

LabCollector / LSM API v2

Content

LabCollector / LSM API v2	1
1. Available methods in LSM web service	3
1.1. GET.....	3
1.1.1. Jobs.....	3
1.1.2. Equipments.....	3
1.1.3. Assays	3
1.1.4. Categories.....	3
1.1.5. Sample Types.....	3
1.1.6. Parameters	3
1.1.7. Requesters.....	4
1.1.8. Invoices.....	4
1.1.9. Batches	4
1.1.10. Token	4
1.1.11. Send token by email.....	4
1.2. POST	5
1.2.1. Create requesters.....	5
1.2.2. Create job	5
1.2.3. Append samples to existent job.....	5
1.2.4. Save results.....	6
1.3. PUT	6
1.3.1. Upload files.....	6
1.3.2. Link sample to module	6
1.3.3. Update sample	6
1.3.4. Update sample status.....	7
1.3.5. Start a batch	7
1.3.6. Update job.....	7
1.3.7. Accept/Reject a job	8
2. Authentication.....	8
3. Tool.....	8
4. Screenshots	8
4.1. GET.....	8

4.1.1. Get list of jobs in progress	8
4.1.2. Get list of samples received in a period	9
4.1.3. Get list of requesters	9
4.1.4. Get token	9
4.1.5. Send token by email	10
4.2. POST	10
4.2.1. Create jobs.....	10
4.2.3. Create requesters	11
4.3.PUT	12
4.3.1. Update sample using id	12
4.3.2. Update sample using name	12
4.3.3. Update sample status.....	13

1. Available methods in LSM web service

1.1. GET

1.1.1. Jobs

- Method: GET
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2)
- Optional parameters: datefrom, dateto, jobid (id or barcode), sampleid (id or barcode), assayid, status (by default only job in progress are returned, use status=all for view all jobs), samplename, samplestatus, samplestatusdatefrom, samplestatusdateto, assaystatus, assaystatusdatefrom, assaystatusdateto, startedon, completedon, validatedon, batch, jobstatus
- Search by job parameter, sample parameter or assay parameter: parameterid, parametervalue

1.1.2. Equipments

- Method: GET
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2&getEquipmentList=1](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2&getEquipmentList=1)
- Optional parameters: id

1.1.3. Assays

- Method: GET
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2&getAssayList=1](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2&getAssayList=1)
- Optional parameters: id

1.1.4. Categories

- Method: GET
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2&getCategoryList=1](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2&getCategoryList=1)
- Optional parameters: id

1.1.5. Sample Types

- Method: GET
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2&getSampleTypeList=1](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2&getSampleTypeList=1)
- Optional parameters: id

1.1.6. Parameters

- Method: GET
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2&getParameterList=1](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2&getParameterList=1)
- Optional parameters: id, level (level=J returns job parameters, level=S returns sample parameters and level=A returns test parameters)

1.1.7. Requesters

- Method: GET
- URL:
[http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2&getRequesterList=1](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2&getRequesterList=1)
- Optional parameters: id

1.1.8. Invoices

- Method: GET
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2&getInvoiceList=1](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2&getInvoiceList=1)
- Optional parameters: id, datefrom, dateto, status, format (CSV | IIF), jobid, jobnumber

1.1.9. Batches

- Method: GET
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2&getBatchList=1](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2&getBatchList=1)
- Optional parameters: batch, status (notfinished –default– | all | assigned | started | completed | approved)

1.1.10. Token

- Method: GET
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2&getToken](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2&getToken)
- Required parameters: jobid or sampleid

1.1.11. Send token by email

- Method: GET
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2&sendToken](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2&sendToken)
- Required parameters: jobid or sampleid

