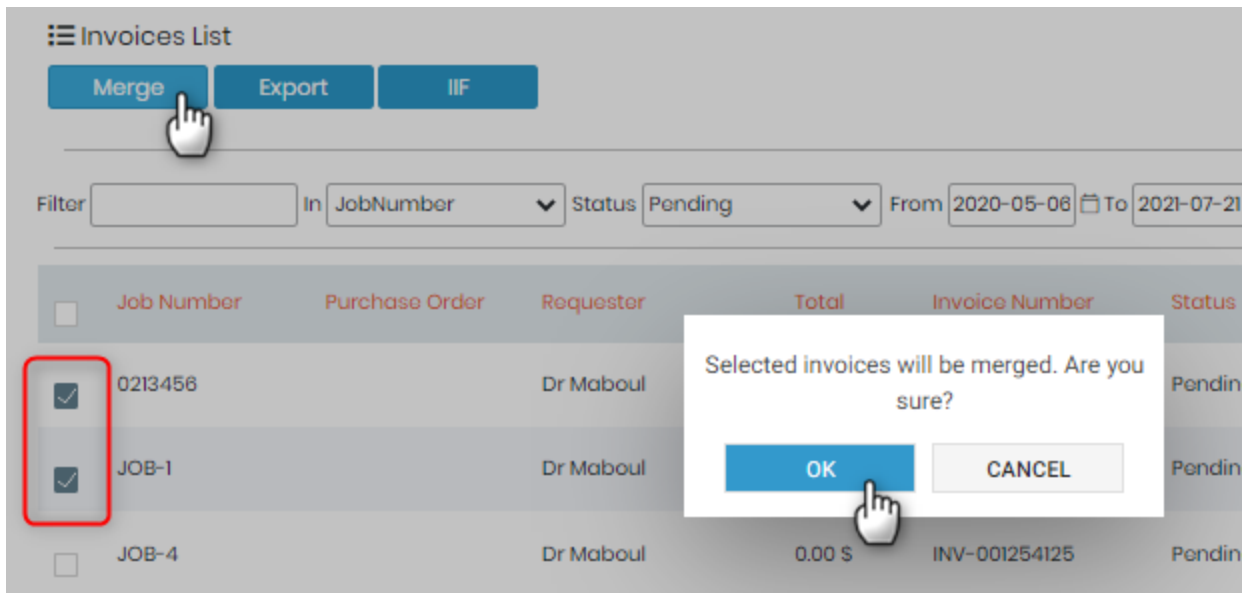
**Invoices List**

1 Merge 2 Export 3 IIF

4 Filter  In JobNumber Status Pending From 2020-08-03 To 2021-07-21 Apply Clear

5 <input type="checkbox"/>	Job Number	Purchase Order	Requester	Total	Invoice Number	Status	Date Issued	Date Paid
<input type="checkbox"/>	012345		Dr Maboul	0.00 \$	INV-001254133	Pending		
<input type="checkbox"/>	JOB_01		LabCollector Lab	0.00 \$	INV-001254134	Pending		
<input type="checkbox"/>	LC_00001		LabCollector Lab	0.00 \$	INV-001254135	Pending		
<input type="checkbox"/>	JOB-31		LabCollector Lab	0.00 \$	INV-001254136	Pending		

1. You can merge invoices if you want. You just need to check the box in front of job number and click on merge to merge the invoices. You will receive a pop-up asking if you want to merge. You just click on OK and you will be redirected to a page, where you can download the merged invoice pdf, edit the merged invoice or export it as CSV.



2. You can export the list of invoices in a CSV format. You can also perform a search and export the list of invoices according to your search.

3. Invoices can be exported as .iif (quickbooks) file types.

4. This tab allows you to filter your invoices according to date, job number, status, etc. You can apply and clear the searches using the buttons.

5. You will see the list invoices with of checkboxes to select the invoices for further actions like merge, etc.

Double clicking on a line will provide more detailed information on a particular job invoice. The sample list and costs per sample/test will be available in the lower portion of the screen. The upper portion allows finance staff (or admins) to edit the status of the order (quote/pending/issued/paid), provide details on when invoices were issued and paid. Additionally, the tax rate and discount can be edited.

This information is also possible to edit using the API.

The invoice can then be generated as either a PDF or CSV file.

**Invoices List**

< List Edit PDF CSV

---

1 Job Number:  6 Requester:   
2 Invoice Number:  7 Date Issued:    
3 Status:  8 Date Paid:    
4 Tax/Vat Rate:  9 Discount:   
5 Purchase Order:  10 ERP/CRM reference:

---

**INVOICE DETAILS**

Test Code	Test Name	Sample Type	Sample Name	Fixed Price	Hours	Hourly Price	Line Total
	Serology test-Virus	Blood	LC_1604388994766	0	2	0	0.00 \$

---

Subtotal: 0.00 \$

**1) Job Number:** This will contain the job number. The settings for this can be set in [Admin](#) → [Set](#) → [Job & sample naming](#).

**2) Invoice Number:** This will be the prefix before your each invoice number. The settings for this can be set in [Admin](#) → [Preferences](#) → [Costs](#).

**3) Status:** Here you can see different status of the invoices.

Status:

- Quote
- Pending
- Issued
- Paid

**4) Tax/Vat Rate:** This is the rate you can set this by adding or editing the requester detail to

[Admin](#) → [Contacts](#) → [Requesters](#)

**5) Purchase Order:** Here you can add the purchase order number.

**6) Requester:** Here you will see the name of the requester linked to the job of the invoice.

You can set this by going to [Admin](#) → [Contacts](#) → [Requesters](#)

**7) Date Issued:** Here you can set the date of the invoice to when it was issued.

**8) Date Paid:** Here you can set the date of the invoice to when it was paid.


**9) Discount:** Here you will see the discount that is set when the requester is created by going to [Admin](#) → [Contacts](#) → [Requesters](#)

**10) ERP/CRM:** Here you can add the number if you have the invoice number on a ERP/CRM software on your side.

## 6.6. Barcode labels

LabCollector offers the possibility to print several **sample** barcode labels at once.

Please read our  KB: on [compatible printers with LabCollector.](#)

With the Memorize Records functionality, you can search for records in a module, click on the memorized items icon and go to **Tools**  **Barcode labels series** to print a batch of barcodes.

Record IDs are automatically added to the barcode labels series. If you don't want to use these records, click on clean and select other records.

Please read our  KB: on [how to configure a printer with LabCollector.](#)

For Brady and Zebra printers you can use a "Raw Network bridge" utility by LabCollector in order to connect to the printer.

Please check our  KB: on [how to connect to a USB printer.](#)

Please read the knowledgebase  KB: [Sample batch printing from a job in LSM.](#)

### **6.6.1 Generic Printing**

You can read about this from the [online manual](#) of LabCollector.




## **6.6.2 Direct EPL printing**

You can read about this from the [online manual](#) of LabCollector.

### 6.6.3 Dymo printing

You can read about this from the [online manual](#) of LabCollector.

Please read the knowledgebase  KB: [DYMO labels in LSM.](#)

## 6.7. Audit Trail Log

The audit function allows administrators to follow up user activities in the **LSM**. Go to the **Admin** Menu and choose the **Log** tab.

The application displays all modifications. Each one is dated and identified by an action, a user login and IP address. Specific actions or time periods can be reviewed using the search engine.

