

# *Book Industry Communication*



## **Library Interoperability Standards LCF Information Entities XML bindings**

Version 1.0, 10 January 2014

This document specifies XML bindings for the information entities defined in version 1.0 of the LCF data communication framework. It is intended to be used with any implementation of LCF in which the information entities are encoded in XML, and specifically with the standard web service implementations of LCF.

This document also specifies a standard XML binding for the data framework for communicating exception conditions in LCF response messages.

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

This document is subject to revision from time to time. The latest versions of this document, the LCF data framework specification, code lists and other resources supporting specific implementations of the LCF standard may be found at <http://www.bic.org.uk/114/LCF/>.

An XML schema is available that corresponds to this specification.

The namespace for these XML bindings is "http://ns.bic.org.uk/lcf/1.0"

**E01 MANIFESTATION**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
1		<b>manifestation</b> xmlns= "http://ns.bic.org/lcf/1.0" version="1.0"			<b>Top-level element with mandatory 'version' attribute</b>
2	<b>E01D01</b>	<b>identifier</b>	<b>1</b>	<b>String</b>	
3	E01C02	additional-manifestation-id	0-n		
4	E01D02.1	manifestation-id-type	1	Code	MNI
5	E01D02.2	type-name	0-1	String	
6	E01D02.3	value	1	String	
7	E01C03	media-type	0-n		
8	E01D03.1	media-type-scheme	1	Code	MES
9	E01D03.2	scheme-name	0-1	String	
10	E01D03.3	scheme-code	1	String	
11	E01C04	title	0-n		
12	E01D04.1	title-type	1	Code	TTL
13	E01D04.2	title-text	1	String	
14	E01D04.3	subtitle	0-1	String	
15	E01C05	contributor	0-n		
16	E01D05.1	contributor-role	1	Code	ONIX code list 17
17	E01D05.2	contributor-name	0-1	String	Either a contributor name or an unnamed contributor code must be included in each contributor composite.
18	E01D05.3	unnamed-contributor	0-1	Code	UNC
19	E01C06	series	0-1		
20	E01C06.1	title	0-n		

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
21	E01D06.1.1	title-type	1	Code	TTL
22	E01D06.1.2	title-text	1	String	
23	E01D06.1.3	subtitle	0-1	String	
24	E01D06.2	volume-or-part	0-1	String	
25	E01D06.3	other-manifestation-in-series-id	0-n	String	
26	E01D07	edition-statement	0-1	String	
27	E01D08	publisher-name	0-1	String	
28	E01D09	year-of-publication	0-1	YYYY	
29	E01C10	classification	0-n		
30	E01D10.1	class-scheme-ref	1	String	
31	E01D10.2	class-term-ref	1	String	
32	E01D11	cover-art	0-n	URI	
33	E01D12	description	0-1	String	
34	E01C13	loan-restriction	0-n		
35	E01D13.1	restriction-type	1	Code	CRT
36	E01D13.2	value	1	String	
37	E01D13.3	note	0-1	String	
38	E01C14	loan-fee	0-n		
39	E01D14.1	fee-type	1	Code	CHT
40	E01D14.2	amount	1	Decimal	
41	E01D14.3	currency	0-1	Code	ISO 3-letter code
42	E01D15	patrons-in-hold-queue	0-1	Integer	
43	E01D16	manifestation-record-ref	0-1	String	

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>44</b>	<b>E01D17</b>	<b>manifestation-status</b>	<b>1</b>	<b>Code</b>	<b>MNS</b>
45	E01D18	items-in-stock	0-1	Integer	
46	E01D19	item-ref	0-n	String	
47	E01C20	reservation-ref	0-n	String	
48	E01C21	note	0-n		
49	E01D21.1	note-type	0-1	Code	NOT
50	E01D21.2	date-time	0-1	DateTime	
51	E01D21.3	note-text	1	String	

