

GATEWAY TO RESEARCH (GTRAPI AND CERIF ONLY) APIS

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EXECUTIVE SUMMARY

This document contains a technical summary of the APIs available in the GTR release of August 2015. More API's will be added and the functioning of existing API's will change over time and readers are asked to check the GtR web portal to ensure they are working from the most current version.

At the time of writing, the GtR project provided two APIs: GtRAPI and CERIF. Both produce outputs in XML and JSON formats. The GtRAPI is the same API that is used by the web portal and there is a direct correlation between the visible information on the web portal screens and the output from the API. The CERIF API produces XML output using the CERIF schema, provides access to all¹ the data currently held in the GtR Database and is stored in a highly structured format. Although JSON output for the CERIF API is available we would advise people to only use the XML interface. The cerif data is not currently being updated although the API is still available.

¹ Journal titles are not available in the CERIF API due to data quality issues.

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API COMMON FEATURES

In this section we detail some of the common elements between the APIs, such as available parameters that can be used against some resources and how pagination within result sets.

REQUEST PARAMETERS SUMMARY

Both APIs utilise some or all of the request parameters below as part of the URL.

The following request summary provides details and examples:

Request Parameter & Defaults	Description	Example
term <i>No default – mandatory parameter.</i>	<p>Only used with the Search Resource.</p> <p>The term or phrase to be searched for.</p> <p>Search terms must be URL encoded (UTF-8).</p> <p>For more about search terms and the search engine vocabulary see About Searching.</p>	<p>To search for the phrase:</p> <p>“Oxford University”</p> <p>encoded</p> <p>term=%22Oxford%20University%22</p>
fetchSize <i>Default: 25 – not mandatory.</i>	<p>Only used on paged requests.</p> <p>Can have a value from 25 to 100.</p> <p>See How Paginatlon Works.</p>	<p>fetchSize=50</p>
page <i>Default: 1 – not mandatory.</i>	<p>Only used on paged requests.</p> <p>Which page of the current paged result set to fetch.</p> <p>See How Paginatlon Works.</p>	<p>page=2</p>
selectedSortOrder <i>Default: DESC – not mandatory.</i> <i>GTRAPI Only</i>	<p>Can have the value ASC or DESC.</p> <p>See How Paginatlon Works.</p>	<p>selectedSortOrder=ASC</p>
selectedSortableField <i>No default – not mandatory.</i> <i>GTRAPI Only</i>	<p>Value depends on the Resource utilised.</p> <p>Initial request to the Resource will include a listing of sortable fields in the response.</p> <p>See How Paginatlon Works.</p>	<p>selectedSortableField=<x></p> <p>Where <x> is a field provided in the gtr:sortableFields list from the initial response.</p>
selectedFacets <i>No default – not mandatory.</i> <i>GTRAPI Only</i>	<p>Only used with the Search Resource.</p> <p>Comma separated list of facet Ids that are to be applied to the Search.</p>	<p>selectedFacets=cmVnaW9ufFNvdXRolEVhc3R8c3RyaW5n</p> <p>Facet IDs can be found from the facets returned in the gtr:facetGroup list provided from the initial response</p>

Request Parameter & Defaults	Description	Example
fields <i>Default all fields are searched – not mandatory.</i> GTRAPI Only	Only used with the Search Resource Common delimited list of fields to be searched for the provided term	fields=<x> where <x> is a common delimited list of fields in the gtr:searchableFields list from the the initial response

HOW PAGINATION WORKS

Paginated resources will be limited to 25 items by default. You can specify further pages with the page parameter. You can also set a custom page size up to 100 with the fetchSize parameter. For example:

<http://gtr.rcuk.ac.uk/search/person?term=paul&page=1&fetchSize=25>

The pagination details are contained within three HTTP response headers:

1. **Link Header.** (As defined by RFC 5988: <http://tools.ietf.org/html/rfc5988>).

For the search above the link header value is shown below:

```
<http://gtr.rcuk.ac.uk/search/person?term=paul&fields=pro.id,pro.t,pro.a,per.fn,per.on,per.sn,per.org.n,per.pro.t,per.pro.abs,pub.t,pub.a,org.n&page=1&fetchSize=25&selectedSortableField=score&selectedSortOrder=DESC>;rel=first,
<http://gtr.rcuk.ac.uk/search/person?term=paul&fields=pro.id,pro.t,pro.a,per.fn,per.on,per.sn,per.org.n,per.pro.t,per.pro.abs,pub.t,pub.a,org.n&page=37&fetchSize=25&selectedSortableField=score&selectedSortOrder=DESC>; rel=last,
<http://gtr.rcuk.ac.uk/search/person?term=paul&fields=pro.id,pro.t,pro.a,per.fn,per.on,per.sn,per.org.n,per.pro.t,per.pro.abs,pub.t,pub.a,org.n&page=2&fetchSize=25&selectedSortableField=score&selectedSortOrder=DESC>; rel=next
rel=next
```

The possible rel values are:

- a. **next:** Shows the URL of the next page of results.
- b. **last:** Shows the URL of the last page of results.
- c. **first:** Shows the URL of the first page of results.
- d. **previous:** Shows the URL of the previous page of results.

If no 'next' or 'previous' relationship exists, then these will be omitted from the Link header. The 'first' and 'last' relationships will always be present for paged requests that return an HTTP 200.

2. **Link-Pages.** An integer defining the total number of pages: Link-Pages. At the time of writing the above search returns the integer: 37
3. **Link-Records.** An integer defining the total number of records: Link-Records : At the time of writing the above search returns the integer: 911

GTRAPI OVERVIEW

Refer to the GtRAPI XML Schema for details on Response Entities detailed below. The XML schema for this interface can be found at: <http://gtr.rcuk.ac.uk/api>

The GtRAPI exposes the following Resources:

GtR Resource	Description	Details
search	Search projects, publications, people or organisations with a specific search term.	GtR Search Resource
organisation	Retrieve all organisations or a specific organisation by its identifier.	Organisation Resource
person	Retrieve all people or a specific person by their identifier.	Person Resource
project	Retrieve all projects or a specific project by its identifier.	Project Resource
publication	Retrieve all publications or a specific publication by its identifier.	Publication Resource

GTR SEARCH RESOURCE

The Search Resource can search through the four GTR Resource Entities. These are Project, Person, Publication and Organisation.

The base URL for the search interfaces follows the following standard:

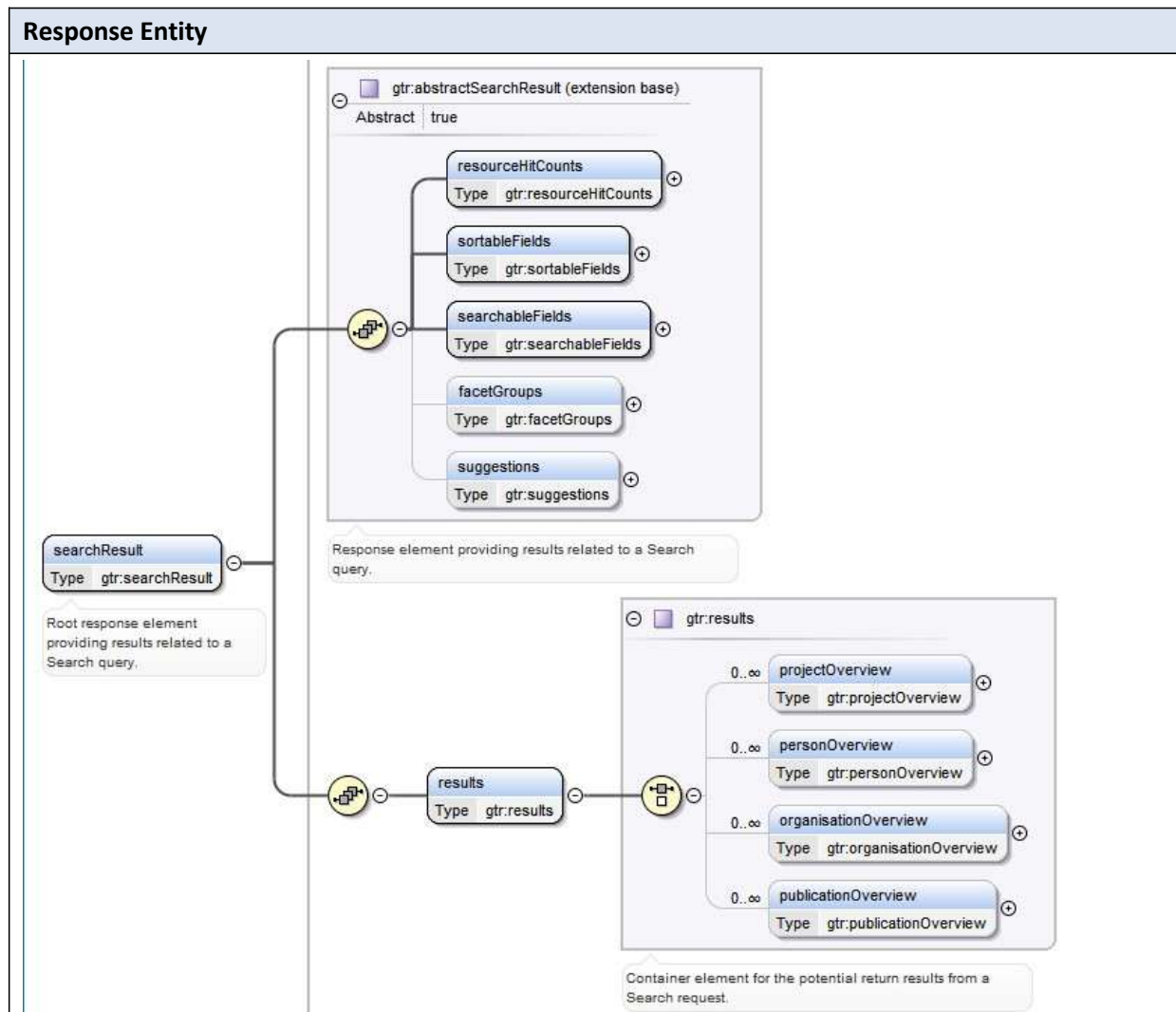
`http://host:port/search/{resource entity}`

where the resource entity is one of the following:

- project
- person
- publication
- organisation

PLEASE NOTE: the service is case sensitive so all resources must be in lowercase.