**Audit Logs List**

Export Archive Print Page Size 25 Page 1 of 726 Total 18146 Records

Date Filter In All Apply Clear

Date	Action	Comment	User
11-08-2021 18:28:48	Now Job inserted	Job ID 142	NAL 8.130.24.191
11-08-2021 18:28:08	Setup - Jobs requests changed	Now requests NEED ACCEPTANCE   Notificato JOB SUBMITTER AND REQUESTER   Secondary Requesters NO   Assign Default mode (test search)   Category mode Default mode (category is optional)   Samplos received NO   Automatic report email NO   Automatic report fax NO   Enable kit YES   Enable models NO	NAL 178.130.24.191
09-08-2021 10:50:39	Now Model - inserted	ID 3   Name   Description   Paramotor IDS 58	NAL 78.198.74.83
09-08-2021 10:50:28	Now Paramotor - test Sample inserted	ID 78   Label test Sample   Code   HolperText   Datatype N   Unit   Phrase   Level S   OnReport ON   OnForm ON   OnLabForm ON   Backend OFF   Mandatory OFF   Filter OFF	NAL 78.198.74.83

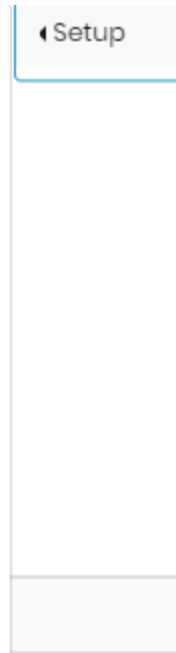
The results can also be exported.

AuditlogID	Username	DTS	Action	Comment	IP
1730	admin	9/23/2017 6:23	New Assay-Test 2 Cat 1 inserted		
1729	admin	9/23/2017 6:22	New Assay-Test 1 Cat 1 inserted		
1728	admin	9/23/2017 5:57	Job 306 Sample 1861 Assay completed		

## 6.8 Setup

Setup will provide you with various options to configure and setup your LSM & LSMRemote.

- 6.8.1** License
- 6.8.2** Jobs Requests
- 6.8.3** Job and Samples Naming
- 6.8.4** Job List Options
- 6.8.5** Priority Levels
- 6.8.6** Projects & Modules
- 6.8.7** Case Record
- 6.8.8** ◀ Attached modules
- 6.8.9** Files Path
- 6.8.10** Integrations



### 6.8.1 License

Here you can visualize the license of the LSM you have.

For example, like below image you will see these options:

🔗 LSM LICENSE

- 1 Your Machine/Computer Activation Key:  
E:MSpBHCDNFPPb.GQsoBGVIuIJKHHoWBGbXZo9\_APFCCGMico\_KLTEP|KwRPIF\_XoFRLaEwNE:MPFThDbQu
- 2 Your Current License:  
EMXbtCHQNFJKPtEPutoPQNMplbVQLpWPQTbUoIUTGCQQEMXoPVUXFPKUoVGPaQGbpFFVSIrNWFVTGTvNTUpprjkkdkjcpInkvw2.t9E8si2x16s86hz-xocmlsAu6\_obmlkz:9:  
(Issued on 08032021)
- 3
 

Limits	Features
Active requesters limit: 250 <b>63 requesters</b>	Billing: Yes
Samples limit (month): 1500 <b>113 samples</b>	PWNHealth: Yes
	1Health: Yes
	ORDRS: No
	HL7 I-Collector: Yes
	Remote Portal: Yes
- 4 Enter a New License Number:
- 5 [Save License](#)

1. You can see your machine or computer activation key.
2. You will see the current license of your LSM.
3. Depending upon the license you will see the number of requester and samples (per month) then you will see their limit. If you exceed this limit you will have to purchase a license with more threshold of requester and samples.  
You will also see features if you have purchased options like
  - Billing option (You will see option for Costs activated in [Admin → Invoices](#))
  - Integration for PWNHealth, 1Health, ORDRS, HL7 or I-Collector or
  - Having the LSMRemote portal.
4. If you want to activate your new license, then you can add it here. Generally, AgileBio will provide you with the same.
5. You can click the license here.

## **6.8.2 Jobs Requests**

You will find options for configuring the job request in LSM.

## Jobs Requests

### 1 Acceptance

New jobs need laboratory acceptance

Notify the acceptance/rejection of new job requests to:

- Job submitter's Email  
 Requester's Email (the same used for report and billing)  
 Both

All jobs are automatically accepted

### 2 Allow secondary requesters

- No  
 Yes

### 3 Default option for samples received

- No  
 Yes

### 4 Default option to assign tests

- Default mode (test search)  
 Categories grid mode  
 Tests grid mode

### 5 Category mode

- Default (category is optional and all tests are free to order)  
 Mandatory (category is required and only categories can be ordered)

### 6 Enable Kit



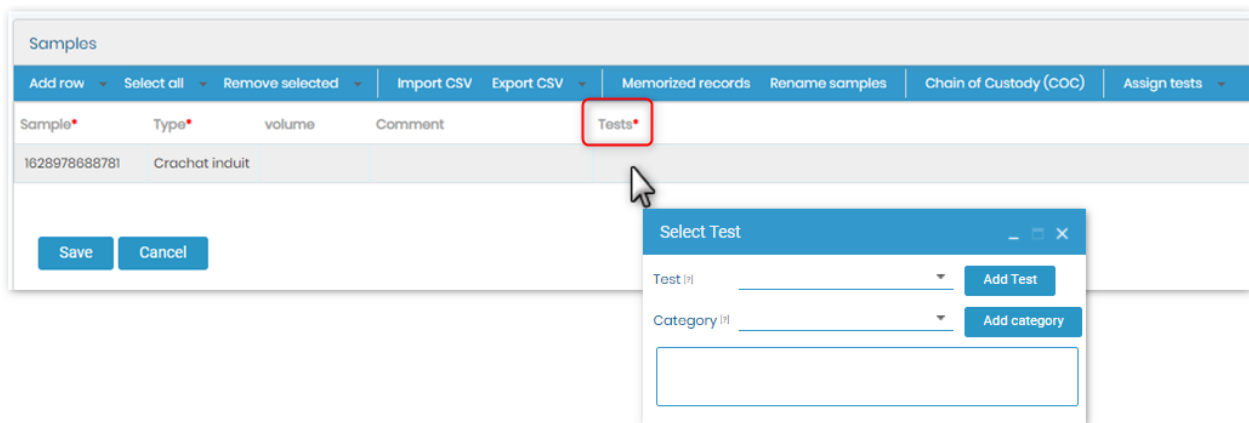
### 7 Enable Models



### 8 Automatic report submission

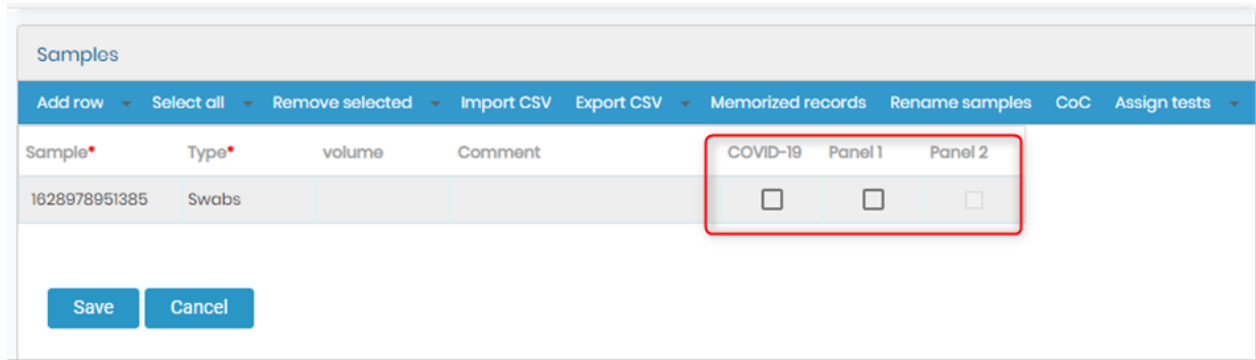
- Send report to requesters by email when job is finished  
(Only for requesters with Preferred Report = Email)
- Send report to requesters by fax when job is finished  
(Only for requesters with Preferred Report = Fax)