#### *Example of a manifestation*

```
<manifestation xmlns="http://ns.bic.org/lcf/1.0" version="1.0">
  <identifier>1234567890</identifier>
  <media-type>
    <media-type-scheme>02</media-type-scheme>
    <scheme-code>001</scheme-code>
  </media-type>
  <title>
    <title-type>01</title-type>
    <title-text>Title on book</title-text>
  </title>
  <contributor>
    <contributor-role>A01</contributor-role>
    <contributor-name>Smith, J.</contributor-name>
  </contributor>
  <manifestation-status>02</manifestation-status>
</manifestation>
```

**E02 ITEM**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>1</b>		<b>item</b> <b>xmlns=</b> <b>"http://ns.bic.org/lcf/1.0"</b> <b>version="1.0"</b>			<b>Top-level element with mandatory 'version' attribute</b>
<b>2</b>	<b>E02D01</b>	<b>identifier</b>	<b>1</b>	<b>String</b>	
3	E02C02	additional-item-id	0-n		
4	E02D02.1	item-id-type	1	Code	IMI
5	E02D02.2	type-name	0-1	String	
6	E02D02.3	value	1	String	
<b>7</b>	<b>E02D03</b>	<b>manifestation-ref</b>	<b>1</b>	<b>String</b>	
8	E02D04	description	0-1	String	
9	E02D05	owner	0-1	String	
10	E02C06	associated-location	0-n		
11	E02D06.1	association-type	1	Code	LAT
12	E02D06.2	location-ref	1-n	String	
<b>13</b>	<b>E02D07</b>	<b>media-warning</b>	<b>1</b>	<b>Code</b>	<b>MEW</b>
<b>14</b>	<b>E02D08</b>	<b>security-desensitize</b>	<b>1</b>	<b>Code</b>	<b>SCD</b>
15	E02C09	loan-restriction	0-n		
16	E02D09.1	restriction-type	1	Code	CRT
17	E02D09.2	value	1	String	
18	E02D09.3	note	0-1	String	
19	E02C10	loan-fee	0-n		
20	E02D10.1	fee-type	1	Code	CHT
21	E02D10.2	amount	1	Decimal	

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
22	E02D10.3	currency	0-1	Code	ISO 3-letter code
<b>23</b>	<b>E02D11</b>	<b>circulation-status</b>	<b>1</b>	<b>Code</b>	<b>CIS</b>
24	E02D12	reservation-ref	0-n	String	
25	E02D13	patrons-in-hold-queue	0-1	Integer	
26	E02D14	on-loan-ref	0-1	String	
27	E02D15	condition-code	0-1	Code	LMS-proprietary
28	E02D16	condition-description	0-1	String	
29	E02C17	note	0-n		
30	E02D17.1	note-type	0-1	Code	NOT
31	E02D17.2	date-time	0-1	DateTime	
32	E02D17.3	note-text	1	String	

*Example of an item*

```
<item xmlns="http://ns.bic.org/lcf/1.0" version="1.0">
  <item-id>9876543210</item-id>
  <manifestation-ref>1234567890</manifestation-ref>
  <media-warning>02</media-warning>
  <security-desensitize>01</security-desensitize>
  <circulation-status>03</circulation-status>
</item>
```

**E03 PATRON**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>1</b>		<b>patron</b> <b>xmlns=</b> <b>"http://ns.bic.org/lcf/1.0"</b> <b>version="1.0"</b>			<b>Top-level element with mandatory 'version' attribute</b>
<b>2</b>	<b>E03D01</b>	<b>identifier</b>	<b>1</b>	<b>String</b>	
3	E03D02	contact-ref	0-1	String	
3	E03C03	associated-location	0-n		
4	E03D03.1	association-type	1	Code	LAT
5	E03D03.2	location-ref	1-n	String	
6	E03D04	patron-status	0-n	Code	PNS
7	E03D05	card-status	0-1	Code	PCS
8	E03D06	blocked-card-message	0-1	String	Only included if E03D08 is included.
9	E03D07	loan-ref	0-n	String	
10	E03D08	on-loan-items	0-1	Integer	
11	E03D09	loan-items-limit	0-1	Integer	
12	E03D10	overdue-items	0-1	Integer	
13	E03D11	overdue-items-limit	0-1	Integer	
14	E03D12	recalled-items	0-1	Integer	
15	E03D13	fees-due-items	0-1	Integer	
16	E03D14	finer-due-items	0-1	Integer	
17	E03D15	reservation-ref	0-n	String	
18	E03D16	available-hold-items	0-1	Integer	
19	E03D17	unavailable-hold-items	0-1	Integer	
20	E03D18	hold-items-limit	0-1	Integer	

