

### mEDRA Query Request Message: xml message overview

This document describes the specifications to perform queries on the CrossRef (CR) platform in xml format, using the query language mEDRA Query Schema. mEDRA Query Schema format enables multiple type of queries on the CR platform: i) retrieving the DOI associated with an article or a monograph by submitting the descriptive metadata (Metadata Query), ii) retrieving the bibliographic metadata by submitting the DOI (DOI Query), iii) retrieving the DOI by submitting a free text citation (Simple Text Query), iv) retrieving the list of the DOIs citing the DOI submitted by the user (Cited-By Query). The same xml message can contain multiple queries (either Metadata Query, DOI Query, Simple Text Query or Cited-By Query). Some elements of the query message may be associated with (optional) attributes which allow for the definition of additional query constraints or parameters (see Attributes sheet). For every element, the column "Used for" specifies whether: the element is used in all query messages (ALL Queries) or whether it only occurs in some query types (Metadata Query; DOI Query; Simple Text Query; Cited-By Query)

Element	Attribute	Datatype	Cardinality	Notes	Used for:
QueryRequestMessage			1	Every valid query starts with the element <QueryRequestMessage xsi:schemaLocation="http://www.medra.org/query http://www.medra.org/schema/query/crossref/mEDRA_query_request_1.0.xsd" xmlns="http://www.medra.org/query" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"> and contains one single <Header> group and one or multiple occurrences of the QueryRequest group.	ALL Queries
Header			1	Every ONIXDOIRegistrationMessage must contain one and only one occurrence of the Header group	ALL Queries
Header/FromEmail		string (1-n char)	1	The value in the FromEmail element will be used by the system to communicate the query hits - <i>WARNING: the entered e-mail address is checked for syntactic correctness. The regular expression has been derived from CrossRef (please see email_address in common 4.3.0)</i>	ALL Queries
Header/MessageReferenceNumber		alphanumeric string (4-100 char)	1	Use this element to assign an identification code to the message. The code must be freely defined by the user, as an alphanumeric string of minimum 4 digits or characters. The <MessageReferenceNumber> element is mandatory in every message and is returned to the user in the xml query response message, thereby resulting in easier traceability.	ALL Queries
/Header					
QueryRequest			1	Every QueryRequestMessage contains one and only one occurrence of the QueryRequest group. Depending on the types of queries that the user wants to perform, the QueryRequest group may contain <i>either</i> one or more occurrences of the Query group <i>or</i> one or more occurrences of the ForwardLinkingQuery group.	ALL Queries
Query	<i>enable-multiple-hits; list-components; expanded-results; key; forward-match</i>		0-n	Group of element that, in each one of its occurrences, allows to query on CrossRef. Every occurrence of the Query group allows to perform a Metadata Query (retrieving the DOI associated with an article or a monograph by submitting its bibliographic metadata) or a DOI Query (retrieving the bibliographic metadata by submitting the DOI) or a Simple Text Query (retrieving the DOI by submitting a citation in the form of free text). <b>See separate documentation on the elements of the Query group.</b>	MetadataQuery; DOI Query; Simple Text Query

/Query					
Group of elements that, in each one of its occurrence, allows to perform a Cited-By query, i.e. to retrieve the list of the DOIs citing the DOI queried by the user. This query type may only be performed by the users enabled for the <i>Cited-By service</i> . <b>See separate documentation on the elements of the ForwardLinkingQuery group.</b>					
ForwardLinkingQuery		<i>alert; start_date; end_date</i>	0-n		Cited-By Query
/ForwardLinkingQuery					
/QueryRequest					
/QueryRequestMessage					

**mEDRA Query Request Message: elements of the Query group**

This document describes the elements that may be used within the Query group to perform the following types of queries on the CR platform: i) retrieving the DOI associated with an article or a monograph by submitting the bibliographic metadata (Metadata Query), ii) retrieving the bibliographic metadata by submitting the DOI (DOI Query), iii) retrieving the DOI by submitting a free text citation (Simple Text Query). Multiple queries may be submitted within the same xml message. Some elements of the query message may be associated with (optional) attributes which allow for the definition of additional query constraints or parameters (see Attributes sheet).