1. Acceptance: . LSM requires job to accept a job after it is created either from LSM add-on or LSMRemote. Here you can find options for changing the job acceptance.
  - Once the job is accepted or rejected the notification will be send to either:
    - Job submitter email
    - Requester email (it can requester/provider/client)
    - Both (Job submitter & Requester email)
  - If you want to automatically accept all jobs then you can select this option "All jobs are automatically accepted".
2. If you have more than one requester for the job creation then you can activate this option to add extra secondary requesters.
3. If you want the option for samples as received by default then you ca activate this option.
4. When you create a job, you need to add test. You can change here the option for how adding test will appear.
  - **Default mode (test search)**  
 LSM add-on: here you can select test by typing the initial letters of the test.

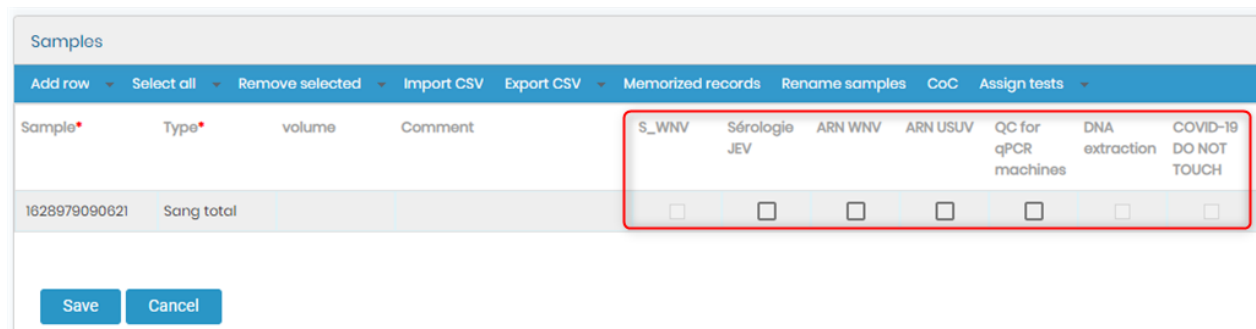


- **Categories grid mode:** Here you will see the categories of the test. When you add the category all the tests in the category will be added for the sample to be performed.





- **Tests grid mode:** Here we will see all the tests and their name.



5. Category mode:

- Default (category is optional and all tests are free to order) meaning that you will see options for both, either to add a category or a tests.
  - Mandatory option, you will only be allowed to add categories and not directly the tests.
6. Enable Kit function allows to add the kit option and also activate it on LSMRemote. Please read the knowledgebase 🎓KB: [how to add kit and activate in LSMRemote.](#)
  7. Enable Models allows you to add model templates for adding a job. For more information please refer to 📖[section 3.4.8.](#)
  8. Automatic report submission will allow you to:
    - Send report to requesters by **email**, when a job is finished.
    - Send report to requesters by **fax**, when a job is finished.
  9. You can save all the settings once you are done.

### 6.8.3 Job & Sample naming

Here you will see options for job & sample naming:

#### Job and samples naming

---

**1**  **Semi-automatic (editable)**

- Job number:  
Template with autoincrement. *Example: JOB-1*  
Choose template  Next number
- Sample name:
  - Prefilled with random long number. *Example: 1568298332617*
  - Not prefilled (empty and mandatory)
  - Sequential short number. *Example: 1*  
Next number

**2**  **Automatic (based on date)**

- Job number:  
Date (YMD) + autoincrement. *Example: 20190912-001*
- Sample name:
  - Job number + autoincrement. *Example: 20190912-001-001*
  - Date (YMD) + autoincrement. *Example: 20190912-1*

**3** **Sample barcodes**

Default (S+ID)  Sample name

1D symbology  2D symbology

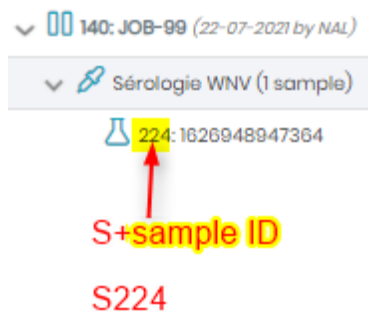
**4** **Sample name custom label**

Label Left blank to use default

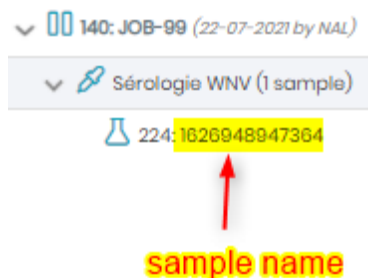
**5**

1. Here you can see semi-automatic options.
  - o Job number: Every job that you add will be added in auto increment manner. For example: JOB-1, JOB-2, JOB-3 and so on.
  - o You can also choose a template and a number so that the jobs can be started from that template and number.

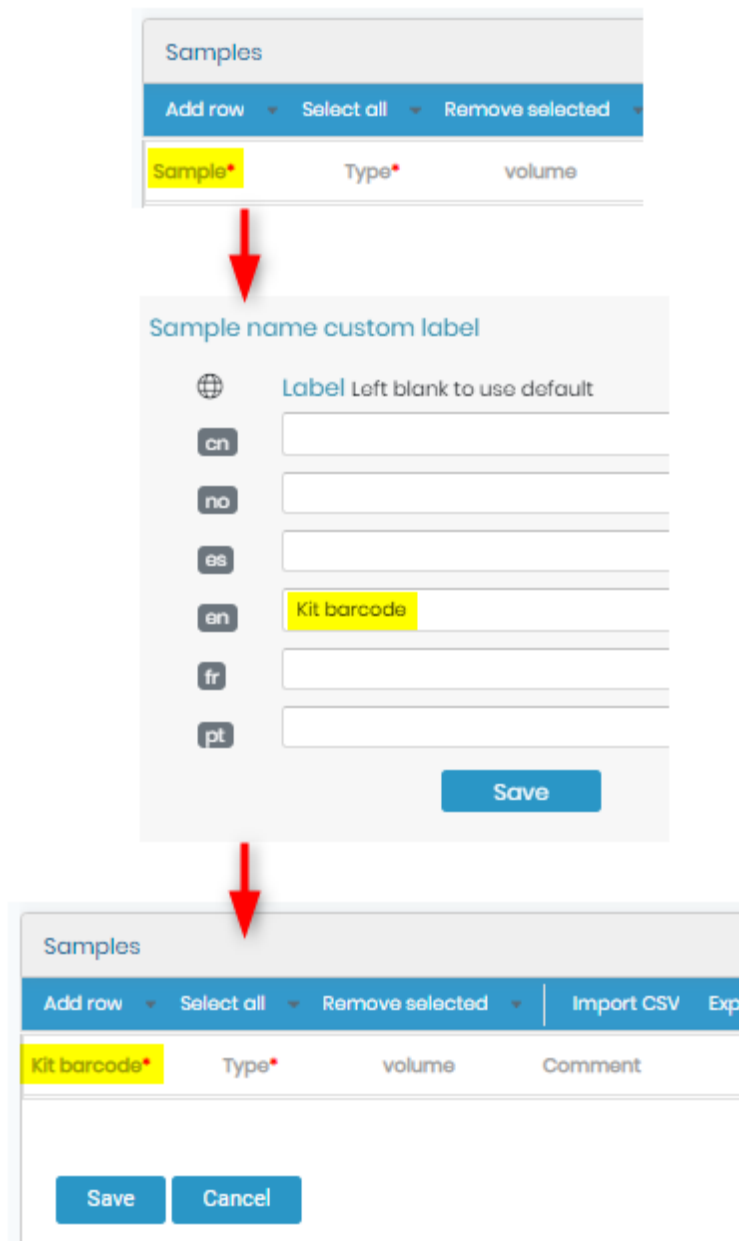
- Sample name:
  - You can choose to add a pre-filled random long number. It will be generated automatically by LSM.
  - You can choose to add nothing in the sample and it mandatory to add a number.
  - You can try to add a sequential short number starting from a number template. For example it can start from 00000001,0000100, etc.
- 2. Here you can see semi-automatic options.
  - Job number can be automatic like date (Year Month Day) + autoincrement. For example, 20210912-001, etc.
  - Sample name can be either job number (selected before) + autoincrement. For example, 20210912-001-001, etc.
  - Date + autoincrement. For example, 20210912-001, etc.
- 3. You can select what you want to have has sample barcode.
  - Default meaning sample S+ID.



