



# *Book Industry Communication*

## **BIC Realtime for Libraries Web Services API Standards Retrieve Order List**

Version 1.0, 3 September 2019

**This document:** [https://www.bic.org.uk/files/pdfs/API/BIC Realtime for Libraries - Retrieve Order List - Version 1.0.pdf](https://www.bic.org.uk/files/pdfs/API/BIC%20Realtime%20for%20Libraries%20-%20Retrieve%20Order%20List%20-%20Version%201.0.pdf)

**XML schema:** [https://www.bic.org.uk/files/pdfs/API/BICLWSOrderList\\_V1.0.xsd](https://www.bic.org.uk/files/pdfs/API/BICLWSOrderList_V1.0.xsd)

**WSDL file:** [https://www.bic.org.uk/files/pdfs/API/BICLWSOrderListSOAP\\_V1.0.wsdl](https://www.bic.org.uk/files/pdfs/API/BICLWSOrderListSOAP_V1.0.wsdl)

**XML namespace:** <http://www.bic.org.uk/librarywebservice/orderList>

**Next review date:** 1 October 2021

This document specifies in human-readable form the Request and Response formats for the *BIC Realtime for Libraries* Retrieve Order List API.

The use of this document is subject to license terms and conditions that can be found at: <https://www.bic.org.uk/files/bicstandardslicence.pdf>

A Retrieve Order List Request may be implemented using either SOAP or the basic HTTPS protocol<sup>1</sup> and POST method. The payload of a P&A Request may be formatted either as an XML document or as an equivalent JSON document.

The same Response format options (payload in XML or JSON) will apply to both basic HTTP and SOAP exchanges.

The complete specification of the Retrieve Order List Request/Response web service includes two machine-readable resources that are to be used by implementers in conjunction with this document:

- a WSDL Definition for the SOAP protocol version of the web service
- an XML Schema for Requests and Response payloads in XML format.

It is strongly recommended that SOAP client implementations of this web service be constructed using the BIC WSDL Definitions as a starting point, as this will promote interoperability between SOAP client and server implementations. In some development environments it may be easier to implement a SOAP server without using the BIC WSDL Definitions, but in this case care must be taken to ensure that the WSDL Definitions that describe the actual implementation is functionally equivalent to the BIC WSDL Definitions.

### **Business requirements**

There is a need for library buyers, including EDI users, to ensure that they are aware of all orders received and not yet fulfilled by a particular supplier. This web service enables a buyer to retrieve a list of orders, selected by date-of-issue range. Having retrieved such a list, a buyer may then follow up individual orders using other web services or by manual enquiry.

This service will also enable an aggregation service to reconcile their system with those of their data suppliers, to check for missing documents and changes made outside their system.

---

<sup>1</sup> Throughout the term 'HTTPS protocol' is to be interpreted as a secure internet protocol that is implemented either at the application layer (i.e. HTTPS) or at the transport layer (e.g. SSL/TLS).

## RETRIEVE ORDER LIST – REQUEST

Requests using SOAP or non-SOAP protocols and using the HTTP POST method

### Request document name and version

Order list request Version 1.0	<OrderListRequest version="1.0"> { "OrderListRequest": { "version": ,...
--------------------------------	---

### Request document content

1	A unique identifier for the sender of the request. An alphanumeric string not containing spaces or punctuation	D <sup>2</sup>	ClientID
2	A password to further authenticate the sender of the request	D	ClientPassword
3	Account identifier. Mandatory in all order list requests. A code value from a BIC-controlled codelist for the scheme used for the account identifier (see ONIX codelist 44). Permitted schemes are: 01 Proprietary 06 EAN-UCC GLN 07 SAN 11 PubEasy PIN Account identifier for this request, using the specified scheme	M M M	AccountIdentifier. AccountIDType  IDValue
4	Identification number / string of this request	D	RequestNumber
5	Document date/time: the date/time when the request was generated. Permitted formats are: YYYYMMDD YYYYMMDDTHHMM YYYYMMDDTHHMMZ (universal time) YYYYMMDDTHHMM±HHMM (time zone) where "T" represents itself, i.e. letter T	D	IssueDateTime
6	Supplier to whom this request should be forwarded, if it is not addressed to the web service host (use only for requests sent to aggregation services). Supplier ID type - see ONIX codelist 92 ID type name, only if ID type = proprietary Identifier	D M D M	SupplierIdentifier.  SupplierIDType IDTypeName IDValue
7	Start date of the period for which the list of orders placed in that period is requested. – YYYYMMDD	D	PeriodStartDate
8	End date of the period for which the list of orders placed in that period is requested. – YYYYMMDD	D	PeriodEndDate
9	Order number pattern to be matched. Use a regular expression that conforms to Appendix G of W3C XML Schema Definition Language (XSD) 1.1 Part 2: Datatypes.	D	ReferenceNumberPattern
10	Order line status has changed or not. Used to request a list of orders in which either at least one order line status has changed, or no order line status has changed. If this element is included, the changed-after date must be specified (see line 11). 00 Order status has not changed 01 Order status has changed	D	OrderStatusChanged
11	Date after which the order line status has changed or not, depending upon the OrderStatusChanged code. Mandatory if OrderStatusChanged is included, otherwise not used. – YYYYMMDD	D	ChangedAfterDate

<sup>2</sup> In the third column "M" means mandatory and "D" means dependent upon the business or message context.

