

# LabCollector / LSM API v2

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## 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 search 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
  - jobnumber
  - requesterid
  - caserecord
  - caserecordname
  - caserecorddob
  - caserecordgender
- Additional parameters:
  - parameterid & parametervalue to search by job parameter, sample parameter or assay parameter
  - searchmode: when searching by jobnumber, samplename, caserecordname or batch: searchmode indicates the mode (startswith, endswith, contains, strict-default-)
  - samplesearch: searches by barcode (S+ID or Sample name), regarding the barcode option set in lsm>admin>setup>job and samples naming. The search is strict and supports multiple values separated by comma
  - limit: to limit number of results add limit=N, being N the max number of jobs
  - return: by default the tags returned are <job>, <sample>, <assay> and <parameter>. Omit tags or select other tags as sample report in base64 and requester uses and managers is possible using the parameter return. The list of options for this parameter is return=job,sample,assay,parameter,samplerreport,user,manager

#### 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, categoryid

### 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

### 1.1.12. Send results to external sources

- Method: GET
- URL:  
[http://\[my\\_labcollector\\_url\]/extra\\_modules/lsm/webservice/index.php?v=2&sendResults](http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2&sendResults)
- Required parameters: jobid

*Note: Send results back to external source only if the job have been created using our integration API (PWNHealth, 1Health, ORDRS, LabSoft)*

## 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
- Optional parameter: notoken (if is set option the token is not sent on job creation, although the automatic token is ON)
- 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). Supports multiple ids separated by comma
  - 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

*Note: startedby, completedby and validatedby also accepts LabCollector Contact ID if it is preceded by 'LC', example: LC58*

### 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 (optional): user id valid in LSM (or 1 for super admin).
  - startedon (optional): if not set, current date is used



*Note: startedby also accepts LabCollector Contact ID if it is preceded by 'LC', example: LC58*

### 1.3.6. Update 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
  - 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)

### 1.3.8. Order a job quoted

- 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
  - order (required): 1
  - purchase order (optional): purchase order

### 1.3.9. Update requester

- Method: PUT
- URL: `http://[my_labcollector_url]/extra_modules/lsm/webservice/index.php?v=2`
- Parameters:
  - requesterid (required): identifier of requester (requester id or code or name)
  - any requester field (optional): code, name, taxNumber, discount, company, prefix, registrationid, onPortal, reportPassword, category, **reportPreferred, notes**
  - any requester billing field (optional): billing.address, billing.city, billing.state, billing.country, billing.zip, billing.phone, billing.fax, billing.contactFirstName, billing.contactLastName, billing.contactEmail
  - any requester shipping field (optional): shipping.address, shipping.city, shipping.state, shipping.country, shipping.zip, shipping.phone, shipping.fax, shipping.contactFirstName, shipping.contactLastName, shipping.contactEmail

## 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

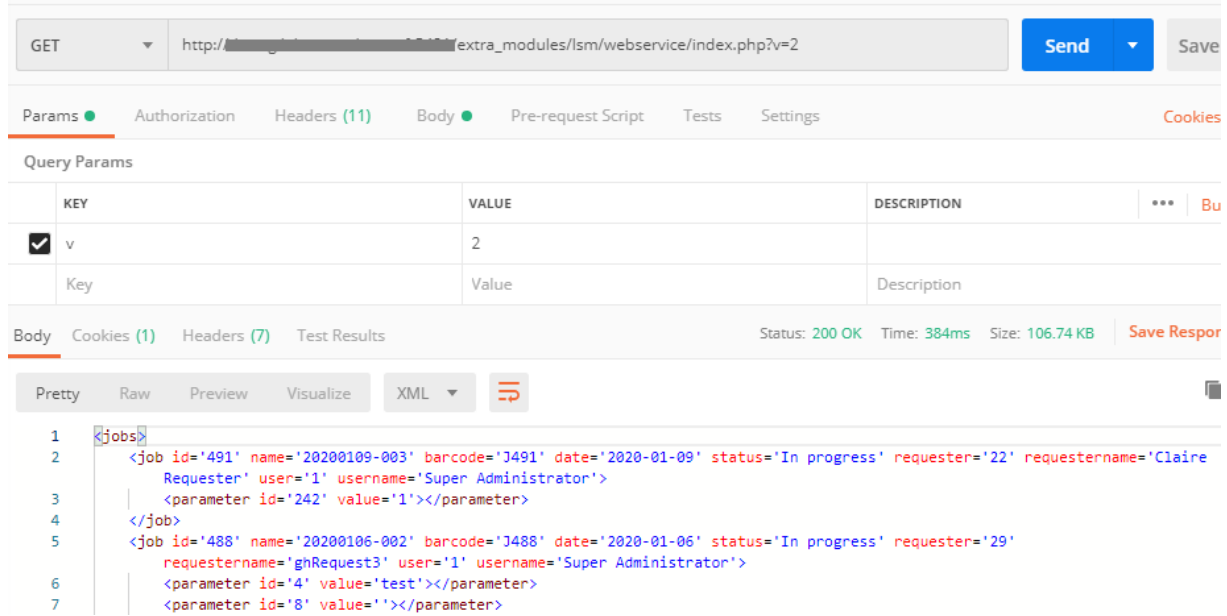
## 3. Tool

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



GET  Send Save

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

Query Params

KEY	VALUE	DESCRIPTION
<input checked="" type="checkbox"/> v	2	
Key	Value	Description