- Sample name will be sample barcode.



- 4. You can create a custom name for your sample label.



5. Once you are done, you can save them.

### 6.8.4 Job List options

Here you choose options for job list.

#### Job list options

---

**1** Default option to group the jobs and samples in the job list

Job-Test-Sample  
 Job-Sample-Test  
 Test-Status-Sample  
 Batch-Test-Sample

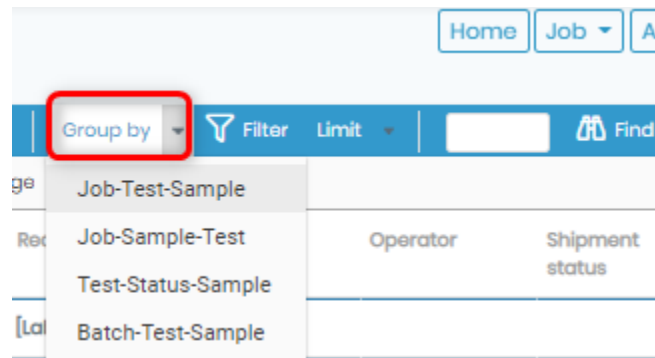
**2** Default option to limit the total number of jobs in the job list

100 rows  
 250 rows  
 500 rows  
 1000 rows  
 2500 rows  
 5000 rows  
 No limit

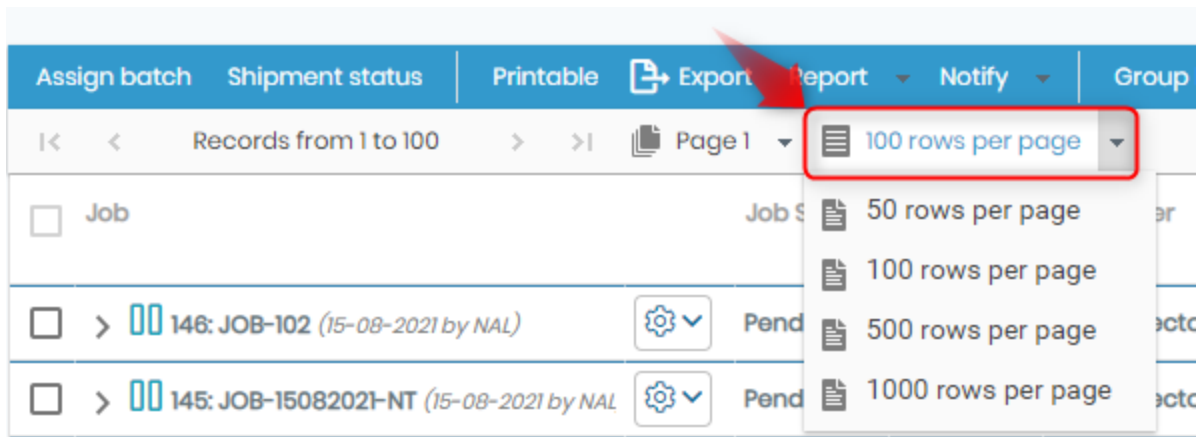
**3** Save

1. You can choose to do group jobs and samples in job list.

You can see these options in [Job](#) → [Job list](#).



2. When you search jobs, you can limit how many rows of job you can see in the list. You can also see this when you go to [Job](#) → [Job list](#).



3. Once you are done, you can save the job.

### 6.8.5 Priority levels

Priority level tells how you can label the jobs. They can be treated depending upon their priority level.

To see the changes for this go to [Job → Add Job](#).

Priority level \*

Normal

Normal  
Rush  
Slow

Priority level

Priority level custom labels Left blank to use default

	Normal	Rush	Slow
cn			
no			
es			
en	Today	Important	Regular
fr			
pt			

Save

Priority level \*

Today

Today  
Important  
Regular

### 6.8.6 Projects & Modules

1. You can enable the settings for projects and modules here.
2. LSM add-on offers possibility to add samples to a module of choice for the selected project code (Go to **LabCollector** → **Tools** → **Project code**).
3. You can either create a sample as a record in chosen module when job is created or accepted.
4. You can save the settings for project & modules.

The screenshot shows the 'Projects & Modules' configuration interface. It includes a toggle for 'Enable project code', a table for selecting modules for various projects, a checkbox for 'Automatic records creation' with a dropdown menu, and a 'Save' button. Red circles with numbers 1-4 highlight these key elements.

Projects & Modules	
1	Enable project code <span>ON</span>
2 Select the LabCollector module	
1 BC	Samples
2 PP00001	Samples
3 Covid 19 project	Sequences
4 Project S	Sequences
5 Protein A	Samples
6 Mise au point ICSI	Samples
7 Projet P	Samples

3 Automatic records creation

Create record when job is created

- job is created
- job is accepted

4 Save



### 6.8.7 Case Record

Here you can configure settings case records.

Please read the knowledgebase  KB: [how to set case record.](#)

### 6.8.8 Attached modules

You can any custom module to LSM by going to **LSM → Admin → Attached modules → Add attached module.**

Please read the knowledgebase  **KB:** [How to link custom module to LSM.](#)

### 6.8.9 Files Path

- This option is to choose a folder in server to store LSM files (results & protocols).
- Generally to the viewers it will be greyed out as it is mostly handled by AgileBio.
- If your LabCollector is hosted with AgileBio then we will manage it.
- If it is hosted with you (on your servers) then you can manage the storage of files through this option in LSM.
- The usual default filepath is:
  1. extra\_modules/lsm/doc-store/results
  2. extra\_modules/lsm/doc-store/protocols

### Files Path

---

**1** Result Files Path

Default:

Custom:

**2** Protocol Files Path

Default:

Custom:

You are going to change the files path. The content will not be moved automatically. You have to move the results and/or protocols folder from old path to new one.