*Example of a Retrieve Order List Request XML payload using either the SOAP or the HTTP protocol and the HTTP POST method, in which the request is for all orders issued from 1 April 2015 onwards:*

```
<OrderListRequest version="1.0"
  xmlns="http://www.bic.org.uk/librarywebservices/orderList">
  <AccountIdentifier>
    <AccountIDType>01</AccountIDType>
    <IDValue>12345</IDValue>
  </AccountIdentifier>
  <RequestNumber>001</RequestNumber>
  <IssueDateTime>20180422T1525</IssueDateTime>
  <PeriodStartDate>20180401</PeriodStartDate>
</OrderListRequest>
```

*Equivalent JSON payload:*

```
{
  "OrderListRequest": {
    "version": "1.0",
    "xmlns": "http://www.bic.org.uk/librarywebservices/orderList",
    "AccountIdentifier": {
      "AccountIDType": "01",
      "IDValue": "12345"
    },
    "RequestNumber": "001",
    "IssueDateTime": "20180422T1525",
    "PeriodStartDate": "20180401"
  }
}
```

*Example of a Retrieve Order List Request XML payload using either the SOAP or the HTTP protocol and the HTTP POST method, in which the request is for all orders with order numbers that match the regular expression pattern '01020\d+' (i.e. numbers beginning '01020'):*

```
<OrderListRequest version="1.0"
  xmlns="http://www.bic.org.uk/librarywebservices/orderList">
  <AccountIdentifier>
    <AccountIDType>01</AccountIDType>
    <IDValue>12345</IDValue>
  </AccountIdentifier>
  <RequestNumber>001</RequestNumber>
  <IssueDateTime>20150422T1525</IssueDateTime>
  <ReferenceNumberPattern>01020\d+</ReferenceNumberPattern>
</OrderListRequest>
```

*Equivalent JSON payload:*

```
{
  "OrderListRequest": {
    "version": "1.0",
    "xmlns": "http://www.bic.org.uk/librarywebservices/orderList",
    "AccountIdentifier": {
      "AccountIDType": "01",
      "IDValue": "12345"
    },
    "RequestNumber": "001",
    "IssueDateTime": "20150422T1525",
    "ReferenceNumberPattern": "01020\d+"
  }
}
```

```
    "ReferenceNumberPattern": "01020\\d+"  
  }  
}
```

## RETRIEVE ORDER LIST – RESPONSE

The Response will use the protocol corresponding to the Request. If the Request uses the basic HTTP protocol, the Response will be an XML document as specified below attached to a normal HTTP header. If the Request uses the SOAP protocol, the Response will contain a SOAP response message whose body will contain the XML document specified below.

### Response document name and version

<b>Retrieve order list response Version 1.0</b>	<b>&lt;OrderListResponse version="1.0"&gt; { "OrderListRequest": { "version": ,...</b>
---	--

### Header

	<b>Response payload header</b>	<b>M</b>	<b>Header.</b>	<b>3</b>
1	Document date/time: the date/time when the report was generated. Permitted formats are: YYYYMMDD YYYYMMDDTHHMM YYYYMMDDTHHMMZ (universal time) YYYYMMDDTHHMM±HHMM (time zone) where "T" represents itself, i.e. letter T	M	IssueDateTime	
2	Sender (web service host) Sender ID type - see ONIX codelist 92 ID type name, only if ID type = proprietary Identifier	M M D M	SenderIdentifier. SenderIDType IDTypeName IDValue	
3	Identification number / string of this response	D	ResponseNumber	
4	Account identifier. Mandatory in all responses. A code value from a BIC-controlled codelist for the scheme used for the account identifier (see ONIX codelist 44). Must be specified if an account identifier is specified. Permitted schemes are: 01 Proprietary 06 EAN-UCC GLN 07 SAN 11 PubEasy PIN Account identifier for this request, using the specified scheme	M M M	AccountIdentifier. AccountIDType  IDValue	
5	References: request number and/or date/time of request must be quoted if included in the request. Reference type 01 Number or date/time of associated order list request Reference number / string Reference date or date and time. Mandatory if an IssueDateTime is included in the request. See Header line 1 for format options.	D M M D	ReferenceCoded  ReferenceTypeCode  ReferenceNumber ReferenceDateTime	
6	Supplier identifier (only included if specified in the request; mandatory if the response type code is '19') Supplier ID type - see ONIX codelist 92 ID type name, only if Supplier ID type is proprietary Identifier	D M D M	SupplierIdentifier.  SupplierIDType IDTypeName IDValue	

<sup>3</sup> An 'R' in the right-most column means that the element is repeatable.