Body Cookies (1) Headers (7) Test Results Status: 200 OK Time: 384ms Size: 106.74 KB Save Respor

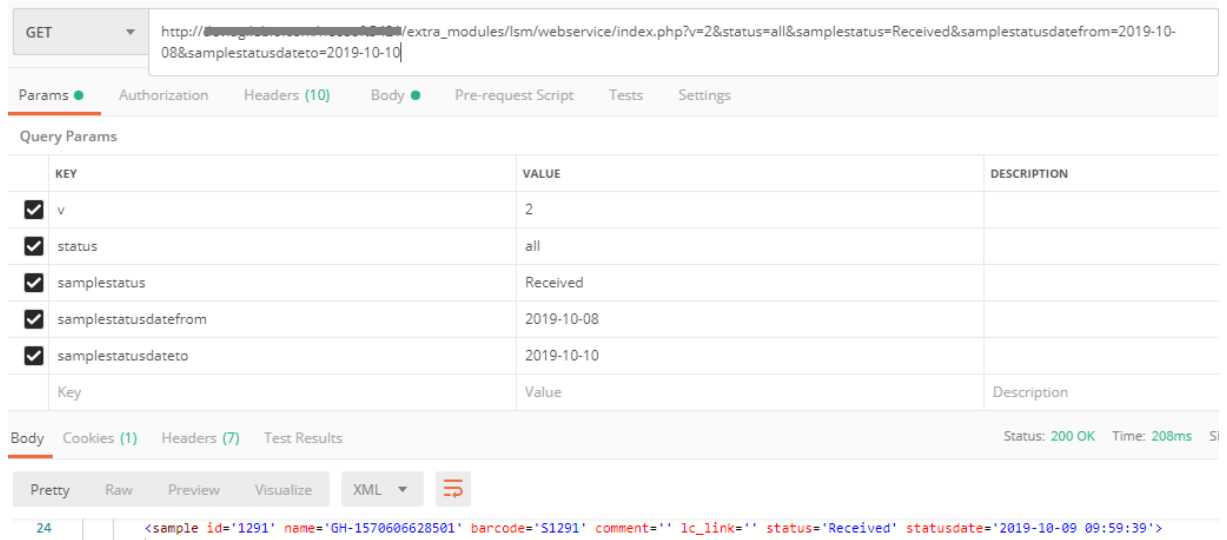
Pretty Raw Preview Visualize XML

```

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

```

#### 4.1.2. Get list of samples received in a period



GET

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 Si

Pretty Raw Preview Visualize XML

```

24 <sample id='1291' name='GH-1570606628501' barcode='S1291' comment='' ic_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  http://localhost/labcollector-6.0/extra\_modules/lsm/webservice/index.php?v=2&getToken&jobid=118

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  http://localhost/labcollector-6.0/extra\_modules/lsm/webservice/index.php?v=2&sendToken&jobid=118

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 [http://dev.agilebio.com/neosoft5421/extra\\_modules/lsm/webservice/index.php?v=2](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"/> 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> </jobs>	Description Status: 200 OK Time: 199ms

Body Cookies (1) Headers (7) Test Results

Pretty Raw Preview Visualize XML

1 513

### 4.2.2. Append samples to job

POST [http://localhost/labcollector-5.5/extra\\_modules/lsm/webservice/index.php?v=2](http://localhost/labcollector-5.5/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	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/webservice/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

## 4.3.PUT

### 4.3.1. Update sample using id


PUT  http://localhost/lab/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/websevice/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/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
<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

### 4.3.

## 4. Update requester


PUT ▼ http://[redacted]/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

<input checked="" type="checkbox"/> requesterid	52	
<input checked="" type="checkbox"/> taxNumber	1234	
<input checked="" type="checkbox"/> billing.address	rue 12	
<input checked="" type="checkbox"/> shipping.fax	9999	
<input checked="" type="checkbox"/> shipping.country	Spain	
Key	Value	Description

Body Cookies (1) Headers (8) Test Results 🌐 200 OK 83 ms 270 B

LabC Pretty Raw Preview Visualize XML ▼ 

1 OK