Search Projects	
Description	Search all projects for a specific term
Paged?	YES
URL can be viewed in Web Portal?	YES
Base URL	http://host:port/search/project
HTTP Method	GET
Request Parameters	term [mandatory] fetchSize page selectedSortOrder selectedSortableField selectedFacets fields See Request Parameters Summary.
Example	http://gtr.rcuk.c.uk/search/project?term=mouse&page=2&fetchSize=25&selectedSortableField=_score&selectedSortOrder=DESC&selectedFacets=YW1vdW50fC05MjlzMzcyMDM2ODU0Nzc1ODA4XzEwMDAwMHxyYW5nZQ==&fields=project.abs

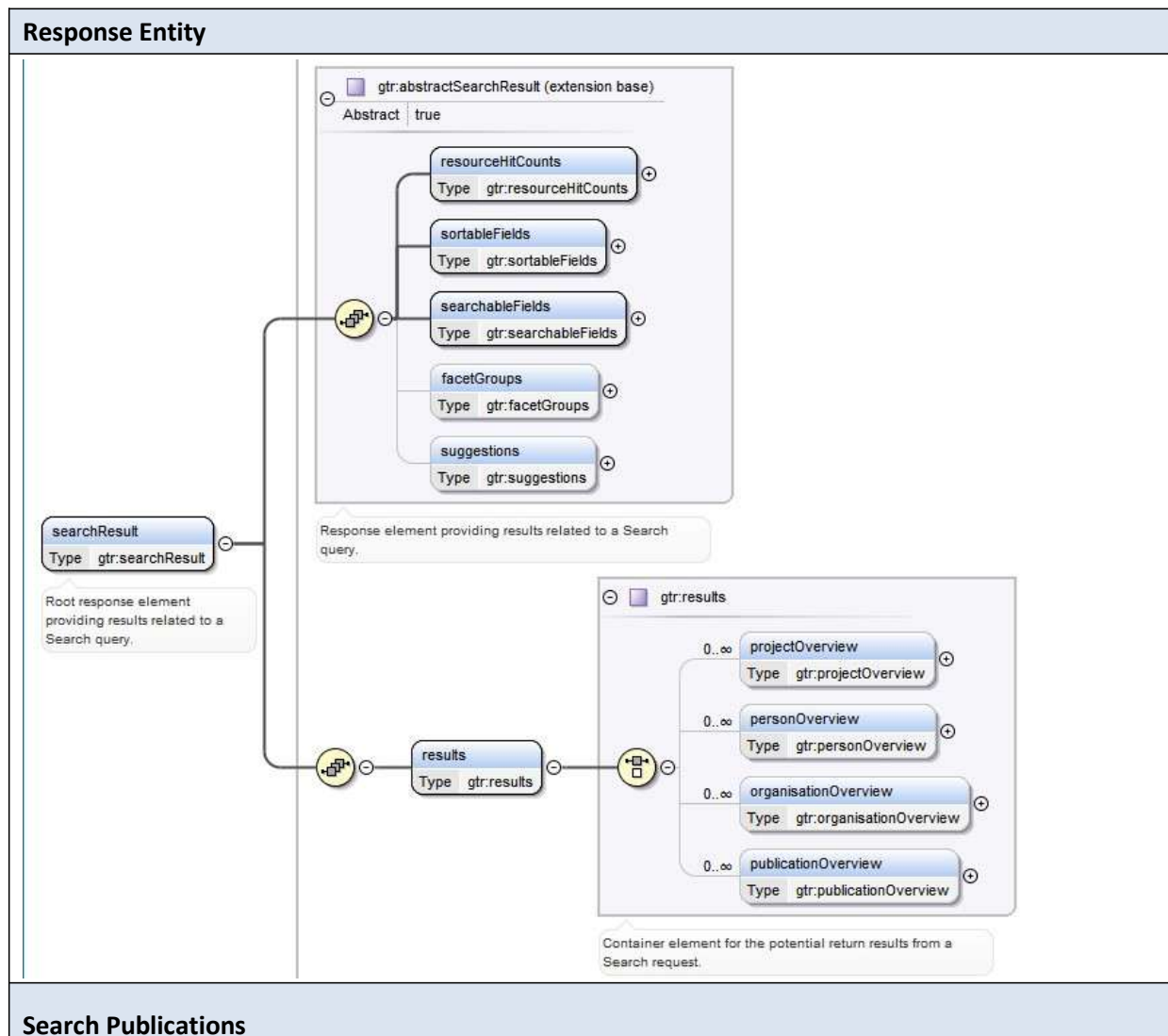


Important:

- The `gtr:project` response elements contained within `gtr:projectOverview` will only have the following elements/attributes populated:
 - `url`
 - `gtr:id`
 - `gtr:title`
 - `gtr:fund`
- the `gtr:personRoles` response elements within the `gtr:projectOverview` will only contain data for the `PRINCIPAL_INVESTIGATOR` role.

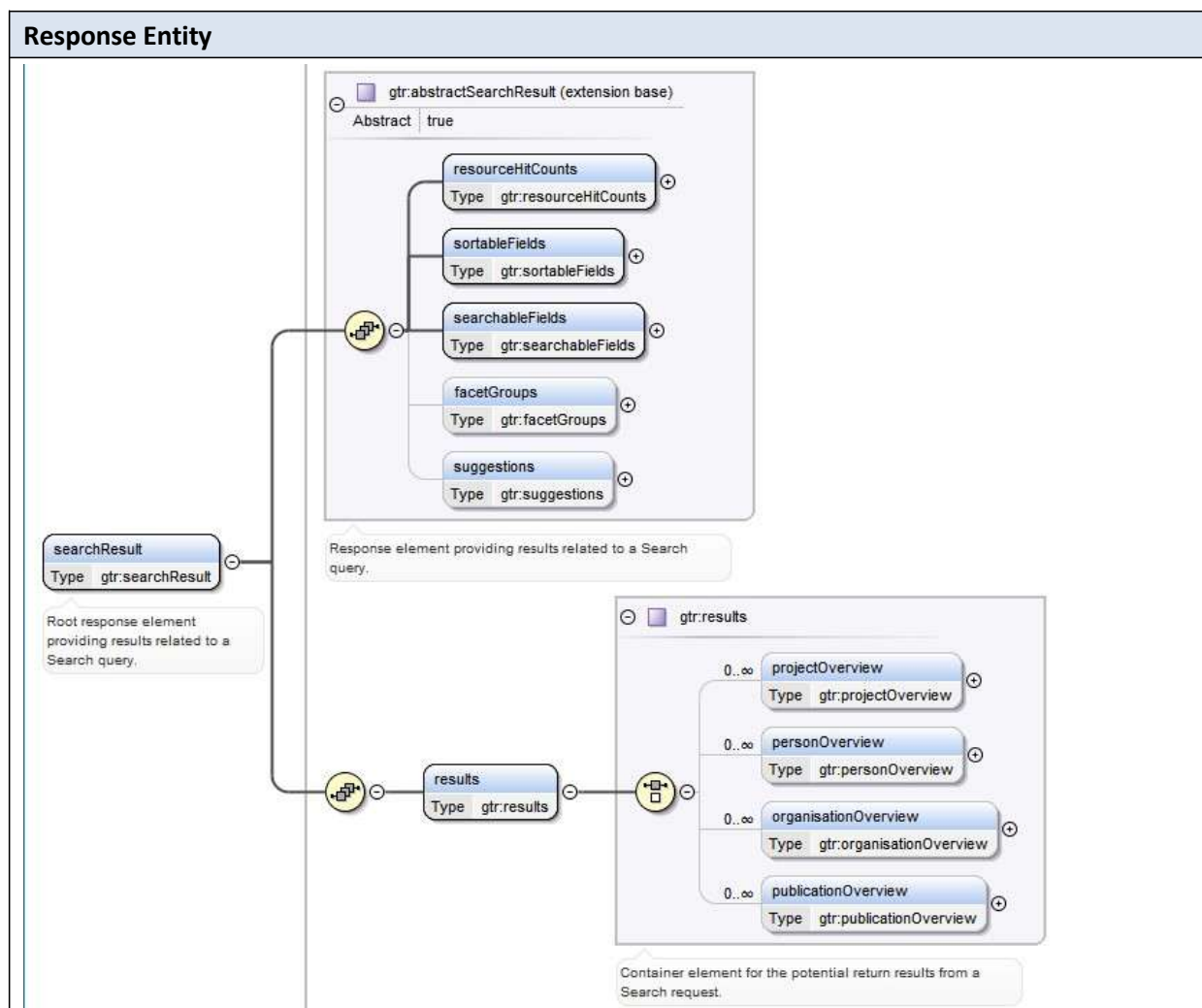
Note: a Placeholder for an abstract snippet exists in the `projectOverview` schema but is currently not populated.

Search Person	
Description	Search all people for a specific term
Paged?	YES
URL can be viewed in Web Portal?	YES
Base URL	http://host:port/search/person
HTTP Method	GET
Request Parameters	term [mandatory] fetchSize page selectedSortOrder selectedSortableField selectedFacets fields See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/search/person?term=mouse&selectedFacets=c3VybmFtZXxqb2huc29ufHN0cmlyZw==&page=1&fetchSize=25&selectedSortableField=per.sn&selectedSortOrder=DESC&fields=per.on,per.fn,per.sn,per.org.n,per.pro.abs,per.pro.t



Search Publications

Description	Search all publications for a specific term
Paged?	YES
URL can be viewed in Web Portal?	YES
Base URL	http://host:port/search/publication
HTTP Method	GET
Request Parameters	term [mandatory] fetchSize page selectedSortOrder selectedSortableField fields See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/search/publication?term=mouse&page=1&fetchSize=25&selectedSortableField=&selectedSortOrder=&fields=per.pro.abs

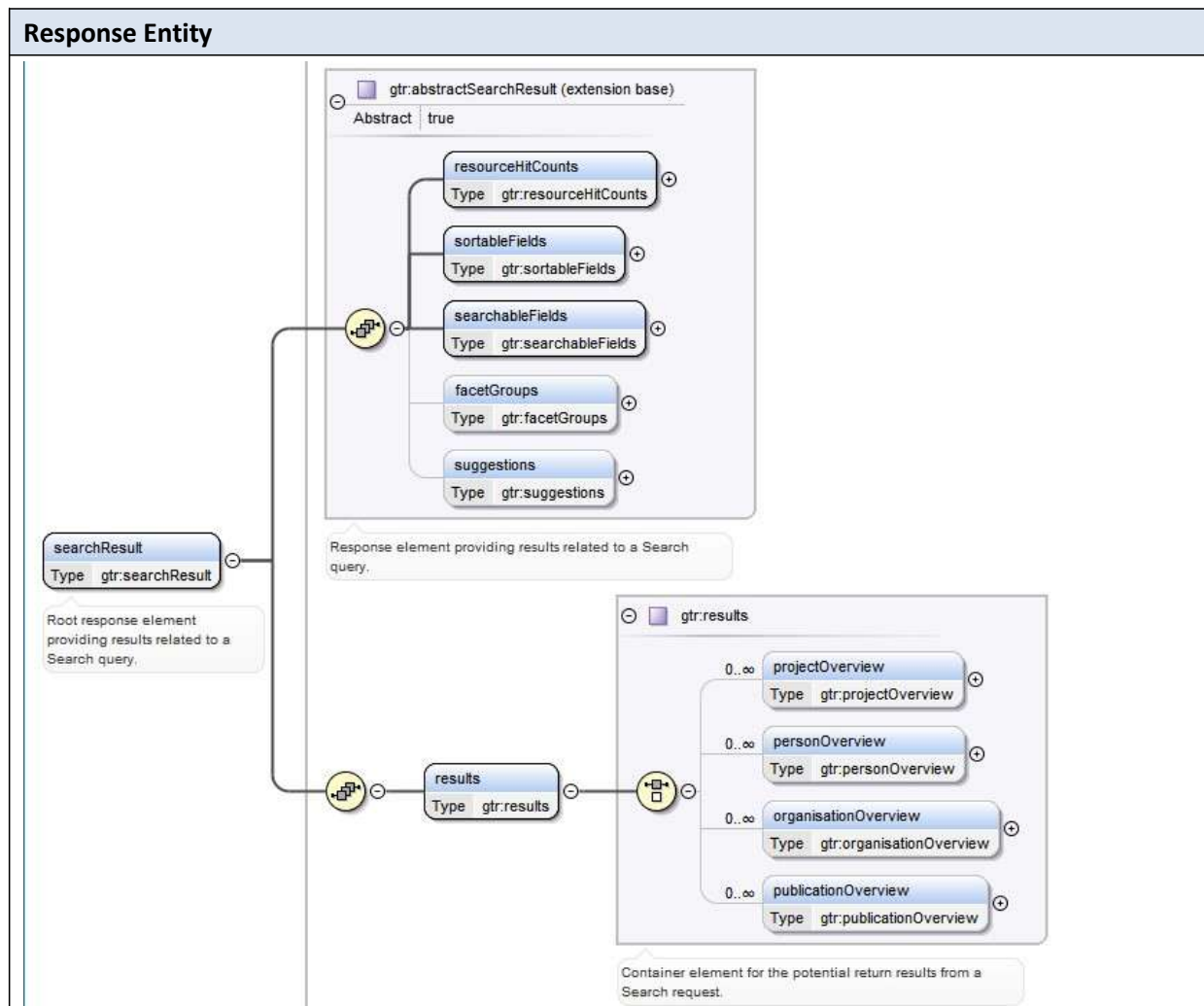


Important:

- The `gtr:project` response elements contained within `gtr:publicationOverview` will only have the following elements/attributes populated:
 - `url`
 - `gtr:id`
 - `gtr:title`
 - `gtr:grantCategory`
 - `gtr:fund`

Note: a Placeholder for an abstract snippet exists in the `publicationOverview` schema but is currently not populated.

Search Organisation	
Description	Search all organisations for a specific term
Paged?	YES
URL can be viewed in Web Portal?	YES
Base URL	http://host:port/search/organisation
HTTP Method	GET
Request Parameters	term fetchSize page selectedSortableField fields See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/search/organisation?term=mouse&page=1&fetchSize=25&selectedSortableField=&selectedSortOrder=&fields=org.n

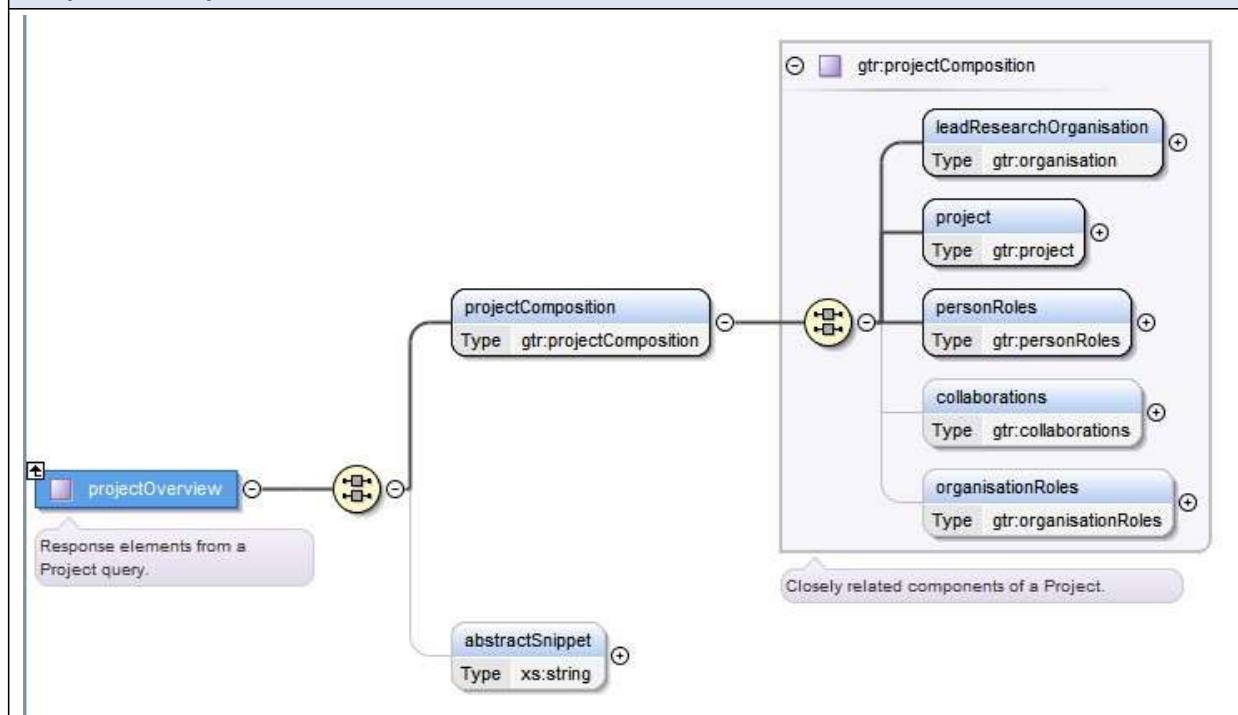


PROJECT RESOURCE

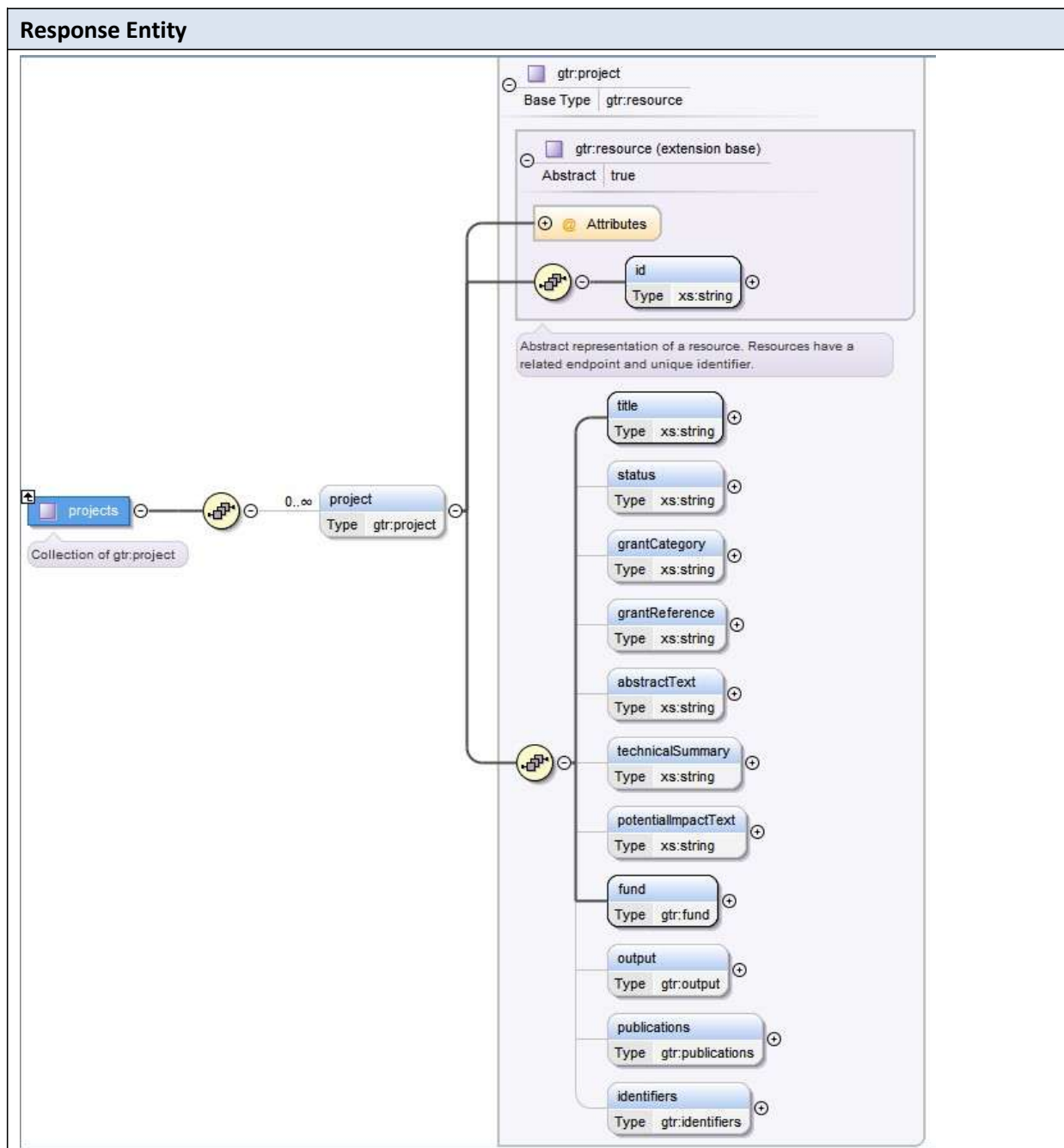
The Project Resource allows you to fetch a specific project by id, or a paged listing of all projects.

Project By ID	
Description	Retrieve a project by its ID
Paged?	NO
URL can be viewed in Web Portal?	YES
Base URL	<a href="http://host:port/projects/<id>">http://host:port/projects/<id>
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/projects?ref=EP/F029624/1

Response Entity



Project Listing	
Description	Retrieve all projects
Paged?	YES
URL can be viewed in Web Portal?	NO
Base URL	http://host:port/project
HTTP Method	GET
Request Parameters	fetchSize page See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/projects?page=2&fetchSize=25

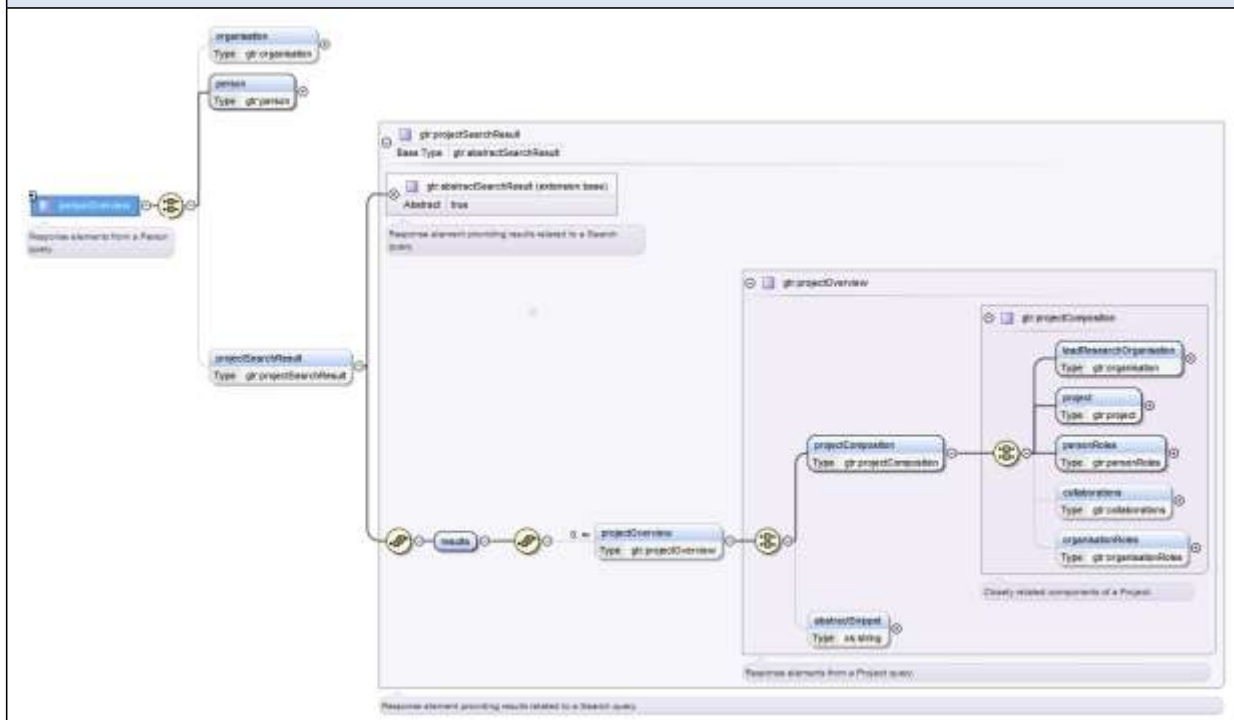


PERSON RESOURCE

The Person Resource allows you to fetch a specific person by id, or a paged listing of all people. Within a specific person resource it is possible to search the projects related to a specific person by using the same syntax used to for search projects (see **Search Projects**)