### 6.8.10 Integrations

Integrations is a new feature in LSM that allows you to connect to 3rd Party websites that have their own portal for job creation. With the help from API you can import job information from these 3rd party websites into LSM add-on.

This feature gives a access to configure the 3rd Party websites with API to connect to LSM. Some of the configurations that are already existing for 3rd Party websites in the add-on are

- PWNHealth
- 1Health
- ORDRS
- LabSoft

Each of the above have their own configuration settings.

For example:

PWNHealth.

#### Integrations

PWNHealth  
pwnhealth.com

---

1Health  
thealth.io

---

ORDRS  
ordrs.io

---

LabSoft  
labssoftweb.com

Enable PWNHealth API  No 1

API URL

App Key

App Token

Lab Facility

Submit

2 Data Mapping

#	Level	Parameter	PWN field	Default	Direction
<span style="background-color: #007bff; color: white; padding: 2px 5px; border-radius: 3px;">Add</span>					

3 Range rules

#	Assign range	if PWN field	is equals to
<span style="background-color: #007bff; color: white; padding: 2px 5px; border-radius: 3px;">Add</span>			

4 Tests Mapping

#	Test type	Test
<span style="background-color: #007bff; color: white; padding: 2px 5px; border-radius: 3px;">Add</span>		


1. You can switch on the API button and add the settings for the same. (These connection details such as API URL, key, token, Facility will be provided by the 3rd party IT personnel, in this case PWNHealth lab team).
2. Data mapping will allow you to connect the parameters in LSM via API to 3rd party website.

Please read the knowledgebase  KB: [how to create LSM parameters.](#)

3. Range rules will allow you to add ranges to the tests, if any.

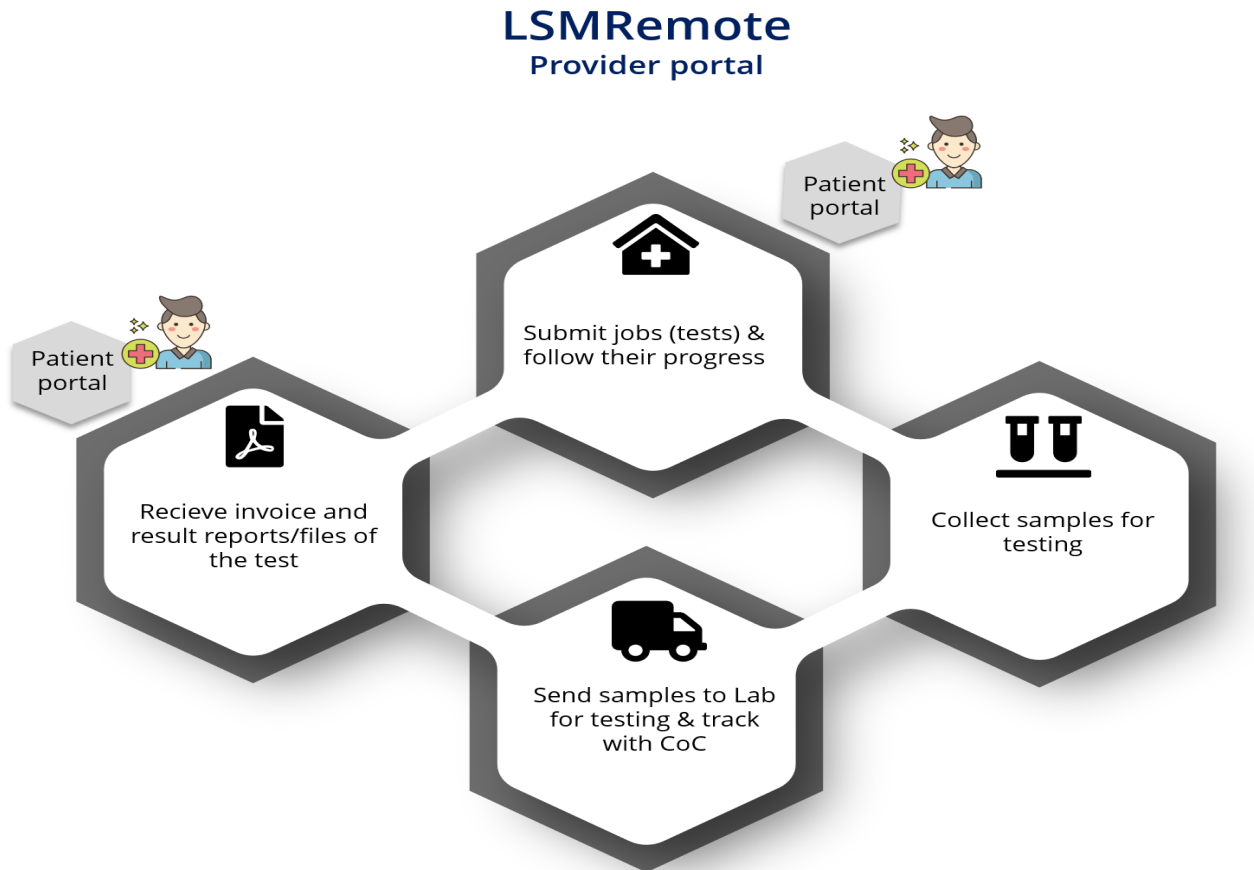
Please read the knowledgebase  KB: [how to add ranges in LSM](#)

4. Test mapping will allow you to add tests that need to be connected.

Please read the knowledgebase  KB: [how to create tests.](#)

## 7. LSMRemote

LSMRemote allows the clients or customers of the lab that request a test in the form of jobs. Jobs contain the information about the patient or samples, tests, etc.



You will be able to see both the provider portal and patient portal at the same time. You can separate the 2 logins by changing the URL.

\*You need to replace YOURLABURL by the instance name of your LabCollector.

- Provider portal  
[https://YOURLABURL/extra\\_modules/lsmremote/index.php?login=1](https://YOURLABURL/extra_modules/lsmremote/index.php?login=1)
- Patient portal  
[https://YOURLABURL/extra\\_modules/lsmremote/index.php?login=2](https://YOURLABURL/extra_modules/lsmremote/index.php?login=2)

### Provider Portal

Sign in

Register

Forgot your password?

### Direct Report Access

Access with token

Forgot your token?

Patient registration

Job pre-registration

Kit activation

Forgot your patient QR-code?

The LSMRemote has a minimal interface to allow 1) viewing of the status of jobs, 2) retrieval of results, 3) submission of jobs. The exact views will vary as they correspond to the way each lab configures their LSM.

View of LSMRemote job list showing the status of jobs and links to retrieve results. Note that output can be sent as a .csv file to another program if needed (contact AgileBio for details).

My Lab Logo

[Get results](#)   [Submit order](#)   [Lang▼](#)   [Super Administrator▼](#)

Show  entries Search:

ID	Job Number	Received	Status	Released	Results
419	JOB-262	2018-04-12	Finished	2018-04-12	<a href="#">Report</a> <a href="#">PDF</a>
418	JOB-261	2018-04-06	Finished	2018-04-06	<a href="#">Report</a> <a href="#">PDF</a>
417	JOB-260	2018-04-06	Finished	2018-04-06	<a href="#">Report</a> <a href="#">PDF</a>
416	JOB-259	2018-04-06	Finished	2018-04-20	<a href="#">Report</a> <a href="#">PDF</a>
415	JOB-258	2018-04-05	Finished	2018-04-16	<a href="#">Report</a> <a href="#">PDF</a>
414	JOB-257	2018-04-05	In progress		
413	JOB-256	2018-04-04	In progress	2018-04-20	
412	JOB-255	2018-04-04	In progress		
411	JOB-254	2018-04-03	In progress	2018-04-03	
410	JOB-253	2018-03-30	Quoted		<a href="#">Quote</a>

Showing 11 to 20 of 315 entries

[Previous](#)   [1](#)   [2](#)   [3](#)   [4](#)   [5](#)   ...   [32](#)   [Next](#)

View of LSMRemote order submission form. Note that the appearance will vary slightly depending on the lab-specific configuration. The form may be connected to an existing website if desired. For more information, please read the [KB-116](#).