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
21	E03D19	charge-ref	0-n	String	
22	E03C20	charge-limit	0-n		
23	E03D20.1	charge-type	0-1	Code	CHT
24	E03D20.2	amount	1	Decimal	
25	E03D20.3	currency	0-1	Code	ISO currency code
26	E03C21	note	0-n		
27	E03D21.1	note-type	0-1	Code	NOT
28	E03D21.2	date-time	0-1	DateTime	
29	E03D21.3	note-text	1	String	



**E04 LOCATION**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>1</b>		<b>location</b> <b>xmlns=</b> <b>"http://ns.bic.org/lcf/1.0"</b> <b>version="1.0"</b>			<b>Top-level element with mandatory 'version' attribute</b>
<b>2</b>	<b>E04D01</b>	<b>identifier</b>	<b>1</b>	<b>String</b>	
3	E04C02	additional-location-id	0-n		
4	E04D02.1	location-id-type	1	Code	LOI
5	E04D02.2	type-name	0-1	String	
6	E04D02.3	value	1	String	
7	E04D03	name	0-1	String	
8	E04D04	location-type	0-1	Code	LOT
9	E04D05	description	0-1	String	
10	E04C06	note	0-n		
11	E04D06.1	note-type	0-1	Code	NOT
12	E04D06.2	date-time	0-1	DateTime	
13	E04D06.3	note-text	1	String	

**E05 LOAN**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>1</b>		<b>loan</b> <b>xmlns=</b> <b>"http://ns.bic.org/lcf/1.0"</b> <b>version="1.0"</b>			<b>Top-level element with mandatory 'version' attribute</b>
<b>2</b>	<b>E05D01</b>	<b>identifier</b>	<b>1</b>	<b>String</b>	
<b>3</b>	<b>E05D02</b>	<b>patron-ref</b>	<b>1</b>	<b>String</b>	
<b>4</b>	<b>E05D03</b>	<b>item-ref</b>	<b>1</b>	<b>String</b>	
<b>5</b>	<b>E05D04</b>	<b>start-date</b>	<b>1</b>	<b>DateTime</b>	
6	E05D05	end-due-date	0-1	DateTime	
7	E05D06	end-date	0-1	DateTime	
<b>8</b>	<b>E05D07</b>	<b>loan-status</b>	<b>1-n</b>	<b>Code</b>	<b>LOS</b>
9	E05D08	previous-loan-ref	0-1	String	
10	E05D09	renewal-loan-ref	0-1	String	
11	E05D10	recall-notice-date	0-1	DateTime	
12	E05D11	charge-ref	0-n	String	
13	E05C12	note	0-n		
14	E05D12.1	note-type	0-1	Code	<b>NOT</b>
15	E05D12.2	date-time	0-1	DateTime	
16	E05D12.3	note-text	1	String	