**Use case 1: METADATA Query for an article**

Element	Attribute	Datatype	Cardinality	Notes
QueryRequestMessage/QueryRequest/Query	<i>enable-multiple-hits; list-components; expanded-results; key; forward-match</i>		0-n	Group of elements that, in each one of its occurrences, allows to query on CrossRef. <b>See separate documentation on mEDRA Query Request Message.</b>
QueryRequestMessage/QueryRequest/Query/JournalTitle	<i>match</i>	string (0-256)	0-1	Journal title
QueryRequestMessage/QueryRequest/Query/JournalVolumeNumber	<i>match</i>	string (0-256)	0-1	Volume number
QueryRequestMessage/QueryRequest/Query/JournalIssueNumber	<i>match</i>	string (0-256)	0-1	Journal issue number
QueryRequestMessage/QueryRequest/Query/JournalIssueDate	<i>match</i>	4 characters, in YYYY format	0-1	Journal issue publication date
QueryRequestMessage/QueryRequest/Query/ArticleTitle	<i>match</i>	string (0-256)	0-1	Article title
QueryRequestMessage/QueryRequest/Query/ISSN	<i>match</i>	4 digits + hyphen (optional) + 3 digits + 1 digit or the X character	0-1	Journal ISSN
QueryRequestMessage/QueryRequest/Query/AuthorName	<i>search-all-authors; match</i>	string (0-256)	0-1	Name of the author
QueryRequestMessage/QueryRequest/Query/FirstPageNumber	<i>match</i>	string (0-256)	0-1	Number of the first page of the article

**Use case 2: METADATA Query for a monograph**

Element	Attribute	Datatype	Cardinality	Notes
QueryRequestMessage/QueryRequest/Query	<i>enable-multiple-hits; list-components; expanded-results; key; forward-match</i>		0-n	Group of elements that, in each one of its occurrences, allows to query on CrossRef. <b>See separate documentation on mEDRA Query Request Message.</b>
QueryRequestMessage/QueryRequest/Query/BookTitle	<i>match</i>	string (0-256)	0-1	Monograph title
QueryRequestMessage/QueryRequest/Query/ISBN	<i>match</i>	string (10-17)	0-1	Monograph ISBN Accepted: ISBN -10, ISBN -13, with or without hyphens.
QueryRequestMessage/QueryRequest/Query/EditionNumber	<i>match</i>	string (0-256)	0-1	Edition number

QueryRequestMessage/QueryRequest/Query/PublicationDate	<i>match</i>	string (0-4) in YYYY format	0-1	Publication date
QueryRequestMessage/QueryRequest/Query/ComponentNumber	<i>match</i>	string (0-256)	0-1	Component number
QueryRequestMessage/QueryRequest/Query/TitleOfSeries	<i>match</i>	string (0-256)	0-1	Title of the series in which the monograph appears
QueryRequestMessage/QueryRequest/Query/NumberWithinSeries	<i>match</i>	string (0-256)	0-1	Number within the series
QueryRequestMessage/QueryRequest/Query/ISSN	<i>match</i>	4 digits + hyphen (optional) + 3 digits + 1 digit or the X character	0-1	Series ISSN
QueryRequestMessage/QueryRequest/Query/AuthorName	<i>search-all-authors; match</i>	string (0-256)	0-1	Name of the author of the monograph
QueryRequestMessage/QueryRequest/Query/FirstPageNumber	<i>match</i>	string (0-256)	0-1	Number of the first page of the monograph

### Use case 3: DOI Query

Element	Attribute	Datatype	Cardinality	Notes
QueryRequestMessage/QueryRequest/Query	<i>enable-multiple-hits; list-components; expanded-results; key; forward-match</i>		0-n	Group of elements that, in each one of its occurrences, allows to query on CrossRef. <b>See separate documentation on mEDRA Query Request Message.</b>
QueryRequestMessage/QueryRequest/Query/DOI	<i>Key</i>	string (6-2048)	0-1	The DOI of the publication for which the user wants to query CrossRef and retrieve the bibliographic metadata. Please be advised that a valid DOI is an alphanumeric string in the format 10.prefix/suffix. (e.g.: 10.abc123/cde456)