[Get results](#)   [Submit order](#)   [Lang ▾](#)   [Logout](#)

Job data	Sample data	Select test
<b>Requester</b> <input type="text" value="Douglas Adams"/>	<b>Type*</b> <input type="text" value="Iron content"/>	<b>Tests</b> <b>Categories</b>
<b>Priority level</b> <input type="text" value="Normal"/>	<b>Container</b> <input type="text"/>	<input type="checkbox"/> Cat_A
<b>Expected Date</b> <input type="text" value="2016-12-30 14:40"/>	<b>insert size</b> <input type="text"/>	<input type="checkbox"/> Cat_B
<b>Acquisition Date</b> <input type="text" value="2016-12-24 09:40"/>	<b>vector</b> <input type="text"/>	<input type="checkbox"/> Cat_D
<b>JobType</b> <input type="text" value="Select value"/>	<b>Date</b> <input type="text"/>	<input type="checkbox"/> Drinking water
		<input type="button" value="Save"/> <input type="button" value="Cancel"/>

[Get results](#)   [Submit order](#)   [Lang ▾](#)   [Logout](#)

Job data

Sample data



## 7.1 Config.ini

You can configure several options in the LSMRemote according to your requirements.

The new option for config.ini now allows you to configure options using the LSMRemote config.ini feature.

All the options that allow you to set the LSMRemote are mentioned in the Knowledge Base

 KB: [how to set options in config.ini.](#)


### Warning

Only a superadmin can access the config.ini options

## 7.2 Provider Portal


Provider portal allows the requester/Provider the portal allows yo to submit , track jobs, see the patient CoC, results et.

You can integrate the remote portal in your website. You can configure various options in LSMRemote.

To have more information about the portal please read the knowledgebase  KB: [LSMRemote & related options.](#)

### Registration:

In scenarios where the **LabCollector users are themselves requester/provider**, etc. then they can register themselves and will be added automatically as a requester and as a user in LSM.

To have more information on registration please read the knowledgebase  KB: [LSMRemote Registeration.](#)

### Warning


The requesters generated from LSMRemote need to be validated in LSM. Please see the link to the above knowledgebase to see the process.

### Sign In:

When you login the provider portal, the provider will be able to view all the jobs and follow them.

There are various sections in the provider portal like Get results, submit order , etc that are explain in below section.

You can even configure your LSMRemote by using config.ini.

To have more information on how to configure LSMRmote using config.ini please read the knowledgebase  KB: [LSMRemote Config.ini.](#)

### Warning

Configuration can be only done by the superadmin.

**\*Below is an image from already configured instance when you sign in. You might not see the exact same thing in your instance.**

Get results   Submit order   Lang ▾   Wanda Wong ▾


Date  All requesters ▾   Search  Keyword on  Sample ▾

RT-qPCR COVID 19  Nothing selected ▾   
 Param Multi Test  None selected ▾   
 test  Nothing selected ▾

ID	Job Number	Case Record	Received	Status	Priority	Job Info	Released	Results	Options
1368	JOB-956	U130 / 03-Feb-2016	06-Sep-2021 14:59:46	In progress	Routine	1 / 1			
1367	JOB-955	Test-GH001 / 25-Mar-2021	03-Sep-2021 12:09:12	In progress	Routine	0 / 4	03-Sep-2021 12:09:30		
1366	JOB-954	Anderson, Samantha / 31-May-1993		Pending	Routine	0 / 1			
1365	JOB-953	U311 / 07-Apr-2021	02-Sep-2021 15:32:40	Finished	Routine	1 / 1	02-Sep-2021 16:20:55		
1364	JOB-952	U311 / 07-Apr-2021	02-Sep-2021 15:20:23	Canceled	Routine	0 / 1			
1363	JOB-951	U311 / 07-Apr-2021	02-Sep-2021 14:53:51	Finished	Routine	1 / 1	02-Sep-2021 14:55:23		
1362	JOB-950	U311 / 07-Apr-2021	02-Sep-2021 14:57:47	Finished	Routine	1 / 1	03-Sep-2021 10:50:23		

### 7.2.1 Get results

The get results option will bring you to the page below where you can filter and track all your jobs.

To have more information about the filters in the portal please read the knowledgebase 

KB: [LSMRemote search](#).

**\*Below is an image from already configured instance. You might not see the exact same thing in your instance.**

Date  All requesters  Search  on

RT-qPCR COVID 19  Param Multi Test  test


ID	Job Number	Case Record	Received	Status	Priority	Job Info	Released	Results	Options
1368	JOB-956	U130 / 03-Feb-2016	06-Sep-2021 14:59:46	In progress	Routine	1 / 1			
1367	JOB-955	Test-GH001 / 25-Mar-2021	03-Sep-2021 12:09:12	In progress	Routine	0 / 4	03-Sep-2021 12:09:30		
1366	JOB-954	Anderson, Samantha / 31-May-1993		Pending	Routine	0 / 1			
1365	JOB-953	U311 / 07-Apr-2021	02-Sep-2021 15:32:40	Finished	Routine	1 / 1	02-Sep-2021 16:20:55		
1364	JOB-952	U311 / 07-Apr-2021	02-Sep-2021 15:20:23	Canceled	Routine	0 / 1			
1363	JOB-951	U311 / 07-Apr-2021	02-Sep-2021 14:53:51	Finished	Routine	1 / 1	02-Sep-2021 14:55:23		
1362	JOB-950	U311 / 07-Apr-2021	02-Sep-2021 14:57:47	Finished	Routine	1 / 1	03-Sep-2021 10:50:23		
1361	JOB-949	U474 / 13-Sep-2021	02-Sep-2021 13:51:28	Finished	Routine	1 / 1	02-Sep-2021 13:52:22		
1360	JOB-948	U471		Pre-Order	Routine	0 / 0			
1359	JOB-947	U469		Pre-Order	Urgent	0 / 0			

Previous      ...  Next

Show  entries

### 7.2.2 Submit order


Submit order option allows you to create jobs. The fields in the submit order form can be configured with the help of Config.ini option and using the LSM add-on.

To have more information about how to submit job using LSMRemote please read the knowledgebase  [KB: LSMRemote submit job.](#)

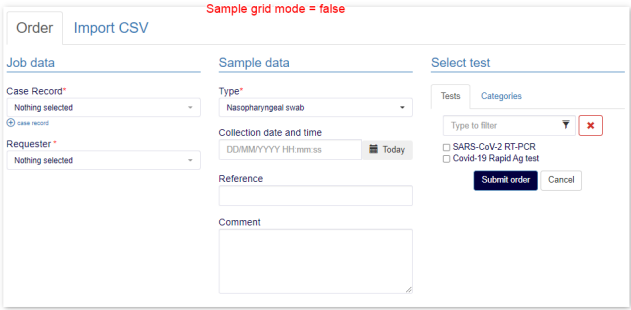
You can have a view of submit job depending upon the if you have setting in config.ini for single samples (Sample grid mode = false) or multiple samples (Sample grid mode = true).