1.2. POST

1.2.1. Create requesters

- Method: POST
- URL: `http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2`
- Required parameter: create
- Example of *create*:

```
<requesters>
  <requester code='R01' name='Requester from API' taxNumber='12346789'>
    <billing address='One street' city='City' state='State' country='US' zip='99999'
phone='555123123' fax='555123123' contactFirstName='Jane' contactLastName='Doe'
contactEmail='jane@gmail.com' ></billing>
    <shipping address='One street' city='City' state='State' country='US' zip='99999'
phone='555123123' fax='555123123' contactFirstName='Jane' contactLastName='Doe'
contactEmail='jane@gmail.com' ></shipping>
  </requester>
</requesters>
```

1.2.2. Create job

- Method: POST
- URL: `http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2`
- Required parameter: create
- Example of *create*:

```
<jobs>
  <job number='job-api-006' requester='21' project="109">
    <parameter id='242' value='text'></parameter>
    <sample name='job-api-006-sample1' type='1' comment='notes1'>
      <parameter id='247' value='Female'></parameter>
      <assay id='1'></assay>
      <assay id='2'></assay>
    </sample>
    <sample name='job-api-006-sample2' type='1' comment='notes2'>
      <parameter id='247' value='Male'></parameter>
      <assay id='1'></assay>
      <assay id='2'></assay>
    </sample>
  </job>
  <job number='job-api-007' requester='21' project="Test new project code">
    <parameter id='242' value='text'></parameter>
    <sample name='job-api-007-sample1' type='1' comment='notes1'>
      <parameter id='247' value='Female'></parameter>
      <assay id='1'></assay>
      <assay id='2'></assay>
    </sample>
    <sample name='job-api-007-sample2' type='1' comment='notes2'>
      <parameter id='247' value='Male'></parameter>
      <assay id='1'></assay>
      <assay id='2'></assay>
    </sample>
  </job>
</jobs>
```

Multiple jobs and multiple samples are allowed.

Attribute Requester supports id or text.

Attribute project supports id or text

1.2.3. Append samples to existent job

Use the same notation of 1.2.2 Create job adding an extra parameter *appendsamplesifjobexist = 1*.

JobNumber must match and be unique. If the job doesn't exist a new job will be created. If job exists but is already completed it returns an error message.

1.2.4. Save results

- Method: POST
- URL: `http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2`
- Required parameter: result
- Example of *result*:

```
<assays><assay uniqueid="1223"><result><parameter id="34" unit="mg" value="123"/><parameter id="35" unit="ml" value="456"/></result></assay></assays>
```

1.3. PUT

1.3.1. Upload files

- Method: PUT
- URL: `http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2`
- Parameters:
 - upload (required)
 - file (required)
 - uniqueid (required): identifier of job-sample-assay
 - parameter (optional): supports parameter id or parameter name
- Response: OK 200

1.3.2. Link sample to module

- Method: PUT
- URL: `http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2`
- Parameters:
 - sampleid (required): identifier of sample (sampleid or barcode)
 - OR
 - samplename (required): sample name
 - module (required): module name or short name
 - recordid (required): identifier of record in module
- Response: OK 200

1.3.3. Update sample

- Method: PUT
- URL: `http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2`
- Parameters:
 - sampleid (required): identifier of sample (sample id or barcode). Supports multiple ids separated by comma
 - OR
 - samplename (required): sample name
 - shipmentstatus(optional): Use 0 Submitted, 1 In transit, 2 Received, 3 Returned (supports number of label)

- name (optional): new sample name
- type (optional): new sample type
- batch (optional): batch to be assigned to tests
- Any sample parameter using parameter label or parameter id

