LIV|EX

THE FINE WINE MARKET

ABV Data API v1

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1. Purpose

To provide the API end point information and examples of the web services available for ABV Data.

2. Glossary of Terms

Term	Meaning
LWIN	LWIN - the Liv-ex Wine Identification Number – serves as a universal wine identifier for the wine trade. LWIN is a unique seven to eighteen-digit numerical code that can be used to quickly and accurately identify a product. LWIN allows wine companies to keep their preferred naming system, while introducing a new universal code.

3. Technical Standards

- Permitted users will be issued with a unique token (CLIENT_KEY) and password (CLIENT_SECRET) combination to control the access for all the web services covered under Exchange Integration.
- The web services will consume and produce both XML and JSON. The user can provide the content type in the request header. If the user does not provide any information, then the default content type will be JSON.
- The service supports ISO 8601.
- The service only supports HTTPS protocol for client and server communications.
- The API will support the following methods:
    - POST for read operation
- Pretty printing for output readability only is supported if required
- Compression for bandwidth savings are used
- Authentication mechanism will be custom based on CLIENT_KEY and CLIENT_SECRET
- The APIs will be accessible at https://api.liv-ex.com/ followed by their specific base URIs

4. Request Header

This information will be used to authenticate valid access to the REST API. Each user will have to provide the following information in the request header.

Parameter

Name	Mandatory	Description
CLIENT_KEY	Y	A valid GUID which will be unique for each user.
CLIENT_SECRET	Y	Password/Secret for the merchants CLIENT_KEY.
ACCEPT	Y	Accept header is a way for a client to specify the media type of the response content it is expecting. The values for the content type will be application/json or application/xml.

		If no/ invalid content type is found in the request, then JSON format will be used by default.
CONTENT-TYPE	Y for POST requests	Content-type is a way to specify the media type of request being sent from the client to the server. The values for the content type will be application/json or application/xml. If no/ invalid content type is found in the request, then JSON format will be used by default.

Example header

```
CLIENT_KEY: 12A34BC56-DE7F-89G0-H1J2345K678L
CLIENT_SECRET: dummy_password
ACCEPT: application/json
CONTENT-TYPE: application/json
```

Invalid header (JSON response)

```
{
    "status": "Unauthorized",
    "httpCode": "401",
    "message": "Unauthorized",
    "internalErrorCode": null,
    "apiInfo": {
        "version": "1.0",
        "timestamp": 1554364615297,
        "provider": "Liv-ex"
    }
}
```

Invalid header (XML response)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Response xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="https://aby-qa-api.liv-ex.com/v1 https://aby-qa-api.liv-
ex.com/schema/v1/services.xsd">
    <Status>Unauthorized</Status>
    <HttpCode>401</HttpCode>
    <Message>Unauthorized</Message>
    <InternalErrorCode xsi:nil="true"/>
    <ApiInfo>
        <Version>1.0</Version>
        <Timestamp>2019-04-04T12:02:37.092+01:00</Timestamp>
        <Provider>Liv-ex</Provider>
    </ApiInfo>
</Response>
```

5. API Listing

5.1 ABV Data service (POST method)

Description

This service allows users to request alcohol values for a specified wine and vintage combination (LWIN11).

Base URI

/abv/data/v1/abvData

Request Parameters

Name	Mandatory	Description
lwin	Y	LWIN11 code. Only one value is permitted per request **Type:** 11-digit integer **Example**: 10118721995

Sample Request Body

JSON Request

```
{
"abvData": {
"lwin": "10071011800"
}
}
```

XML Request

```
<abvDataRequest>
<abvData>
<lwin>10071011800</lwin>
</abvData>
</abvDataRequest>
```

Sample Response Body

The abvData service will respond with HTTP Code 200 OK in a successful response.

Response parameters

Name	Description
lwin	LWIN11 code of product **Type:** alphanumeric **Example:** "12345672008"
alcoholValue	Alcohol value for the given wine and vintage. **Type:** alphanumeric **Example**: "13.5"
isVerified	Indicates whether the alcohol value provided was verified by Liv-ex warehouse team. Physically verified alcohol values will have isVerified = true. **Type:** alphanumeric **Example:** "true"
lastUpdateDate	**Type:** alphanumeric, ISO 8601. Epoch time if JSON **Example (JSON):** 1549537950898 **Example (XML):** 2019-02-07T11:12:30

alcoholValueFlag	Internal Liv-ex flag, please ignore values in the API response **Type:** integer

LWIN information.

Successful responses contain an "lwinStatus" element after the API information element ("apiInfo") and before the main body of the response. This states:

1. inputLwin – the LWIN codes requested
2. status – the status of the LWIN requested ('live' or 'combined')
3. combinedReference – if combined the actual live LWIN

JSON Response

The response is sent per request.