The main tabs that you will see in both scenarios below are:

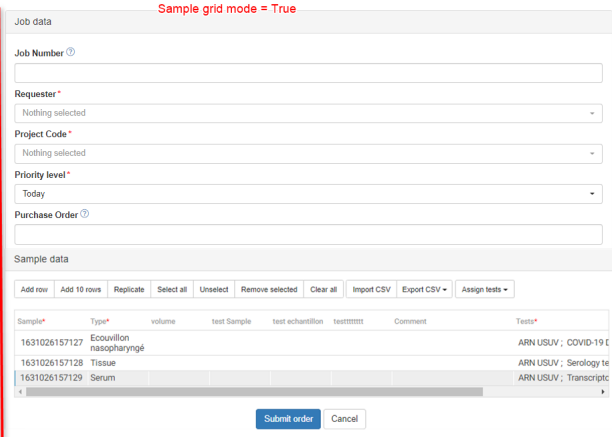
1. Job data
2. Sample data
3. Test data

 **Note**  
 You will only see the "Import CSV" option for the single sample mode.

Single Sample mode  
Sample grid mode = false

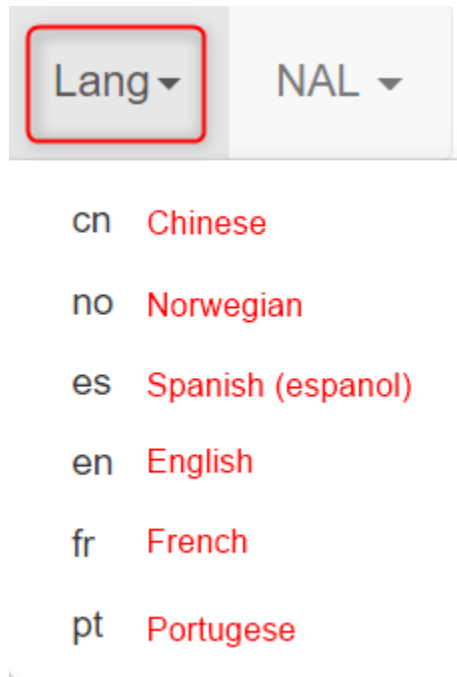


Multiple Sample mode  
Sample grid mode = True



### 7.2.3 Lang

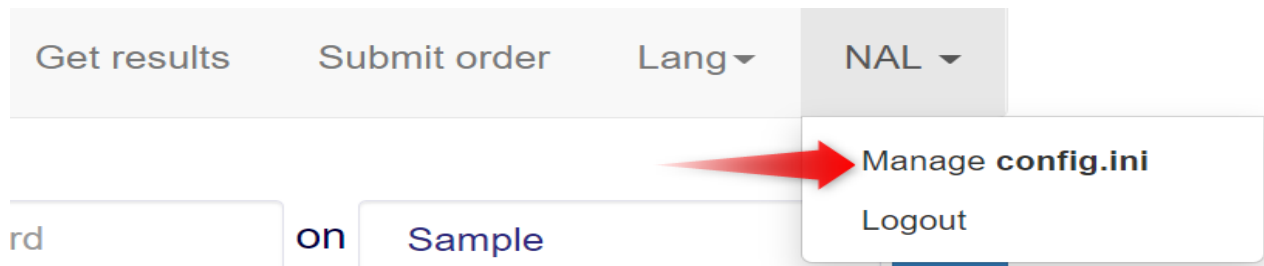
This option allows you to set the language of LSMRemote.



### 7.2.4 Profile

The profile section will show your name and provide you with login or logout option.

If you have logged in as super admin then you will also see the option to manage option in config.ini that allows you to configure the LSMRemote.



### 7.2.5 Search in LSMRemote

LSMRemote allows various options to search samples, sample type, jobs, comment, project code, etc.


You can also create custom filters as well.

Please read the Knowledge Base  KB: [how to search using LSM.](#)



## 7.3 Direct Report Access

This part of the LSMRemote provides access to the patients to be able to see their test result report or to be able to register their kits, or do pre-registrations with them.

Please read the Knowledge Base  KB: [how to use the token to access the test result report.](#)

## 7.4 Patient pre-registration

Patient registration allows the patients to enter themselves with the respective requester before going to give the sample for testing.

After registration you receive a QR code that you can take while going to give the sample.

Using the QR-code, all their details will be automatically pre-loaded, saving time and making the sample collection process more faster.

Please read the Knowledge Base  KB: [how to do patient registration using LSMRemote.](#)

## 7.5 Job pre-registration

Job pre-registration allows patients to not only registration their details but also fill the form the lab offers. Generally this form can contain certain queries about past health history, or previous infections, insurance details, etc related to the patient.

After registration you receive a QR code that you can take while going to give the sample.

When you go to sample collection center, all you have to do is provide your QR code and the providers can pull up the information. You give your sample, and the process is done without loosing any time.

Please read the Knowledge Base  KB: [how to do job pre-registration using LSMRemote.](#)

## 7.6 Kit activation

The kit activation allows the patients who purchase kits online or with pharmacy to activate them using LSMRemote. These kits belong to the lab or are registered with the lab that use the LSM and LSMRemote.

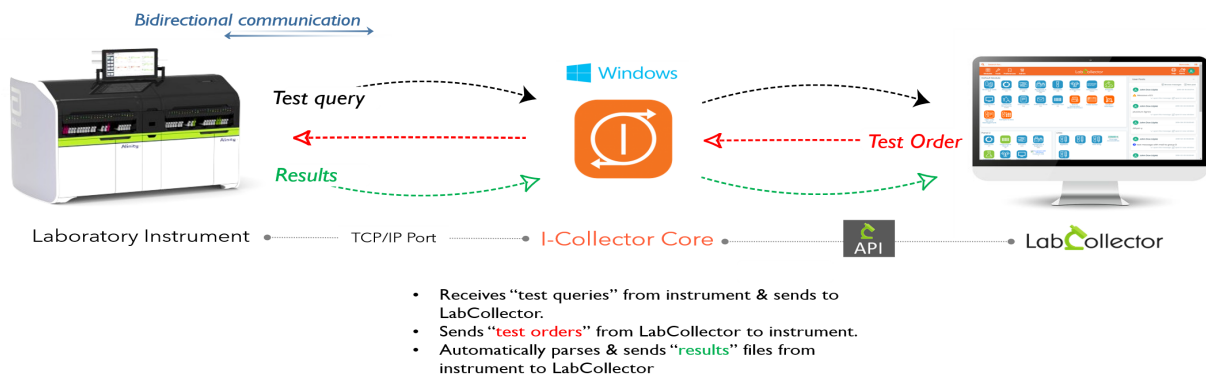
Please read the Knowledge Base  KB: [how activate kit using LSMRemote.](#)

## 8. I-Collector & LSM Communication protocols

The LabCollector **LSM** add-on can be associated with i-collector for direct communication with lab equipment.

