



Book Industry Communication

BIC Realtime

Standards for Instant Business Message Exchange

Retrieve Order List Request and Response

Version 2.0, 3 April 2020

This document: <https://www.bic.org.uk/files/pdfs/API/Trade/BICWSOrderList-V2.0.pdf>

XML schema: https://www.bic.org.uk/files/xml/BICWSOrderList_V2.0.xsd

WSDL file: https://www.bic.org.uk/files/xml/BICWSOrderListSOAP_V2.0.wsdl

XML namespace: <https://www.bic.org.uk/webservices/orderList>

Next review date: 26 February 2021

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

Three alternative formats are specified for Requests:

- an HTTPS query format for use with implementations that use the basic HTTPS protocol¹ and GET method – sometimes referred to as the REST approach
- an XML format for use with both implementations that use either SOAP or the basic HTTPS protocol and POST method.
- a JSON format for use with implementations that use the basic HTTPS protocol and POST method.

The Response payload format options (payload in XML or JSON) will both apply to basic HTTPS exchanges using the POST method, but XML is the only Response payload format supported for HTTPS requests using the GET method. A Request using the HTTPS GET method may be more limited than a Request using the HTTPS POST method, so the Response payload may use only a correspondingly limited subset of the content defined here. SOAP only supports XML as a Request or Response payload format.

The complete specification of the *BIC Realtime* 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 *BIC Realtime* web service
- an XML Schema for Requests and Response payloads in XML format.

It is strongly recommended that SOAP client implementations of this *BIC Realtime* 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.

¹ Throughout the term 'HTTPS protocol' is to be interpreted as including secure internet protocols that are implemented either at the application layer (e.g. HTTPS) or are implemented at the transport layer (e.g. SSL/TLS).

Business requirements

There is a need for buyers, including EDI users, to ensure that they are aware of all orders received and not yet fulfilled by a particular supplier. This *BIC Realtime* 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 *BIC Realtime* 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.

Correction and additions for Version 2.0 made January 2020

- General Version number updated from '1.1' to '2.0' in specification tables and examples.
Support for JSON implementation added to specification tables and examples.
Text corrected in various places to make it clear that the SOAP protocol only supports XML payloads and not JSON payloads.
Deprecated elements and code values removed.
- Page 3 HTTPS Request lines 1 and 2: Parameters ClientID and ClientPassword made non-mandatory. It is recommended that HTTPS header-based authentication be used where possible.
HTTPS Request line 12: Parameter DescriptionLanguageCode added to enable preferred language of descriptions to be specified. The value must be a three-letter language code from ONIX code list 74.
- Page 5 Request payload lines 1 and 2: Elements ClientID and ClientPassword made non-mandatory. It is recommended that HTTPS header-based authentication be used where possible.
- Page 6 Request header line 10: Element DescriptionLanguageCode added to enable preferred language of descriptions to be specified. The value must be a three-letter language code from ONIX code list 74.
- Page 8 Response header line 7: Element DescriptionLanguageCode added to enable preferred language of descriptions to be specified. The value must be a three-letter language code from ONIX code list 74.

RETRIEVE ORDER LIST – REQUEST

Requests using the HTTPS protocol and the GET method

Requests using the HTTPS protocol and the GET method should include a query string containing parameters as specified below.

²	Parameter description	M ³	Name	
1	A unique identifier for the sender of the Request. An alphanumeric string not containing spaces or punctuation. The form of the identifier used must be agreed between the parties to an exchange ⁴ .	D	ClientID	
2	A password to further authenticate the sender of the request ⁴ .	D	ClientPassword	
3	Identification number of this request	D	RequestNumber	
4	A code value from a BIC-controlled codelist for the scheme used for the customer account identifier (see ONIX codelist 44). Mandatory in all order list requests. Permitted values are: 01 Proprietary 06 EAN-UCC GLN 07 SAN 11 PubEasy PIN	M	AccountIDType	
5	Account identifier for this request, using the specified scheme. Mandatory in all order list requests All listed documents must relate to this account.	M	AccountIDValue	
6	A date/time reference for this request	D	IssueDateTime	
7	If and only if this parameter is supported by the <i>BIC Realtime</i> web service implementation, a third party supplier may be specified where the web service host is not the supplier fulfilling the order, in which case this parameter and the next must be included. This parameter contains a code value from a BIC-controlled codelist for the type of identifier of the supplier - see ONIX codelist 92	D	SupplierIDType	
8	A unique supplier identifier of the specified type	D	SupplierIDValue	
9	Start date of the period for which a list of orders is requested – YYYYMMDD	D	PeriodStartDate	
10	End date of the period for which a list of orders is requested – YYYYMMDD	D	PeriodEndDate	
11	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. Characters that have reserved use in HTTPS query parts must be percent encoded.	D	ReferenceNumberPattern	
12	Language in which the requester would prefer free-text descriptions to be expressed – use ONIX code list 74.	D	DescriptionLanguageCode	

A valid request must contain at least one of a start date, an end date or an order number pattern.

² The order of parameters in an HTTPS GET Request is insignificant.

³ In the column headed "M", "M" means mandatory, and "D" means dependent.

⁴ It is recommended that HTTPS header-based authentication be used where possible.