1.3.4. Update sample status

- Method: PUT
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2)
- Parameters:
 - sampleid (required): identifier of sample (sampleid or barcode). Supports multiple ids separated by commaOR
 - samplename (required): sample name
 - status (optional): started | completed | approved
 - startedby (optional): valid User ID in LSM. If status is set to 'started' and this parameter is not received, the default operator selected in API settings will be used instead
 - startedon (optional): datetime (YYYY-MM-DD hh:mm:ss). If status is set to 'started' or 'startedby' is set, and this parameter is not received, current date will be used
 - completedby (optional): valid User ID in LSM. If status is set to 'completed' and this parameter is not received, the default operator selected in API settings will be used instead
 - completedon (optional): datetime (YYYY-MM-DD hh:mm:ss).). If status is set to 'started' or 'startedby' is set and this parameter is not received, current date will be used
 - validatedby (optional): valid User ID in LSM. If status is set to 'approved' and this parameter is not received, the default operator selected in API settings will be used instead
 - validatedon (optional): datetime (YYYY-MM-DD hh:mm:ss).). If status is set to 'approved' or 'validatedby' is set and this parameter is not received, current date will be used
 - assayid (optional): if it is set, the update is applied only to this assay
- Response: OK 200

1.3.5. Start a batch

- Method: PUT
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2)
- Parameters:
 - batch (required): batch name
 - startedby (required): user id valid in LSM (or 1 for super admin)
 - startedon (optional): if not set, current date is used

1.3.6. Update job

- Method: PUT
- URL: [http://\[my_labcollector_url\]/extra_modules/lsm/webservice/index.php?v=2](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2)
- Parameters:
 - jobid (required): identifier of job (job id or barcode). Supports multiple ids separated by comma
 - Any job parameter using parameter label or parameter id

1.3.7. Accept/Reject a job

- Method: PUT
- URL: `http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2`
- Parameters:
 - jobid (required): identifier of job (job id or barcode). Supports multiple ids separated by comma
 - acceptance (required): accept | reject | hold
 - comment (optional): a text comment to the acceptance/rejection
 - sendnotification (optional): 0 | 1 (send notification by email)

2. Authentication

One HEADER parameter is mandatory:

-Key: X-LC-APP-Auth

-Value: The token you can view/generate in LabCollector -> Admin -> Others -> Setup -> Web services API

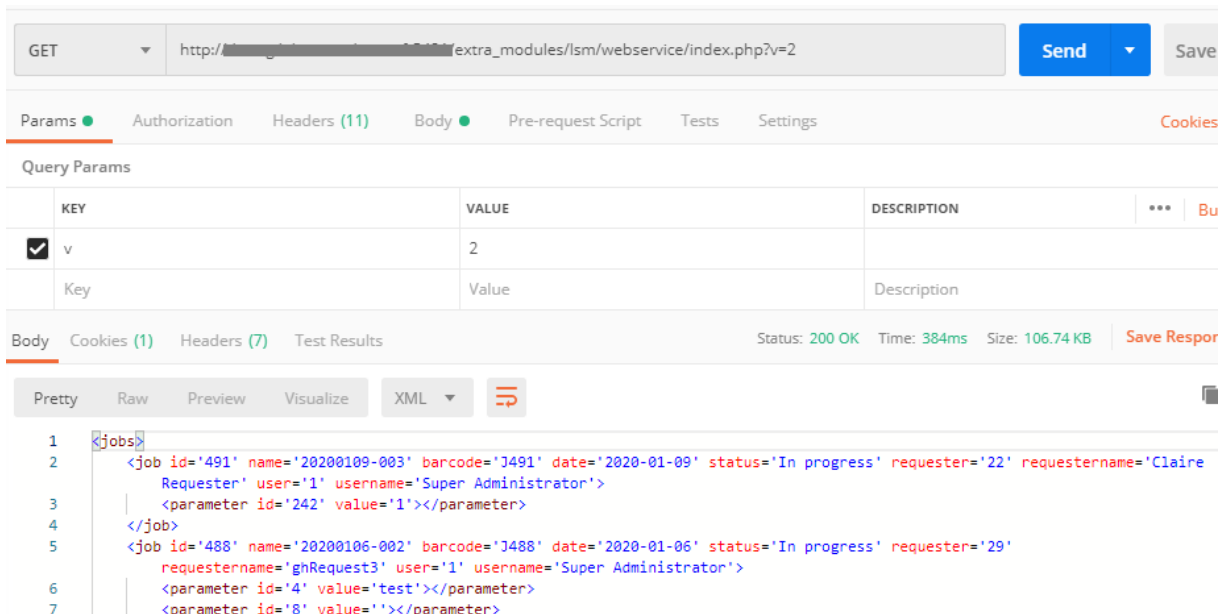
3. Tool

You can try to retrieve data from or send data to the API with some software app as Postman (<https://www.getpostman.com/>).