**E06 RESERVATION**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>1</b>		<b>reservation</b> xmlns= "http://ns.bic.org/lcf/1.0" version="1.0"			<b>Top-level element with mandatory 'version' attribute</b>
<b>2</b>	<b>E06D01</b>	<b>identifier</b>	<b>1</b>	<b>String</b>	
<b>3</b>	<b>E06D02</b>	<b>reservation-type</b>	<b>1</b>	<b>Code</b>	<b>RVT</b>
<b>4</b>	<b>E06D03</b>	<b>patron-ref</b>	<b>1</b>	<b>String</b>	
5	E06D04	manifestation-ref	0-1	String	Either E06D04 or E06D05 must be included in each reservation instance
6	E06D05	item-ref	0-1	String	
7	E06D06	start-date	0-1	DateTime	
8	E06D07	pickup-institution-ref	0-1	String	
9	E06D08	pickup-location-ref	0-1	String	
10	E06D09	pickup-date	0-1	DateTime	
11	E06D10	end-date	0-1	DateTime	
<b>12</b>	<b>E06D11</b>	<b>reservation-status</b>	<b>1</b>	<b>Code</b>	<b>RVS</b>
13	E06D12	loan-ref	0-1	String	
14	E06D13	charge-ref	0-n	String	
15	E06C14	note	0-n		
16	E06D14.1	note-type	0-1	Code	<b>NOT</b>
17	E06D14.2	date-time	0-1	DateTime	
18	E06D14.3	note-text	1	String	

**E07 CHARGE**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>1</b>		<b>charge</b> <b>xmlns=</b> <b>"http://ns.bic.org/lcf/1.0"</b> <b>version="1.0"</b>			<b>Top-level element with mandatory 'version' attribute</b>
<b>2</b>	<b>E07D01</b>	<b>identifier</b>	<b>1</b>	<b>String</b>	
<b>3</b>	<b>E07D02</b>	<b>patron-ref</b>	<b>1</b>	<b>String</b>	
<b>4</b>	<b>E07D03</b>	<b>charge-type</b>	<b>1</b>	<b>Code</b>	<b>CHT</b>
<b>5</b>	<b>E07D04</b>	<b>charge-status</b>	<b>1</b>	<b>Code</b>	<b>CHS</b>
6	E07D05	description	0-1	String	
7	E07D06	item-ref	0-1	String	
8	E07D07	manifestation-ref	0-1	String	
9	E07D08	loan-ref	0-1	String	
10	E07D09	reservation-ref	0-1	String	
11	E07D10	creation-date	0-1	DateTime	
12	E07D11	payment-due-date	0-1	DateTime	
<b>13</b>	<b>E07D12</b>	<b>charge-amount</b>	<b>1</b>	<b>Decimal</b>	
14	E07D13	currency	0-1	Code	ISO currency code
15	E07D14	paid-amount	0-1	Decimal	
16	E07D15	due-amount	0-1	Decimal	
17	E07D16	paid-date	0-1	DateTime	
18	E07D17	payment-ref	0-n	String	
19	E07C18	note	0-n		
20	E07D18.1	note-type	0-1	Code	NOT
21	E07D18.2	date-time	0-1	DateTime	
22	E07D18.3	note-text	1	String	

**E08 PAYMENT**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>1</b>		<b>payment</b> <b>xmlns=</b> <b>"http://ns.bic.org/lcf/1.0"</b> <b>version="1.0"</b>			<b>Top-level element with mandatory 'version' attribute</b>
<b>2</b>	<b>E08D01</b>	<b>identifier</b>	<b>1</b>	<b>String</b>	
<b>3</b>	<b>E08D02</b>	<b>patron-ref</b>	<b>1</b>	<b>String</b>	
<b>4</b>	<b>E08D03</b>	<b>payment-type</b>	<b>1</b>	<b>Code</b>	<b>PYT</b>
5	E08D04	description	0-1	String	
<b>6</b>	<b>E08D05</b>	<b>charge-ref</b>	<b>1-n</b>	<b>String</b>	
7	E08D06	payment-date	0-1	DateTime	
<b>8</b>	<b>E08D07</b>	<b>amount</b>	<b>1</b>	<b>Decimal</b>	
9	E08D08	currency	0-1	Code	ISO currency code
10	E08D09	payment-status	0-1	Code	PYS
11	E08D10	transaction-ref	0-1	String	
12	E08C11	note	0-n		
13	E08D11.1	note-type	0-1	Code	NOT
14	E08D11.2	date-time	0-1	DateTime	
15	E08D11.3	note-text	1	String	