Person By ID	
Description	Retrieve a person by their ID
Paged?	NO
URL can be viewed in Web Portal?	YES
Base URL	http://host:port/person/<id>
Request Parameters	term fetchSize page selectedSortOrder selectedSortableField selectedFacets fields See Request Parameters Summary.
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/person/E878C1F3-5057-4935-8DA3-AC625C55A7CF?term=&selectedFacets=c3RhcnR8MTMyNTM3NjAwMDAwMF8xMzU2OTk4Mzk5MDU5fHJhbmdl&page=1&fetchSize=25&selectedSortableField=&selectedSortOrder=&fields=

Response Entity

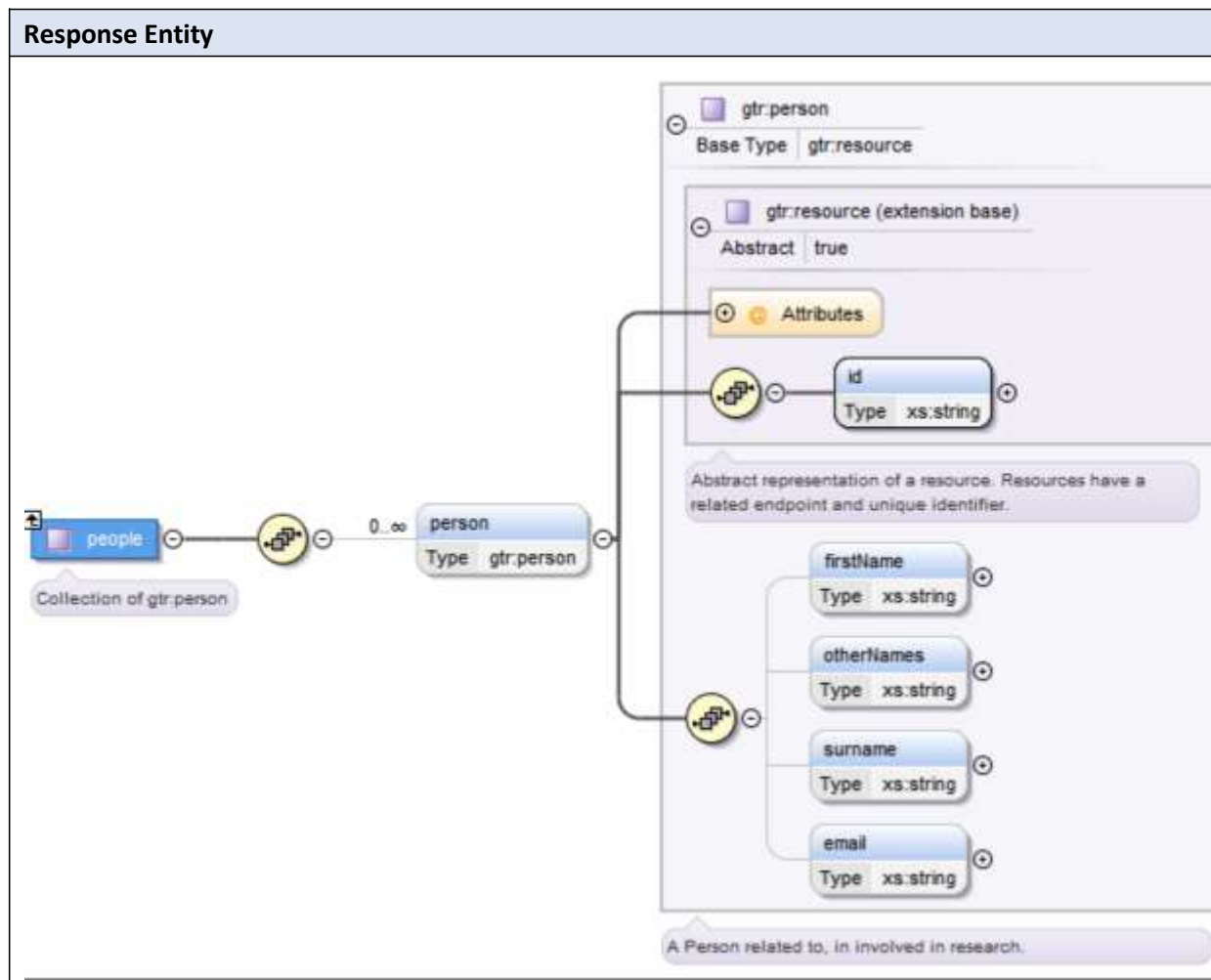


Important: The `gtr:project` response elements contained within `gtr:personOverview` will only have the following elements/attributes populated:

- url

- gtr:id
- gtr:title
- gtr:fund

Person Listing	
Description	Retrieve all people
Paged?	YES
URL can be viewed in Web Portal?	NO
Base URL	http://host:port/person
HTTP Method	GET
Request Parameters	fetchSize page See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/person?page=2&fetchSize=25

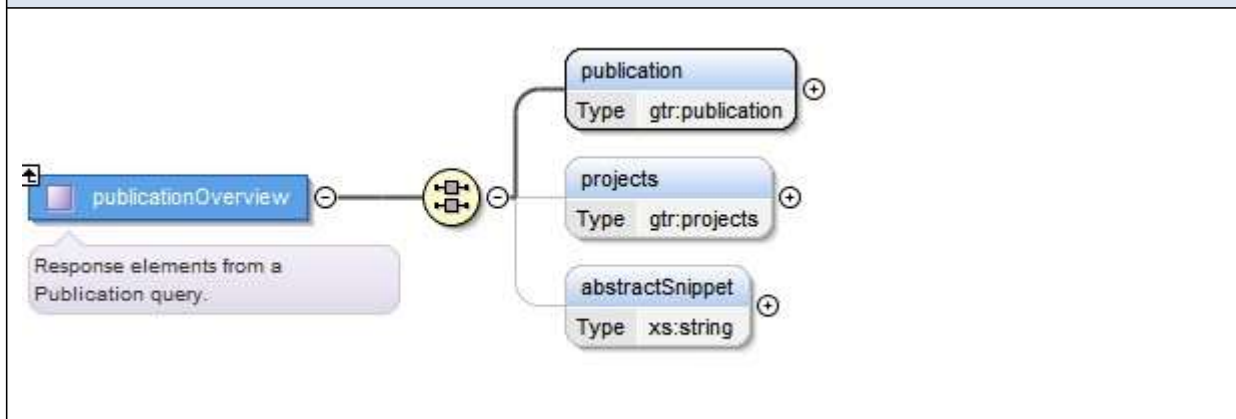


PUBLICATION RESOURCE

The Publication Resource allows you to fetch a specific publication by id, or a paged listing of all publications.

Publication By ID	
Description	Retrieve a publication by its ID
Paged?	NO
URL can be viewed in Web Portal?	YES
Base URL	http://host:port/publication/<id>
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/publication/21B244B7-6C82-4F92-9DFC-577C1E7831A8

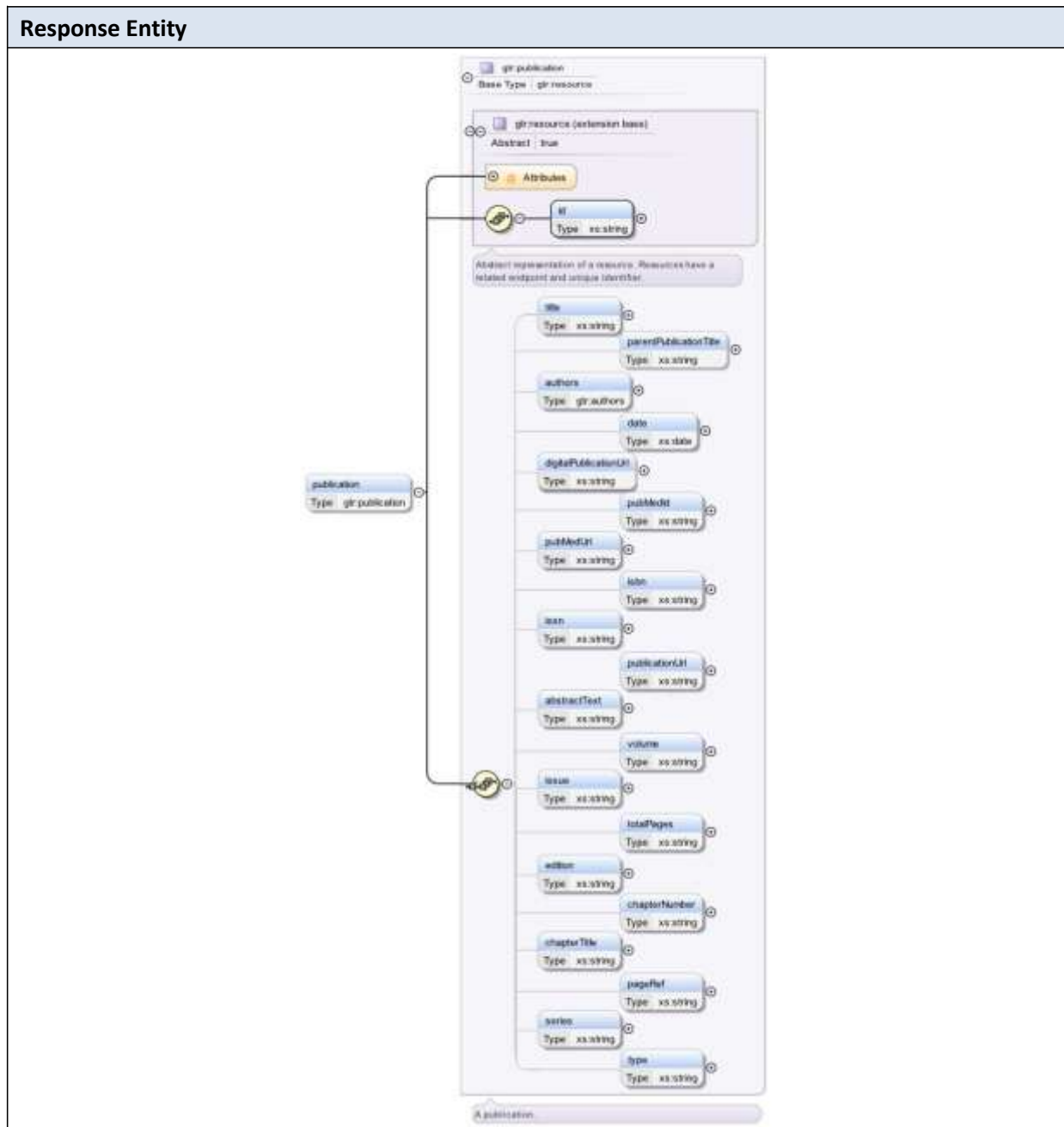
Response Entity



Important: The `gtr:project` response elements contained within `gtr:publicationOverview` will only have the following elements/attributes populated:

- url
- gtr:id
- gtr:title
- gtr:fund

Publication Listing	
Description	Retrieve all publications
Paged?	YES
URL can be viewed in Web Portal?	NO
Base URL	http://host:port/publication
HTTP Method	GET
Request Parameters	fetchSize page See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/publication?page=2&fetchSize=25

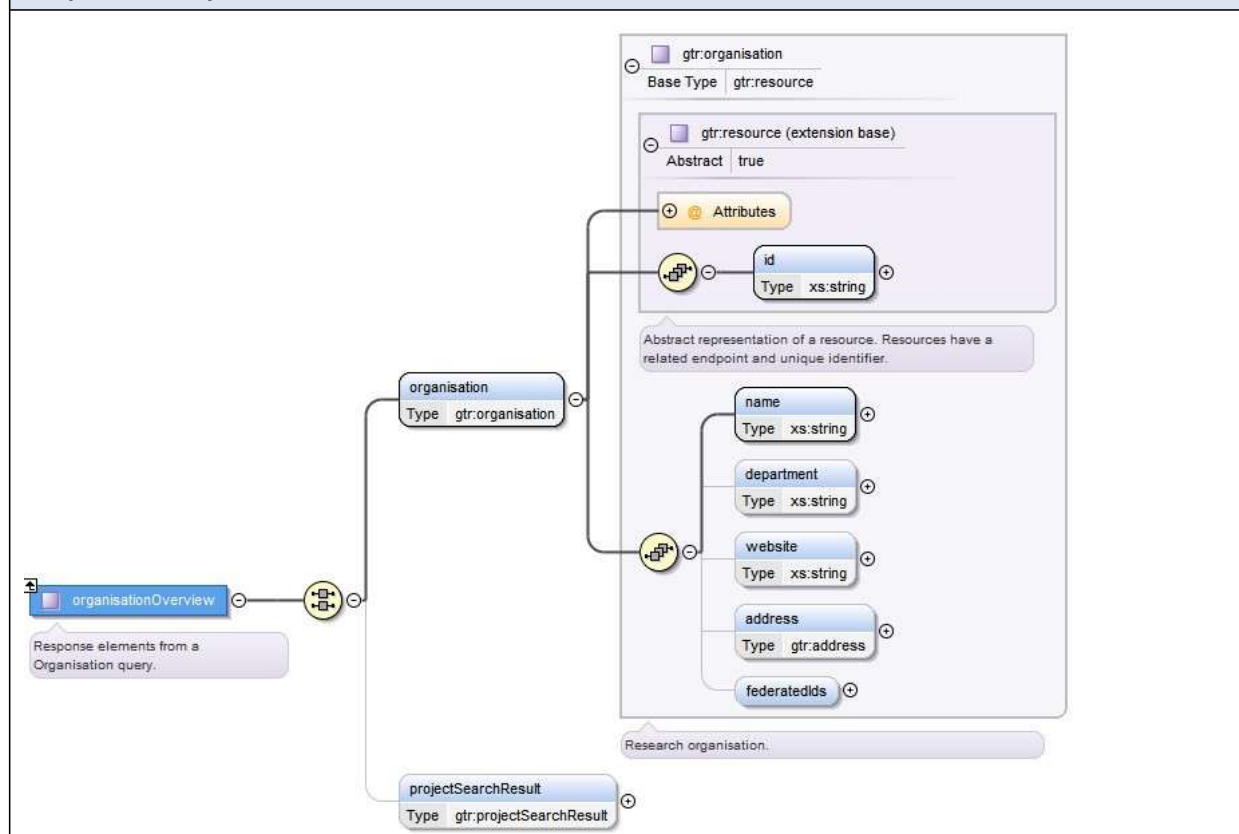


ORGANISATION RESOURCE

The Organisation Resource allows you to fetch a specific organisation by id, or a paged listing of all organisations. Within a specific organisation resource it is possible to search the projects related to a specific person by using the same syntax used to for search projects (see **Search Projects**)

Organisation By ID	
Description	Retrieve a organisation by its ID
Paged?	NO
URL can be viewed in Web Portal?	YES
Base URL	<a href="http://host:port/organisation/<id>">http://host:port/organisation/<id>
Request Parameters	term fetchSize page selectedSortOrder selectedSortableField selectedFacets fields See Request Parameters Summary.
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/organisation/30A429E3-83B7-4E41-99C0-14A144F07DFE/?term=&selectedFacets=c3RhdHVzfENsb3NIZHxzdhJpbmc=&fields=&fetchSize=25&page=1&selectedSortableField=project.endDate&selectedSortOrder=DESC

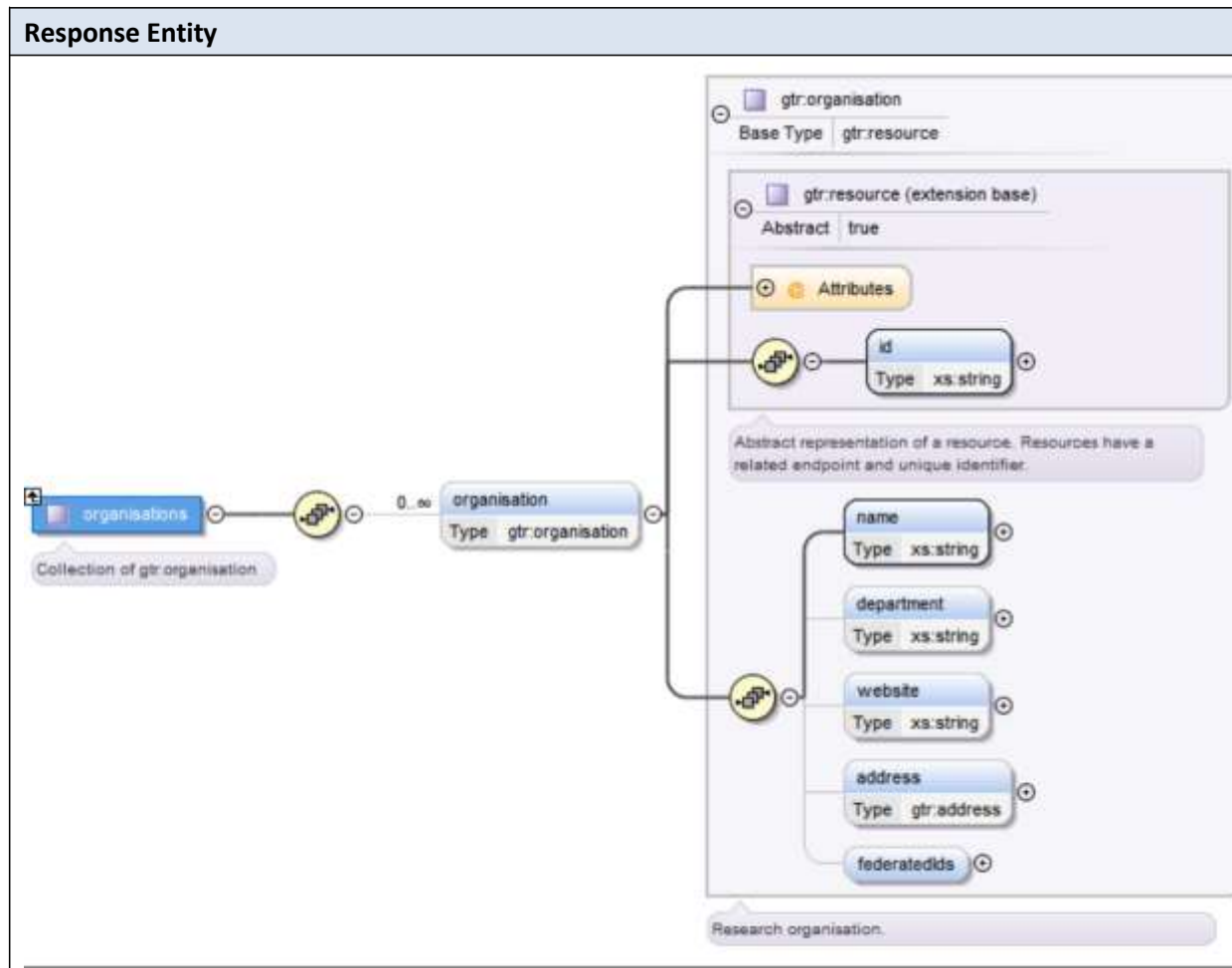
Response Entity



Important: The `gtr:project` response elements contained within `gtr:publicationOverview` will only have the following elements/attributes populated:

- `url`
- `gtr:id`
- `gtr:title`
- `gtr:fund`

Organisation Listing	
Description	Retrieve all organisations
Paged?	YES
URL can be viewed in Web Portal?	NO
Base URL	http://host:port/publication
HTTP Method	GET
Request Parameters	fetchSize page See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/organisation?page=2&fetchSize=25



CERIF API OVERVIEW

Refer to the CERIF XML Schema for details on Response Entities details below.