4. Screenshots

4.1. GET

4.1.1. Get list of jobs in progress



The screenshot shows a Postman interface with a GET request to `http://[redacted]extra_modules/lsm/webservice/index.php?v=2`. The response is a JSON array of jobs in progress. The response status is 200 OK, with a time of 384ms and a size of 106.74 KB.

```

1 <jobs>
2   <job id='491' name='20200109-003' barcode='J491' date='2020-01-09' status='In progress' requester='22' requestername='Claire
   Requester' user='1' username='Super Administrator'>
3     <parameter id='242' value='1'></parameter>
4   </job>
5   <job id='488' name='20200106-002' barcode='J488' date='2020-01-06' status='In progress' requester='29'
   requestername='ghRequest3' user='1' username='Super Administrator'>
6     <parameter id='4' value='test'></parameter>
7     <parameter id='8' value=''></parameter>

```


4.1.2. Get list of samples received in a period

GET `http://localhost/lab/extra_modules/lsm/webservice/index.php?v=2&status=all&samplestatus=Received&samplestatusdatefrom=2019-10-08&samplestatusdateto=2019-10-10`

Params Authorization Headers (10) Body Pre-request Script Tests Settings

Query Params

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> v	2	
<input checked="" type="checkbox"/> status	all	
<input checked="" type="checkbox"/> samplestatus	Received	
<input checked="" type="checkbox"/> samplestatusdatefrom	2019-10-08	
<input checked="" type="checkbox"/> samplestatusdateto	2019-10-10	
Key	Value	Description

Body Cookies (1) Headers (7) Test Results Status: 200 OK Time: 208ms

Pretty Raw Preview Visualize XML

```
24 <sample id='1291' name='GH-1570606628501' barcode='S1291' comment='' lc_link='' status='Received' statusdate='2019-10-09 09:59:39'>
```

4.1.3. Get list of requesters

GET `http://localhost/lab/extra_modules/lsm/webservice/index.php?v=2&getRequesterList=1`

Authorization Headers (3) Body Pre-request Script Tests

Key	Value	Description
<input checked="" type="checkbox"/> X-LC-APP-Auth	8ab3f3d1287ac10a059869f8b4660099741223398c9aa055eb5e96...	
<input checked="" type="checkbox"/> Accept	text/xml	
<input checked="" type="checkbox"/> X-LC-APP-Charset	ISO 8859-1	
New key	Value	Description

Body Cookies Headers (7) Tests

Pretty Raw Preview XML

```
1 <requesters>
2 <requester id='1' code='' name='Req1' taxNumber=''>
```

4.1.4. Get token

GET

Params Authorization **Headers (8)** Body Pre-request Script Tests Settings

Headers 7 hidden

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> X-LC-APP-Auth	4694eaa154900b300d82e87bfe5df88d722daa6151...	

Body **Cookies (1)** Headers (8) Test Results Status: 200 OK Time: 68 ms

Pretty Raw Preview Visualize XML

```
1 76AE15EA
```

4.1.5. Send token by email

GET

Params Authorization **Headers (8)** Body Pre-request Script Tests Settings

Headers 7 hidden

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> X-LC-APP-Auth	4694eaa154900b300d82e87bfe5df88d722daa6151...	