Example of a Request using the HTTPS protocol and the GET method, in which the request is for all orders issued from 1 April 2019 onwards:

`https://www.booksupplier.co.uk/OrderListService?ClientID=12345&ClientPassword=x9a44Ysj
&AccountIDType=01&AccountIDValue=XYZ&PeriodStartDate=20190401`

Example of a Request using the HTTPS protocol and the GET method, in which the request is for all orders issued between 1 January 2019 and 1 April 2019:

`https://www.booksupplier.co.uk/OrderListService?ClientID=12345&ClientPassword=x9a44Ysj
&AccountIDType=01&AccountIDValue=XYZ&PeriodStartDate=20190101&PeriodEndDate=20190401`

Example of a Request using the HTTPS protocol and the GET method, in which the request is for all orders whose number match the specified pattern '01020\d+' (i.e. numbers beginning '01020'):

`https://www.booksupplier.co.uk/OrderListService?ClientID=12345&ClientPassword=x9a44Ysj
&AccountIDType=01&AccountIDValue=XYZ&ReferenceNumberPattern=01020%5Cd%2B`

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

Requests using the HTTPS POST method should include an XML or JSON document as the body of a request message. Requests using the SOAP protocol must include an XML document. Multiple ship-to parties may be specified using this method.

Request document name and version

Order list request Version 2.0	<OrderListRequest version="2.0"> { "OrderListRequest": { "version": ...
---------------------------------------	--

Request document content

	Request payload			
1	A unique identifier for the sender of the request. An alphanumeric string not containing spaces or punctuation	D	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 <i>BIC Realtime</i> 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 is requested. – YYYYMMDD	D	PeriodStartDate	
8	End date of the period for which the list 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	Language in which the requester would prefer free-text descriptions to be expressed – use ONIX code list 74.	D	DescriptionLanguageCode	

Example of a Retrieve Order List Request XML payload using either the SOAP or the HTTPS protocol and the POST method, in which the request is for all orders issued from 1 April 2019 onwards:

```
<OrderListRequest version="2.0"
  xmlns="http://www.bic.org.uk/webservices/orderList">
  <AccountIdentifier>
    <AccountIDType>01</AccountIDType>
    <IDValue>12345</IDValue>
  </AccountIdentifier>
  <RequestNumber>001</RequestNumber>
  <IssueDateTime>20190422T1525</IssueDateTime>
  <PeriodStartDate>20190401</PeriodStartDate>
</OrderListRequest>
```

Example of a Retrieve Order List Request JSON payload using either the SOAP or the HTTPS protocol and the POST method, in which the request is for all orders issued from 1 April 2019 onwards:

```
{
  "OrderListRequest": {
    "version": "2.0",
    "xmlns": "http://www.bic.org.uk/webservices/orderList",
    "AccountIdentifier": {
      "AccountIDType": "01",
      "IDValue": "12345"
    },
    "RequestNumber": "001",
    "IssueDateTime": "20190422T1525",
    "PeriodStartDate": "20190401"
  }
}
```

Example of a Retrieve Order List Request XML payload using either the SOAP or the HTTPS protocol and the 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="2.0"
  xmlns="http://www.bic.org.uk/webservices/orderList">
  <AccountIdentifier>
    <AccountIDType>01</AccountIDType>
    <IDValue>12345</IDValue>
  </AccountIdentifier>
  <RequestNumber>001</RequestNumber>
  <IssueDateTime>20190422T1525</IssueDateTime>
  <ReferenceNumberPattern>01020\d+</ReferenceNumberPattern>
</OrderListRequest>
```

RETRIEVE ORDER LIST – RESPONSE

The Response will use the protocol corresponding to the Request. If the Request uses the basic HTTPS protocol, the Response will be an XML or JSON document as specified below attached to a normal HTTPS 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

	Retrieve order list response Version 2.0		<OrderListResponse version="2.0"> { "OrderListResponse": { "version": ...	
--	---	--	--	--

Header

	Response payload header	M	Header.	5
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 (<i>BIC Realtime</i> 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	

⁵ An 'R' in the right-most column means that the element is repeatable. If implementing this API using the JSON format option, all repeatable elements must be represented by JSON array objects.

Response header (continued)

	Payload header	M	Header.	
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 Language of description. Mandatory if included in the request. See request header line 10.	D M D D	ResponseCoded. ResponseType ResponseTypeDescription DescriptionLanguageCode	R

Response detail

	Details of all orders that meet the selection criteria in the request. Mandatory unless the header reports a condition that prevents any response	D	ItemDetail.	R
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 HTTPS protocol and the POST method:

```
<OrderListResponse version="2.0"
xmlns="http://www.bic.org.uk/webservices/orderList">
  <Header>
    <IssueDateTime>20190422T1527</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>20190409</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>20190419</ReferenceDateTime>
    </ReferenceCoded>
    <NumberOfLines>8</NumberOfLines>
    <NumberOfOpenLines>8</NumberOfOpenLines>
  </ItemDetail>
</OrderListResponse>
```

Example of a Retrieve Order List Response JSON payload using the HTTPS protocol and the POST method:

```
{
  "OrderListResponse": {
    "version": "2.0",
    "xmlns": "http://www.bic.org.uk/webservices/orderList",
    "Header": {
      "IssueDateTime": "20190422T1527",
      "SenderIdIdentifier": {
        "SenderIDType": "01",
        "IDValue": "XYZ"
      },
      "AccountIdentifier": {
        "AccountIDType": "01",
        "IDValue": "12345"
      }
    },
    "ItemDetail": [
      {
        "ReferenceCoded": [
          {
            "ReferenceTypeCode": "11",
            "ReferenceNumber": "O1020304",
            "ReferenceDateTime": "20190409"
          },
          {
            "ReferenceTypeCode": "23",
            "ReferenceNumber": "DN0123456"
          }
        ],
        "NumberOfLines": 10,
        "NumberOfOpenLines": 5
      },
      {
        "ReferenceCoded": [
          {
            "ReferenceTypeCode": "11",
            "ReferenceNumber": "O1020405",
            "ReferenceDateTime": "20190419"
          }
        ],
        "NumberOfLines": 8,
        "NumberOfOpenLines": 8
      }
    ]
  }
}
```