The CERIF API exposes the following Resources:

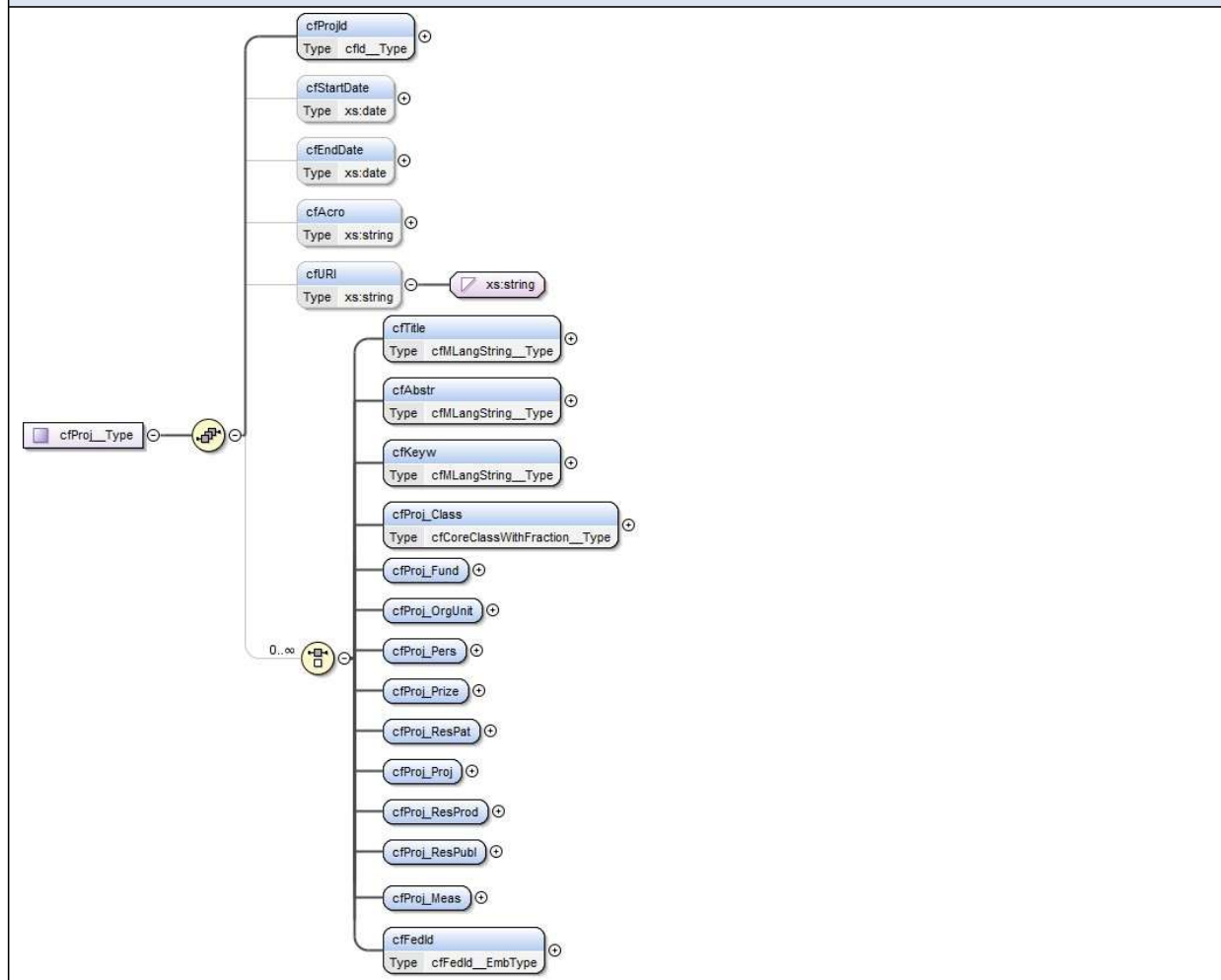
CERIF Resource	Description	Request Details
search	Search the CfProj, CfResPubl, CfPers or CfOrgUnit entities with a specific search term.	Cerif Search Resource
cfclass	Retrieve all classifications or a specific classification by its identifier.	CfClass Resource
cfclassscheme	Retrieve all classification schemes or a specific classification scheme by its identifier.	CfClassScheme Resource
cffund	Retrieve a specific CfFund entity by its identifier.	CfFund Resource
cfmeas	Retrieve a specific CfMeas entity by its identifier.	CfMeas Resource
cforgunit	Retrieve all CfOrgUnit entities or a specific CfOrgUnit entity by its identifier.	CfOrgUnit Resource
cfpaddr	Retrieve a specific CfPAddr entity by its identifier.	CfPAddr Resource
cfpers	Retrieve all CfPers entities or a specific CfPers entity by its identifier.	CfPers Resource
cfproj	Retrieve all CfProj entities or a specific CfProj entity by its identifier.	CfProj Resource
cfrespat	Retrieve a specific CfResPat entity by its identifier.	CfResPat Resource
cfresprod	Retrieve a specific CfResProd entity by its identifier.	CfResProd Resource
cfrespubl	Retrieve all CfResPubl entities or a specific CfResPubl entity by its identifier.	CfResPubl Resource

CERIF SEARCH RESOURCE

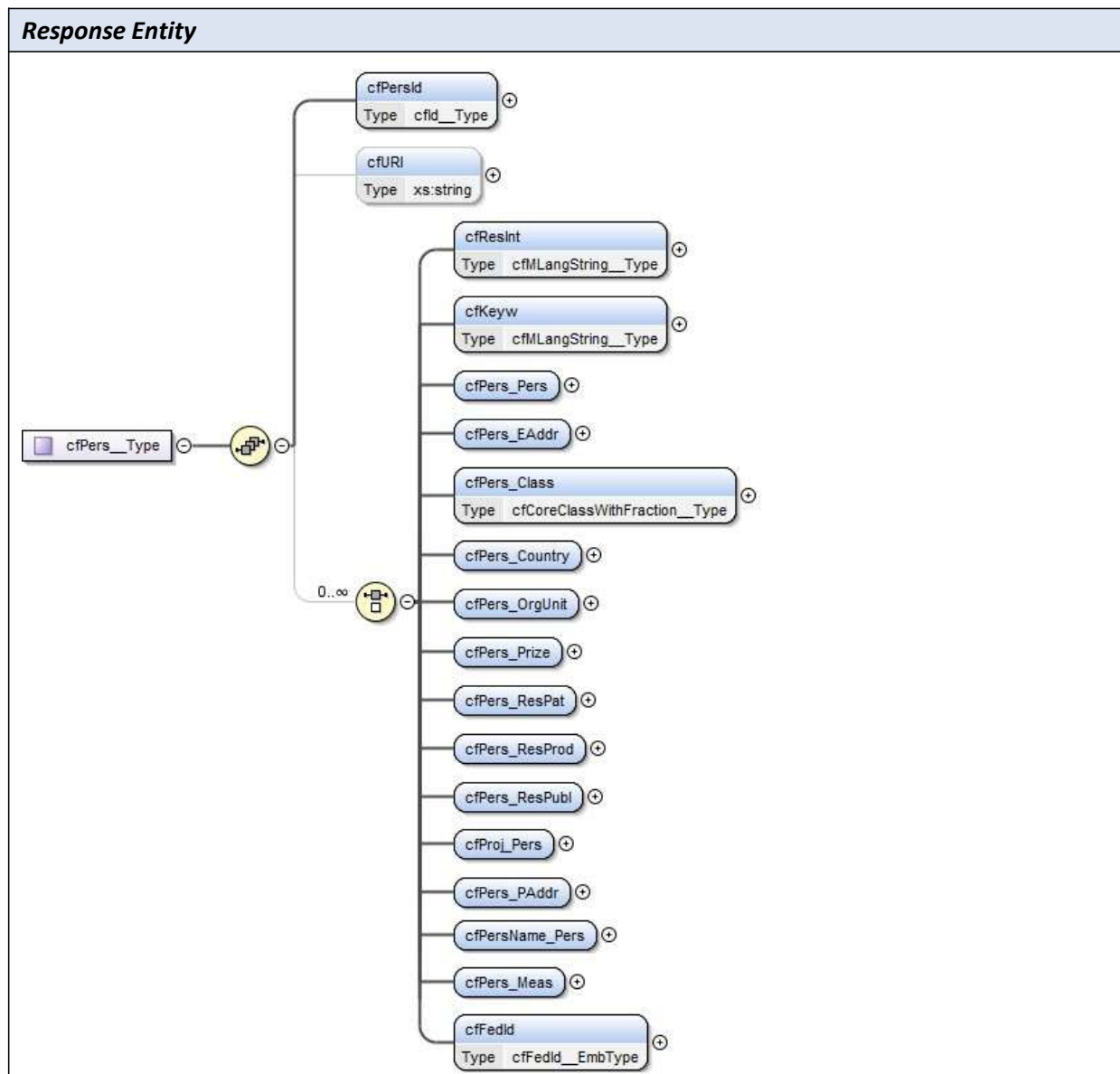
The CERIF Search Resource can search through 4 CERIF Resource Entities: CfProj, CfPers, CfResPubl and CfOrgUnit.

Search CfProj	
Description	Search all projects for a specific term
Paged?	YES
Base URL	http://host:port/cerif/search/cfproj
HTTP Method	GET
Request Parameters	term [mandatory] fetchSize page selectedSortOrder selectedSortField See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/cerif/search/cfproj?term=mouse&page=2&fetchSize=25&selectedSortField=Relevance&selectedSortOrder=DESC