Body **Cookies (1)** Headers (8) Test Results Status: 200 OK Time: 602 ms

Pretty Raw Preview Visualize XML

```
1 |OK|
```

4.2. POST

4.2.1. Create jobs

POST

Params Authorization Headers (11) **Body** Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary GraphQL

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> create		
Key		Description

Body **Cookies (1)** Headers (7) Test Results Status: 200 OK Time: 199ms

Pretty Raw Preview Visualize XML

```
1 513
```

```
<jobs>
  <job number='job-api-006' requester='21' project='109'>
    <parameter id='242' value='text'></parameter>
    <sample name='job-api-006-sample1' type='1'
      comment='notes1'>
      <parameter id='247' value='Female'></parameter>
      <assay id='1'></assay>
      <assay id='2'></assay>
    </sample>
    <sample name='job-api-006-sample2' type='1'
      comment='notes2'>
      <parameter id='247' value='Male'></parameter>
      <assay id='1'></assay>
      <assay id='2'></assay>
    </sample>
  </job>
</jobs>
```

4.2.2. Append samples to job


POST ▼ http://localhost/labcollector-5.5/extra_modules/lsm/websevice/index.php?v=2

Params ● Authorization Headers (13) **Body** ● Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary GraphQL

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> create	<jobs> + ...	
<input checked="" type="checkbox"/> appendsamplesifjobexist	1	
Key	Value	Description

Body ● Cookies (1) Headers (12) Test Results 🌐 Status: 200 OK

Pretty Raw Preview Visualize XML ▼ 

1 100

4.2.3. Create requesters


POST ▼ http://localhost/lab/extra_modules/lsm/websevice/index.php?v=2

Authorization Headers (4) **Body** ● Pre-request Script Tests

form-data x-www-form-urlencoded raw binary

Key	Value
<input checked="" type="checkbox"/> create	<requesters> <requester code='R01' name='Requester from API' taxNumber='12346789'> <billing address='One street' city='City' state='State' country='US' zip='99999' phone='555123123' fax='555123123' contactFirstName='Jane' contactLastName='Doe' contactEmail='jane@gmail.com' ></billing> <shipping address='One street' city='City' state='State' country='US' zip='99999' phone='555123123' fax='555123123' contactFirstName='Jane' contactLastName='Doe' contactEmail='jane@gmail.com' > </shipping> </requester> </requesters>

Body ● Cookies Headers (7) Tests

Pretty Raw Preview XML ▼ 

1 8

4.3.PUT

4.3.1. Update sample using id


PUT ▼ http://[redacted]/extra_modules/lsm/webservice/index.php?v=2

Params ● Authorization Headers (11) **Body** ● Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary GraphQL

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> sampleid	1556	
<input checked="" type="checkbox"/> gender	Male	
<input checked="" type="checkbox"/> batch	baxc-0123	
Key	Value	Description

Body Cookies (1) Headers (7) Test Results Status: 200 OK Time: 182ms

Pretty Raw Preview Visualize XML ▼ 

1 OK

4.3.2. Update sample using name


PUT ▼ http://dev.agilebio.com/neosoft5421/extra_modules/lsm/webservice/index.php?v=2

Params ● Authorization Headers (11) **Body** ● Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary GraphQL

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> samplename	pr000120200204-001-010	
<input checked="" type="checkbox"/> shipmentstatus	Received	
Key	Value	Description

Body Cookies (1) Headers (7) Test Results Status: 200 OK Time: 141ms

Pretty Raw Preview Visualize XML ▼ 

1 OK

4.3.3. Update sample status


PUT ▼ http://[redacted]/extra_modules/lsm/webservice/index.php?v=2

Params ● Authorization Headers (13) **Body** ● Pre-request Script Tests Settings

none
 form-data
 x-www-form-urlencoded
 raw
 binary
 GraphQL

KEY	VALUE
<input checked="" type="checkbox"/> sampleid	56
<input checked="" type="checkbox"/> status	completed
<input checked="" type="checkbox"/> completedby	2
Key	Value

Body **Cookies (1)** Headers (11) Test Results

Pretty Raw Preview Visualize XML ▼ 

1 OK