**Response header (continued)**

	<b>Payload header</b>	<b>M</b>	<b>Header.</b>	
7	Response code, if there are exception conditions.  Response type code. Suggested code values: 01 Service unavailable 02 Invalid ClientID or ClientPassword 03 Server unable to process request – a reason should normally be given as a free text description – see below 16 Invalid or unknown account, supplier or ship-to party identifier 17 Invalid period start or end date 18 Server unable to process request - specified range too large 19 Server unable to process request – unable to contact supplier  Free text description / reason for response	D  M        D	ResponseCoded.  ResponseType       ResponseTypeDescription	R

**Response detail**

	<b>Details of all orders that meet the selection criteria in the request. Mandatory unless the header reports a condition that prevents any response</b>	<b>D</b>	<b>ItemDetail.</b>	<b>R</b>
1	Order list response item line number	D	LineNumber	
2	Document references. It is mandatory to include the buyer's order reference in all items. If the order has been partly or completely fulfilled, one or more delivery note references must be included.  Reference type code 11 Buyer's order reference 23 Supplier's order reference  Reference number / string  Reference date or date and time. See Header line 1 for format options.	M  M  D D	ReferenceCoded  ReferenceTypeCode  ReferenceNumber ReferenceDateTime	R
3	Total number of order lines on this order	M	NumberOfLines	
4	Total number of order lines not yet fulfilled on this order	M	NumberOfOpenLines	

*Example of a Retrieve Order List Response XML payload using either the SOAP or the HTTP protocol and the HTTP POST method:*

```
<OrderListResponse version="1.0"
xmlns="http://www.bic.org.uk/librarywebservices/orderList">
  <Header>
    <IssueDateTime>20180422T1527</IssueDateTime>
    <SenderIdentifier>
      <SenderIDType>01</SenderIDType>
      <IDValue>XYZ</IDValue>
    </SenderIdentifier>
    <AccountIdentifier>
      <AccountIDType>01</AccountIDType>
      <IDValue>12345</IDValue>
    </AccountIdentifier>
  </Header>
  <ItemDetail>
    <ReferenceCoded>
      <ReferenceTypeCode>11</ReferenceTypeCode>
      <ReferenceNumber>01020304</ReferenceNumber>
      <ReferenceDateTime>20180409</ReferenceDateTime>
    </ReferenceCoded>
    <ReferenceCoded>
      <ReferenceTypeCode>23</ReferenceTypeCode>
      <ReferenceNumber>DN0123456</ReferenceNumber>
    </ReferenceCoded>
    <NumberOfLines>10</NumberOfLines>
    <NumberOfOpenLines>5</NumberOfOpenLines>
  </ItemDetail>
  <ItemDetail>
    <ReferenceCoded>
      <ReferenceTypeCode>11</ReferenceTypeCode>
      <ReferenceNumber>01020405</ReferenceNumber>
      <ReferenceDateTime>20180419</ReferenceDateTime>
    </ReferenceCoded>
    <NumberOfLines>8</NumberOfLines>
    <NumberOfOpenLines>8</NumberOfOpenLines>
  </ItemDetail>
</OrderListResponse>
```

Example of a Retrieve Order List Response JSON payload using either the SOAP or the HTTP protocol and the HTTP POST method:

```
{
  "OrderListResponse": {
    "version": "1.0",
    "xmlns": "http://www.bic.org.uk/librarywebservices/orderList",
    "Header": {
      "IssueDateTime": "20180422T1527",
      "SenderIdentifier": {
        "SenderIDType": "01",
        "IDValue": "XYZ"
      },
      "AccountIdentifier": {
        "AccountIDType": "01",
        "IDValue": "12345"
      }
    },
    "ItemDetail": [
      {
        "ReferenceCoded": [
          {
            "ReferenceTypeCode": "11",
            "ReferenceNumber": "O1020304",
            "ReferenceDateTime": "20180409"
          },
          {
            "ReferenceTypeCode": "23",
            "ReferenceNumber": "DN0123456"
          }
        ],
        "NumberOfLines": 10,
        "NumberOfOpenLines": 5
      },
      {
        "ReferenceCoded": {
          "ReferenceTypeCode": "11",
          "ReferenceNumber": "O1020405",
          "ReferenceDateTime": "20180419"
        },
        "NumberOfLines": 8,
        "NumberOfOpenLines": 8
      }
    ]
  }
}
```