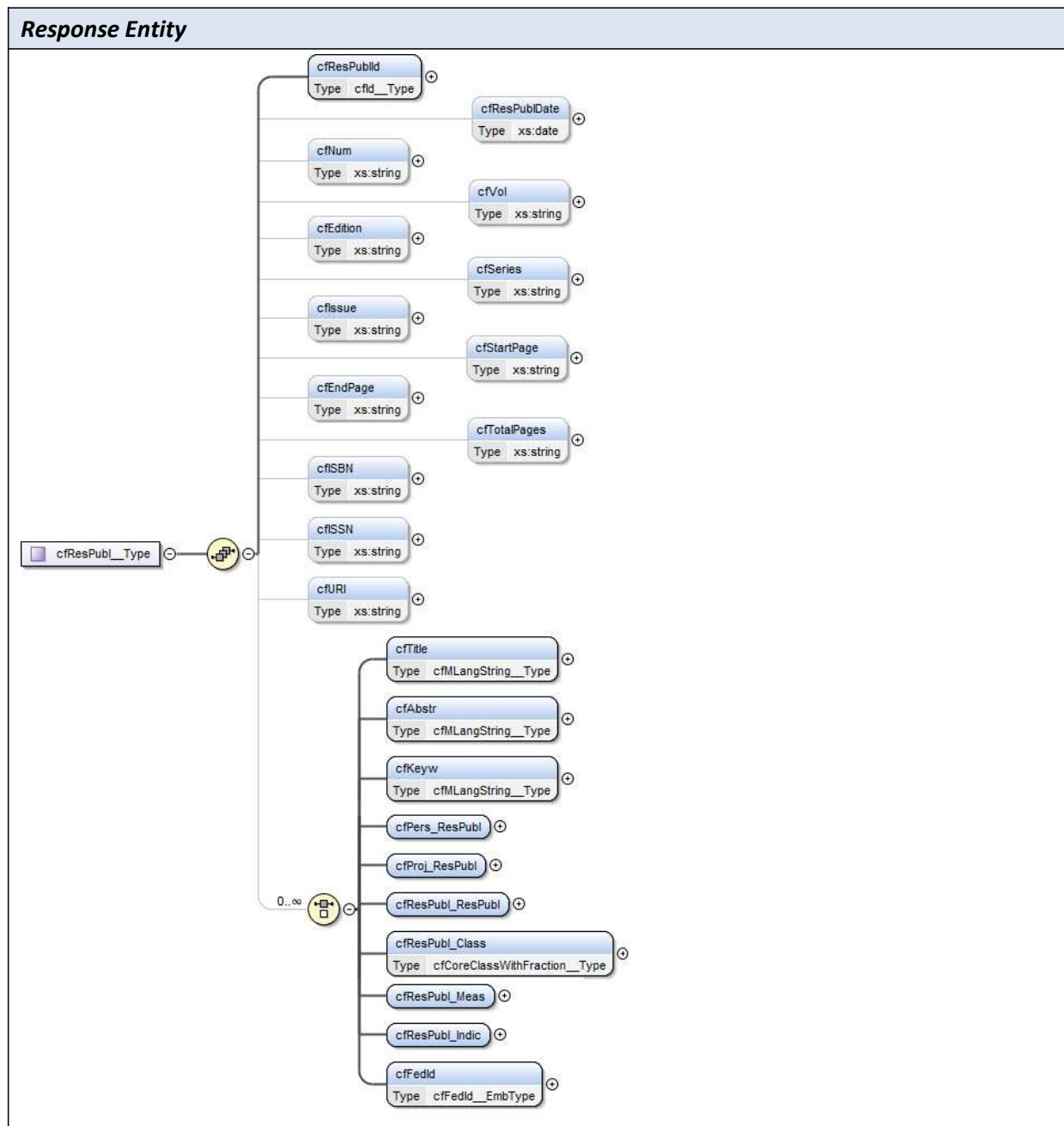
Response Entity



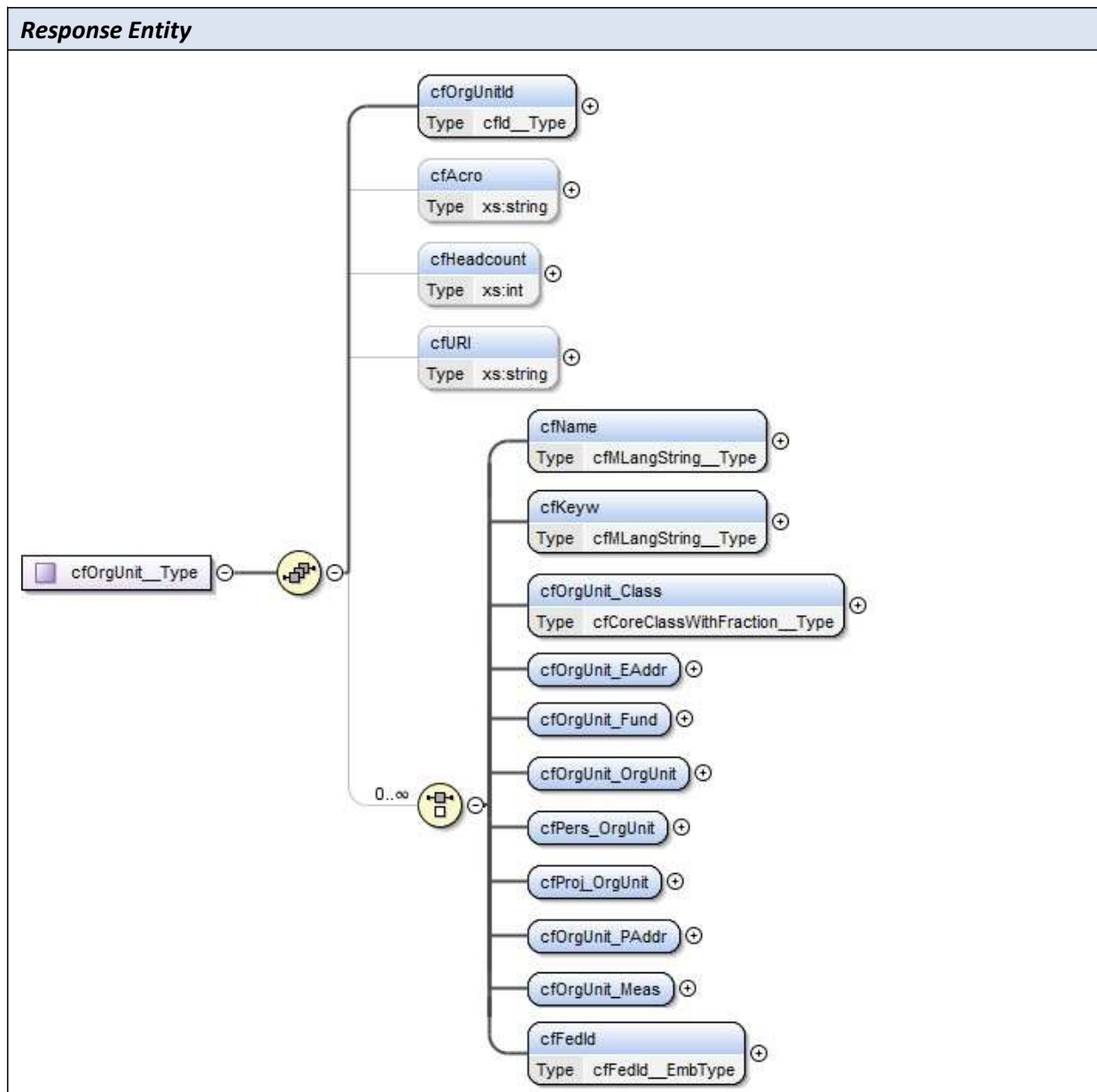
Search CfPers	
Description	Search all people for a specific term
Paged?	YES
Base URL	http://host:port/cerif/search/cfpers
HTTP Method	GET
Request Parameters	term fetchSize page See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/cerif/search/cfpers?term=mouse&page=2&fetchSize=25



Search CfResPubl	
Description	Search all publications for a specific term
Paged?	YES
Base URL	http://host:port/cerif/search/cfrespubl
HTTP Method	GET
Request Parameters	term fetchSize page See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/cerif/search/cfrespubl?term=mouse&page=2&fetchSize=25



Search CfOrgUnit	
Description	Search all organisations for a specific term
Paged?	YES
Base URL	http://host:port/cerif/search/cforgunit
HTTP Method	GET
Request Parameters	term fetchSize page See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/cerif/search/cforgunit?term=mouse&page=2&fetchSize=25