### Use case 4: Simple Text Query

Element	Attribute	Datatype	Cardinality	Notes
QueryRequestMessage/QueryRequest/Query	<i>enable-multiple-hits; list-components; expanded-results; key; forward-match</i>		0-n	Group of elements that, in each one of its occurrences, allows to query on CrossRef. <b>See separate documentation on mEDRA Query Request Message.</b>
QueryRequestMessage/QueryRequest/Query/UnstructuredCitation	<i>Key</i>	text + any face-markups: (b) bold, (i) italic, (u) underline, (ovl) over-line, (sup) superscript, (sub) subscript, (scp) small caps, (tt) typewriter text	0-1	Free text citation of the publication for which the user wants to query CrossRef to retrieve the DOI

**mEDRA Query Request Message: elements of the ForwardLinkingQuery group**

This document describes the elements used within the ForwardLinkingQuery group to perform a Cited-By query. This query type allows to retrieve the list of the DOIs citing the DOI submitted by the user in input. Cited-by queries may only be performed by the users who applied for the Cited-By service. Multiple queries may be submitted within the same xml message. The ForwardLinkingQuery element may be associated with attributes (optional), which enables to define additional query constraints or parameters (see Attributes sheet).

Element	Attribute	Datatype	Cardinality	Notes
QueryRequestMessage/QueryRequest/ForwardLinkingQuery	<i>alert;</i> <i>start_date;</i> <i>end_date</i>		0-n	Group of elements that, in each one of its occurrence, allows to perform a Cited-By query, i.e. to retrieve the list of the DOIs citing a publication by submitting its DOI input. This query type may only be performed by the users enabled for the <i>Cited-By service</i> . <b>See separate documentation on mEDRA Query Request Message.</b>
QueryRequestMessage/QueryRequest/ForwardLinkingQuery/DOI		string (6-2048)	0-1	The DOI of the publication for which the user wants to query CrossRef to retrieve the list of the DOIs of other publications in CrossRef that cited it. Please be advised that a valid DOI is an alphanumeric string in the format 10.prefix/suffix. (e.g.: 10.abc123/cde456)

mEDRA Query Request Message: attributes					
Element	Attribute	Cardinality	Format/Values	Default	
<b>Query</b>	<i>enable-multiple-hits</i>	0-1	false	(default)	
			true		
			one_hit_per_rule		
			one_hit_per_rule		
			exact		
	<i>key</i>	1	string(1-128)		
	<i>list-components</i>	0-1	false	(default)	
			true		
<i>expanded-results</i>	0-1	false	(default)		
		true			
<i>forward-match</i>	0-1	false	(default)		
		true			
<b>ISSN</b>	<i>match</i>	0-1	optional	(default)	
			exact		
<b>JournalTitle</b>	<i>match</i>	0-1	optional	(default)	
			fuzzy	(default)	
			exact		
<b>AuthorName</b>	<i>search-all-authors</i>	0-1	false	(default)	
			true		
	<i>match</i>	0-1	optional	(default)	
			fuzzy	(default)	
			null		
			exact		

<b>JournalIssueNumber</b>				
	<i>match</i>	0-1	fuzzy	(default)
			exact	
<b>JournalVolumeNumber</b>				
	<i>match</i>	0-1	optional	(default)
			fuzzy	(default)
			exact	
<b>NumberWithinSeries</b>				
	<i>match</i>	0-1	optional	(default)
			fuzzy	(default)
			exact	
<b>EditionNumber</b>				
	<i>match</i>	0-1	fuzzy	(default)
			exact	
<b>FirstPageNumber</b>				
	<i>match</i>	0-1	optional	(default)
			null	
			exact	
<b>JournalIssueDate</b>				
	<i>match</i>	0-1	optional	(default)
			exact	
<b>PublicationDate</b>				
	<i>match</i>	0-1	optional	(default)
			exact	
<b>ArticleTitle</b>				
	<i>match</i>	0-1	fuzzy	(default)
			exact	
<b>ComponentNumber</b>				
	<i>match</i>	0-1	fuzzy	(default)
			exact	

<b>BookTitle</b>				
	<i>match</i>	0-1	optional	(default)
			fuzzy	(default)
			exact	
<b>ISBN</b>				
	<i>match</i>	0-1	optional	(default)
			exact	
<b>TitleOfSeries</b>				
	<i>match</i>	0-1	optional	(default)
			fuzzy	(default)
			null	
			exact	
<b>ForwardLinkingQuery</b>				
	<i>alert</i>	0-1	false	(default)
			true	
	<i>start_date</i>	0-1	(YYYY-MM-DD)	
	<i>end_date</i>	0-1	(YYYY-MM-DD)	