```
{
    "status": "OK",
    "httpCode": "200",
    "message": "Request completed successfully",
    "internalErrorCode": "R001",
    "apiInfo": {
        "version": "1.0",
        "timestamp": 1594038520239,
        "provider": "Liv-ex"
    },
    "lwinStatus": {
        "inputLwin": "1007101",
        "status": "combined",
        "combineReference": "1005992"
    },
    "abvData": {
        "lwin": "10059921800",
        "alcoholValue": "29.9",
        "isVerified": "true",
        "lastUpdateDate": 1593444778000,
        "alcoholValueFlag": 0
    },
    "errors": null
}
```

Invalid JSON response

```
{
    "status": "OK",
    "httpCode": "200",
    "message": "Request completed successfully",
    "internalErrorCode": "R001",
    "apiInfo": {
        "version": "1.0",
        "timestamp": 1594039037941,
        "provider": "Liv-ex"
    },
    "abvData": {
        "lwin": ""
    },
    "errors": {
        "error": [
            {
```

```
                "code": "V000",
                "message": "Mandatory field missing"
            }
        ]
    }
}
```

XML Response

The response is sent per request.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<abvDataResponse>
    <Status>OK</Status>
    <HttpCode>200</HttpCode>
    <Message>Request completed successfully</Message>
    <InternalErrorCode>R001</InternalErrorCode>
    <ApiInfo>
        <Version>1.0</Version>
        <Timestamp>2020-07-06T12:39:30.624Z</Timestamp>
        <Provider>Liv-ex</Provider>
    </ApiInfo>
    <lwinStatus>
        <inputLwin>1007101</inputLwin>
        <status>combined</status>
        <combineReference>1005992</combineReference>
    </lwinStatus>
    <abvData>
        <lwin>10059921800</lwin>
        <alcoholValue>29.9</alcoholValue>
        <isVerified>true</isVerified>
        <lastUpdateDate>2020-06-29T15:32:58Z</lastUpdateDate>
        <alcoholValueFlag>0</alcoholValueFlag>
    </abvData>
    <errors xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true"/>
</abvDataResponse>
```

Invalid XML Response

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<abvDataRequest>
    <Status>OK</Status>
    <HttpCode>200</HttpCode>
    <Message>Request completed successfully</Message>
    <InternalErrorCode>R001</InternalErrorCode>
    <ApiInfo>
        <Version>1.0</Version>
        <Timestamp>2020-07-06T12:39:57.671Z</Timestamp>
        <Provider>Liv-ex</Provider>
    </ApiInfo>
    <abvData>
        <lwin></lwin>
    </abvData>
    <errors>
        <error>
            <code>V000</code>
            <message>Mandatory field missing</message>
        </error>
    </errors>
</abvDataRequest>
```

6. Response Codes

This section describes the response codes that will be returned by the Exchange Integration services.

Code	Message
R000	Request was unsuccessful
R001	Request completed successfully
R002	Request partially completed

6.1 Request validation error codes

Code	Message
V000	("Mandatory field missing")
V006	("Invalid LWIN number.")
V035	("No records found")

6.2 HTTP Status codes

HTTP defines a bunch of meaningful status codes that can be returned from our API. These can be leveraged to help our API Merchants/consumers route their responses accordingly:

Code	Message
200 OK	Response to a successful GET, POST, PUT, DELETE. Can also be used for a POST that doesn't result in a creation.
201 Created	Response to a POST that results in a creation.
202 Accepted	The request has been accepted and will be processed later. It is a classic answer to asynchronous calls (for better UX or performances).
204 No Content	Response to a successful request that won't be returning a body (like a DELETE request)
400 Bad Request	The request is malformed, such as if the body does not parse
401 Unauthorized	When no and/or invalid authentication details are provided. Can also be used to trigger an auth popup if API is used from a browser
403 Forbidden	When authentication succeeded but authenticated user doesn't have access to the resource
404 Not Found	When a non-existent resource is requested
405 Method Not Allowed	When an HTTP method is being requested that isn't allowed for the authenticated user

406 Not Acceptable	Nothing matches the Accept-* Header of the request. As an example, you ask for an XML formatted resource, but it is only available as JSON.
409 Conflict	Indicates one or more supplied parameters are triggering a validation error. A relevant TR code should be returned in the response.
410 Gone	Indicates that the resource at this end point is no longer available. Useful as a blanket response for old API versions
415 Unsupported Media Type	If incorrect content type was provided as part of the request
422 Unprocessable Entity	Used for validation errors. Should be used if the server cannot process the entity, e.g. if an image cannot be formatted or mandatory fields are missing in the payload.
429 Too Many Requests	When a request is rejected due to rate limiting
500 Internal Server Error	The general catch-all error when the server-side throws an exception. The request may be correct, but an execution problem has been encountered at our end.