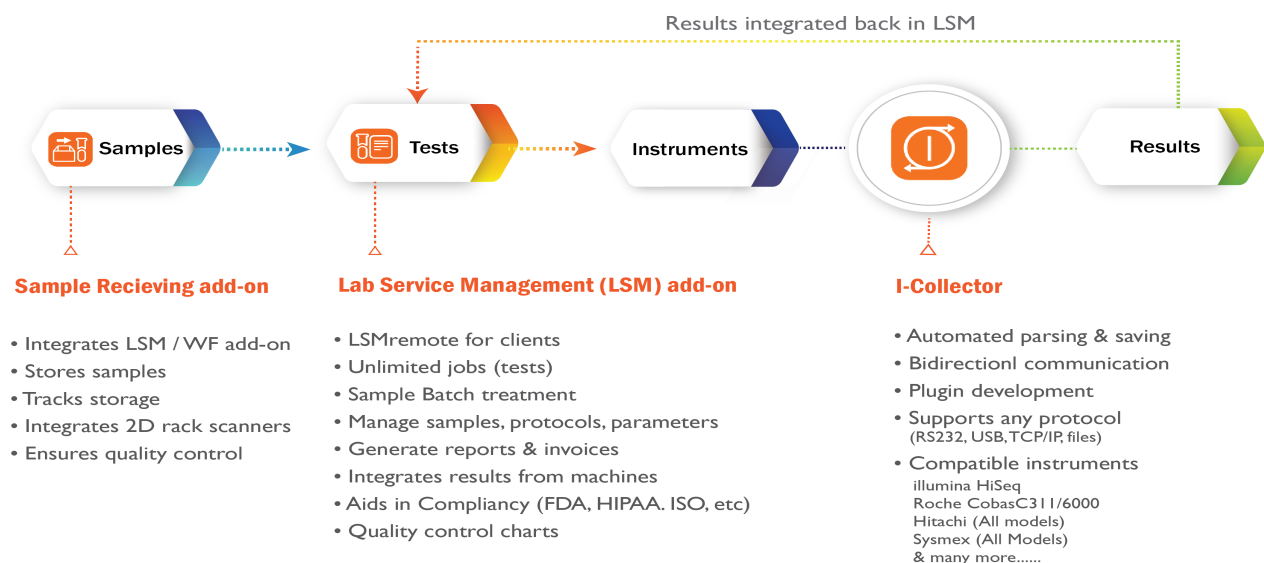
This will allow a selection of some or all information from a test to be entered automatically with minimal manual data entry.

Please read the  [Blog: I-Collector.](#)

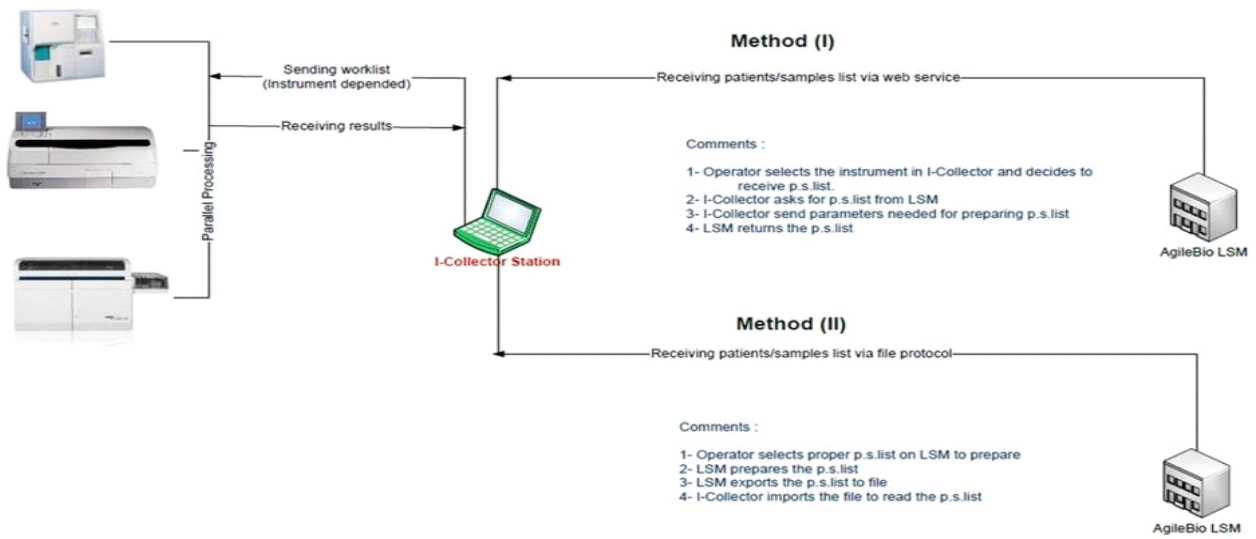


You can integrate the lab instruments and with the help of interpretation logics you can automate to send the results directly in the LSM. Below is the simple general workflow, of how one can use other add-ons like sample receiving, I-Collector with LSM to automate result input.

Please read the  [Blog: Automation.](#)



Here is an example:

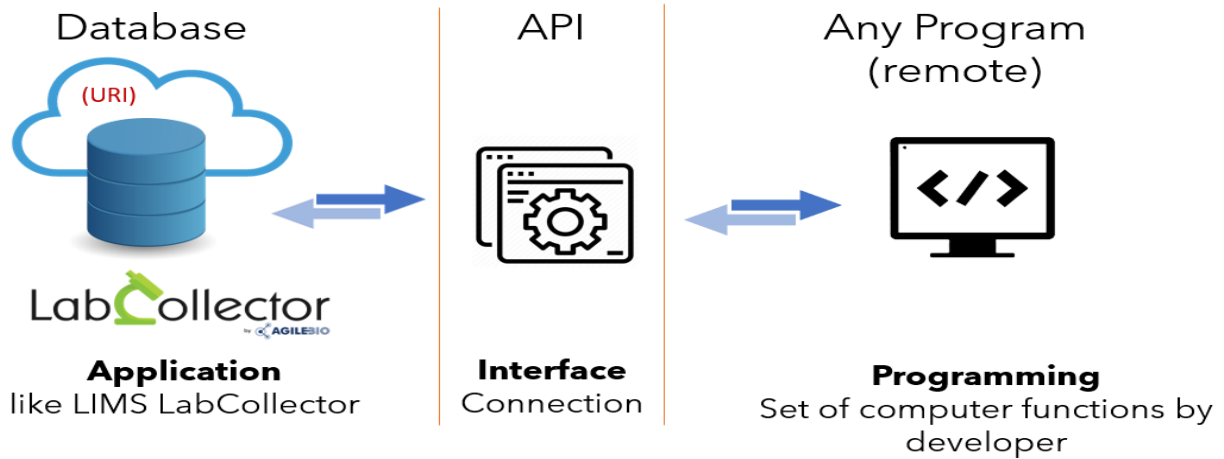


Some equipment is already compatible with LabCollector. Most equipment from common suppliers can be readily connected. Contact us for details on your needs.

The LabCollector API contains many features that allow connections to websites or other systems.

## 9. API

API is the Application Programming Interface a computing interface that defines interactions between multiple software intermediaries.



LabCollector & LSM add-on can also utilize this API technology to connect 3rd party software.

Please read the knowledgebase 🎓 KB: [API in LabCollector.](#)

Please read the knowledgebase 🎓 KB: [LSM API.](#)

## 10. Upgrading & Updating

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To update or upgrade the **LSM Add-on** module, just download it from our website

([www.labcollector.com](http://www.labcollector.com)). Then, unzip the folder and paste files in the following folder:

*Programs\AgileBio\LabCollector\www\lab\*\extra\_modules\lsm*

\*The name of this folder is the laboratory nickname chosen during LabCollector installation.

As a best practice we recommend making a LabCollector backup prior to performing an update or upgrade. Note that instances hosted with AgileBio are backed up regularly.