**E09 CONTACT**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
1		<b>contact</b> <b>xmlns=</b> <b>"http://ns.bic.org/lcf/1.0"</b> <b>version="1.0"</b>			<b>Top-level element with mandatory 'version' attribute</b>
2	E09D01	<b>identifier</b>	1	<b>String</b>	
3	E09D02	<b>name</b>	1	<b>String</b>	
4	E09D03	<b>patron-ref</b>	1-n	<b>String</b>	
5	E09D04	address-line	0-n	String	
6	E09D05	communication-detail	0-n		
7	E09D05.1	communication-type	1	Code	CMT
8	E09D05.2	locator	1	String	
9	E09D06	language	0-1	Code	ISO three-letter code
10	E09C07	note	0-n		
11	E09D07.1	note-type	0-1	Code	NOT
12	E09D07.2	date-time	0-1	DateTime	
13	D09D07.3	note-text	1	String	

**E10 TITLE CLASSIFICATION SCHEME**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>1</b>		<b>class-scheme xmlns= "http://ns.bic.org/lcf/1.0" version="1.0"</b>			<b>Top-level element with mandatory 'version' attribute</b>
<b>2</b>	<b>E10D01</b>	<b>identifier</b>	<b>1</b>	<b>String</b>	Mandatory except when creating a new entity record
<b>3</b>	<b>E10D02</b>	<b>name</b>	<b>1</b>	<b>String</b>	
4	E10C03	note	0-n		
5	E10D03.1	note-type	0-1	Code	NOT
6	E10D03.2	date-time	0-1	DateTime	
7	E10D03.3	note-text	1	String	

**E11 TITLE CLASSIFICATION TERM**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>1</b>		<b>class-term xmlns= "http://ns.bic.org/lcf/1.0" version="1.0"</b>			<b>Top-level element with mandatory 'version' attribute</b>
<b>2</b>	<b>E11D01</b>	<b>identifier</b>	<b>1</b>	<b>String</b>	
<b>3</b>	<b>E11D02</b>	<b>code</b>	<b>1</b>	<b>String</b>	
<b>4</b>	<b>E11D03</b>	<b>class-scheme-ref</b>	<b>1</b>	<b>String</b>	
5	E11D04	heading	0-1	String	
6	E11C05	note	0-n	String	
7	E11D05.1	note-type	0-1	Code	NOT
8	E11D05.2	date-time	0-1	DateTime	
9	E11D05.3	note-text	1	String	



**E12 SELECTION CRITERION**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>1</b>		<b>property xmlns= "http://ns.bic.org/lcf/1.0" version="1.0"</b>			<b>Top-level element with mandatory 'version' attribute</b>
<b>2</b>	<b>E12D01</b>	<b>identifier</b>	<b>1</b>	<b>String</b>	
<b>3</b>	<b>E12D02</b>	<b>name</b>	<b>1</b>	<b>String</b>	
4	E12D03	entity-type	0-n	Code	ENT
5	E12D04	description	0-1	String	
6	E12D05	value-scheme-ref	0-1	String	
7	E12C06	note	0-n	String	
8	E12D06.1	note-type	0-1	Code	NOT
9	E12D06.2	date-time	0-1	DateTime	
10	E12D06.3	note-text	1	String	

**EXCEPTION CONDITIONS**

	<i>Element ID</i>	<i>XML structure</i>	<i>Card.</i>	<i>Data type</i>	<i>Notes</i>
<b>1</b>		<b>lcf-exception xmlns= "http://ns.bic.org/lcf/1.0" version="1.0"</b>			<b>Top-level element with mandatory 'version' attribute</b>
<b>2</b>	<b>R00C05</b>	<b>exception-condition</b>	<b>1-n</b>		
<b>3</b>	<b>R00D05.1</b>	<b>condition-type</b>	<b>1</b>	<b>Code</b>	<b>EXC</b>
4	R00D05.2	reason-denied	0-1	Code	RDN
5	R00D05.3	element-ref	0-1	String	
6	R00C06	message	0-n	Code	
7	R00D06.1	message-type	1	String	MGT
8	R00D06.2	message-text	1-n	String	