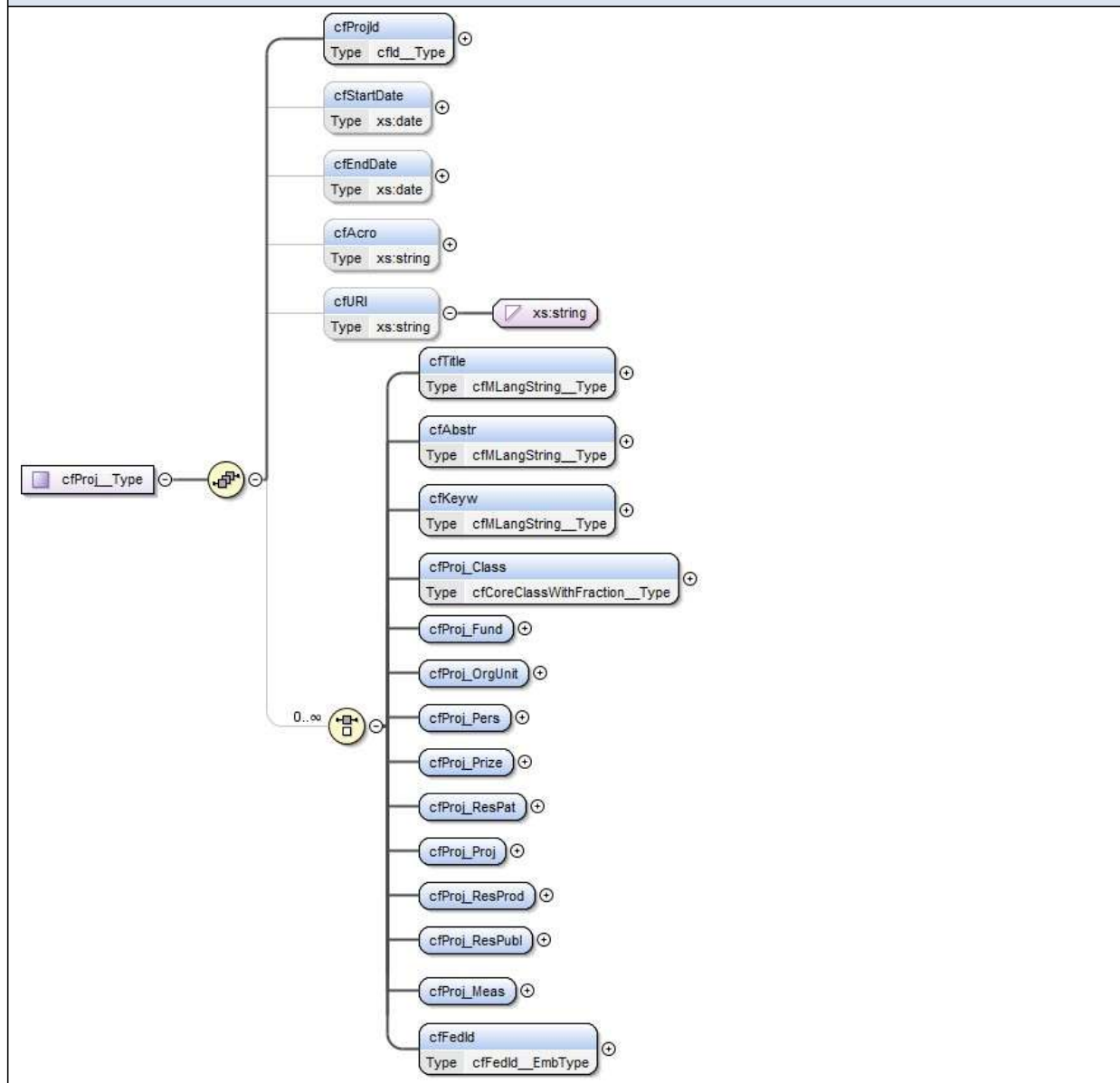


CFPROJ RESOURCE

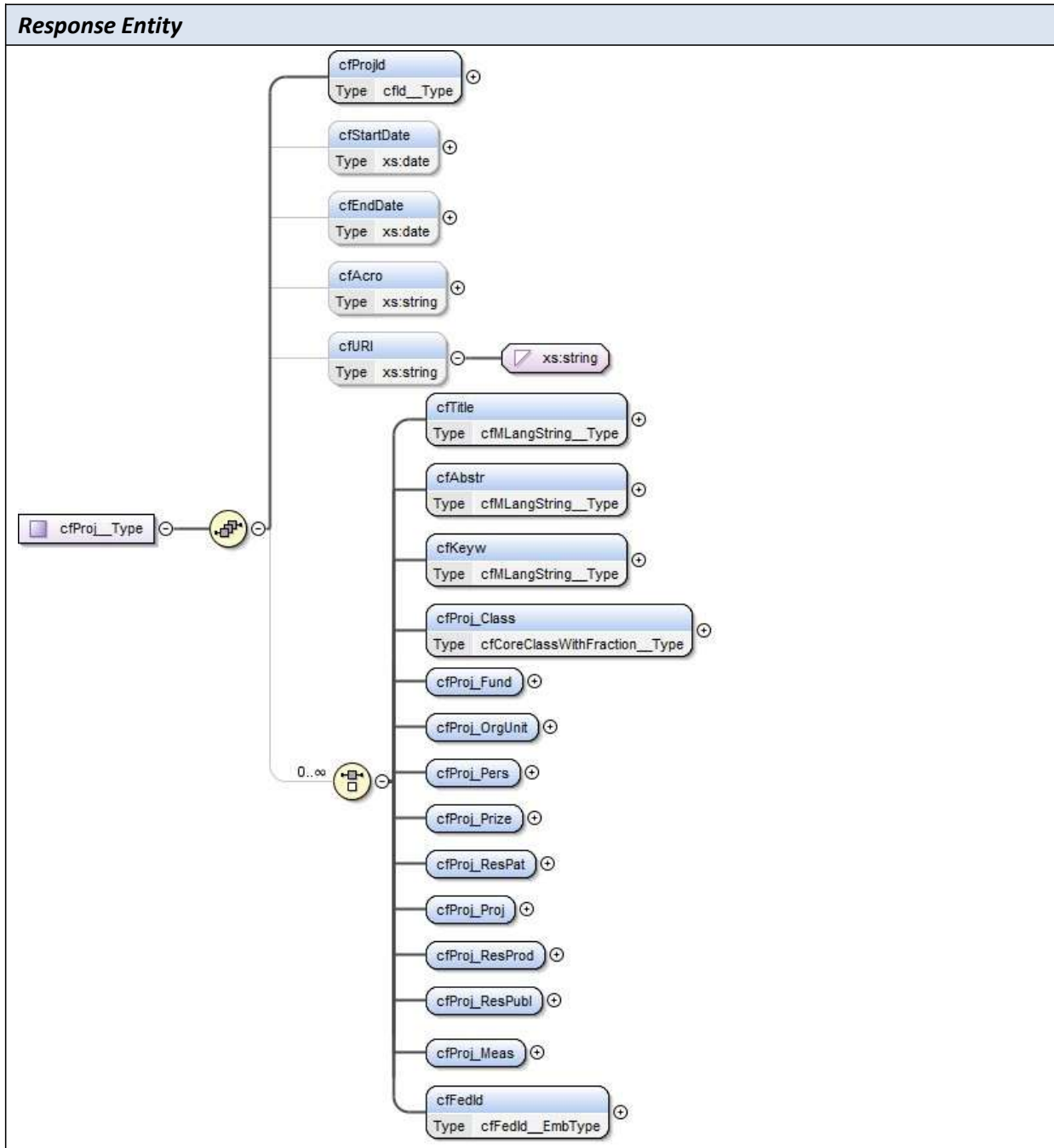
The CfProj Resource allows you to fetch a specific CfProj by id, or a paged listing of all CfProj.

CfProj By ID	
Description	Retrieve a project by its ID
Paged?	NO
Base URL	http://host:port/cerif/cfproj/<id>
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/cerif/cfproj/2306FD29-B224-4863-8235-425BBAE2739F

Response Entity



CfProj Listing	
Description	Retrieve all projects
Paged?	YES
Base URL	http://host:port/cerif/cfproj
HTTP Method	GET
Request Parameters	fetchSize page See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/cerif/cfproj?page=2&fetchSize=25

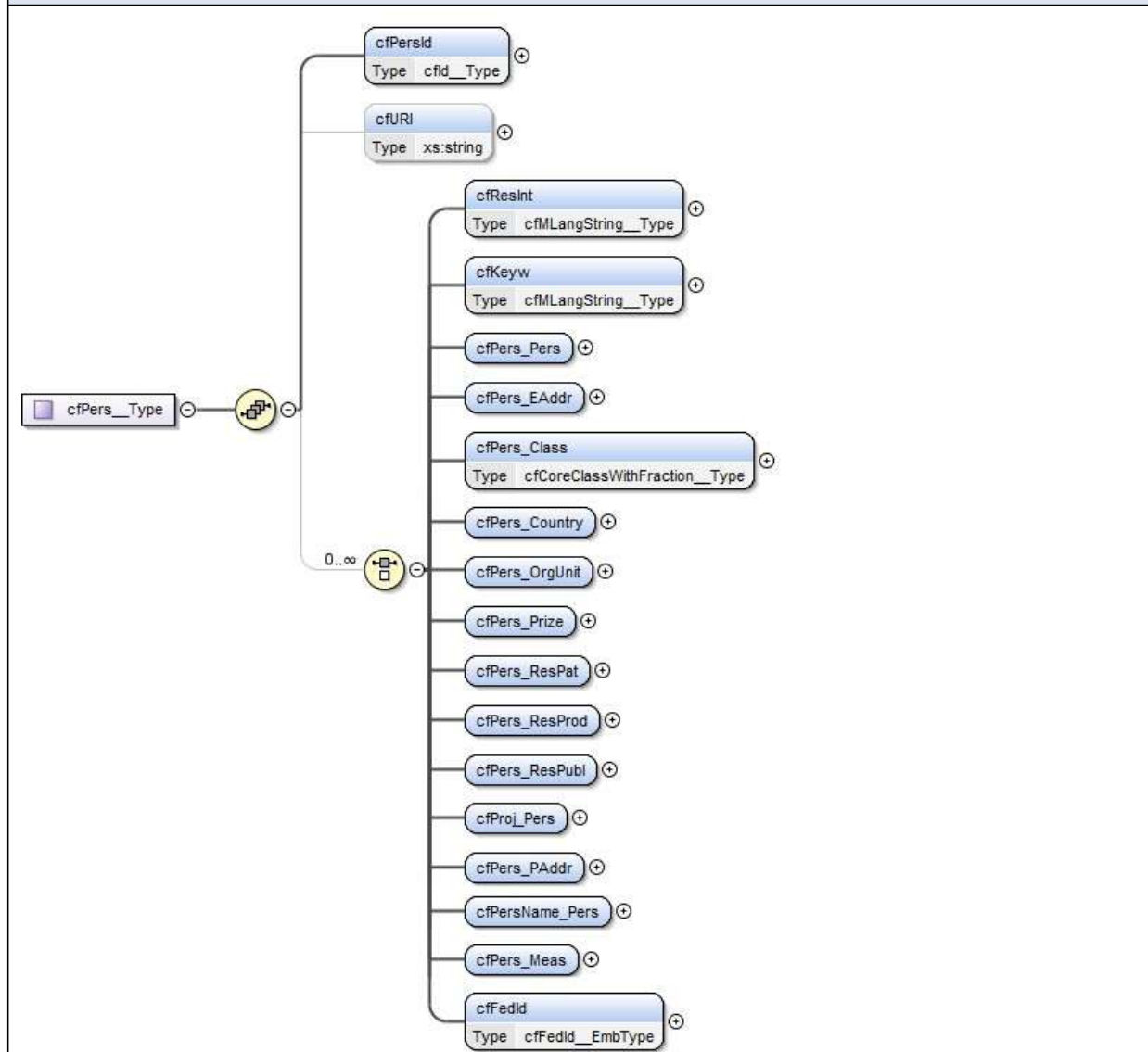


CFPERS RESOURCE

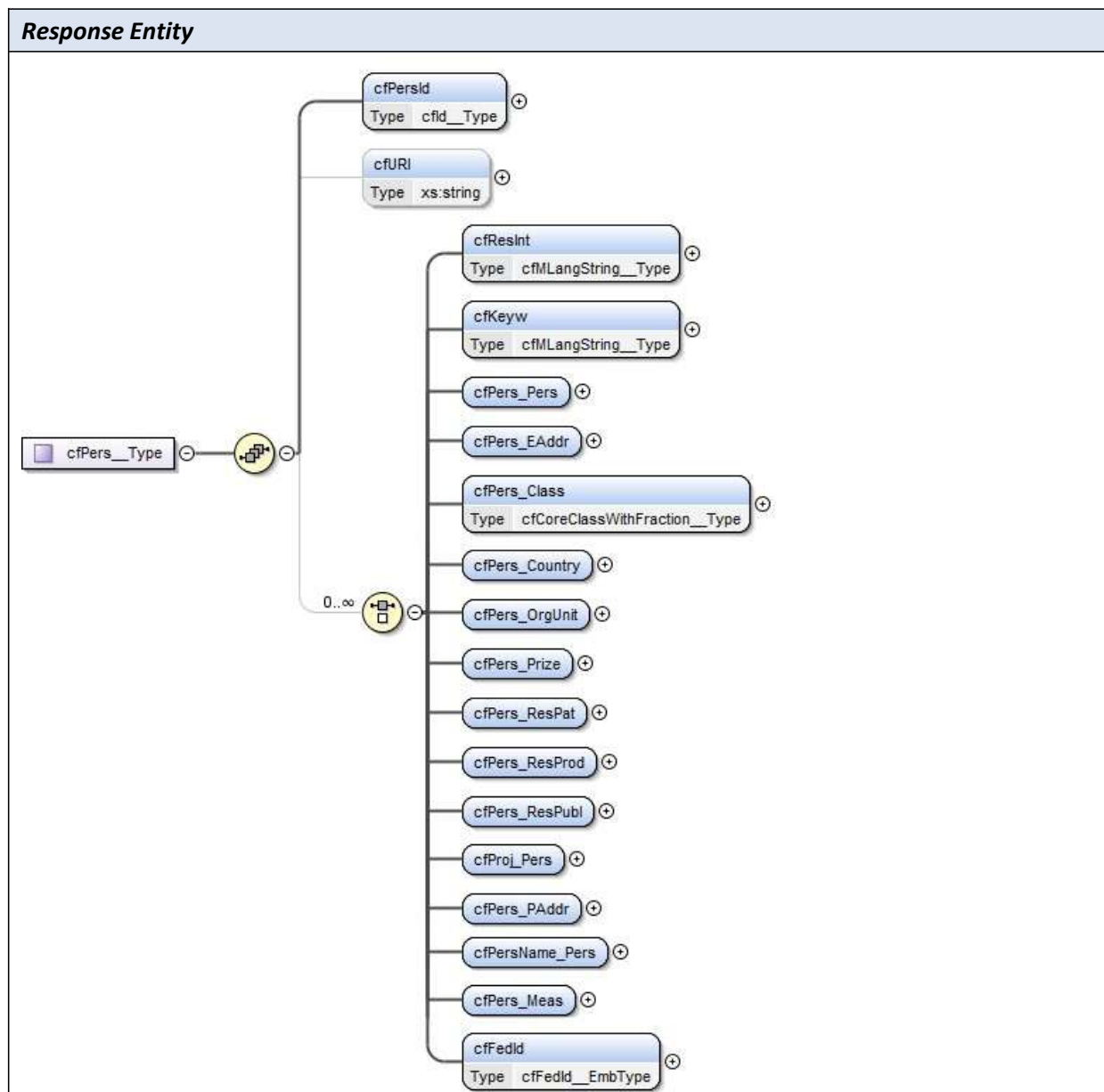
The CfPers Resource allows you to fetch a specific CfPers by id, or a paged listing of all CfPers.

CfPers By ID	
Description	Retrieve a person by their ID
Paged?	NO
Base URL	http://host:port/cerif/cfpers/<id>
HTTP Method	GET
Sub Entities	cerif:cfPers_OrgUnit cerif:cfProj_Pers cerif:cfPersName_Pers
Example	http://gtr.rcuk.ac.uk/cerif/cfpers/4F786DD5-36BE-40D5-9152-B090E3D12F90

Response Entity



CfPers Listing	
Description	Retrieve all people
Paged?	YES
Base URL	http://host:port/cerif/cfpers
HTTP Method	GET
Request Parameters	fetchSize page selectedSortOrder selectedSortField See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/cerif/search/cfpers?term=mouse&selectedFace ts=&fetchSize=25&page=1&selectedSortableField=Relevance&select edSortOrder=DESC

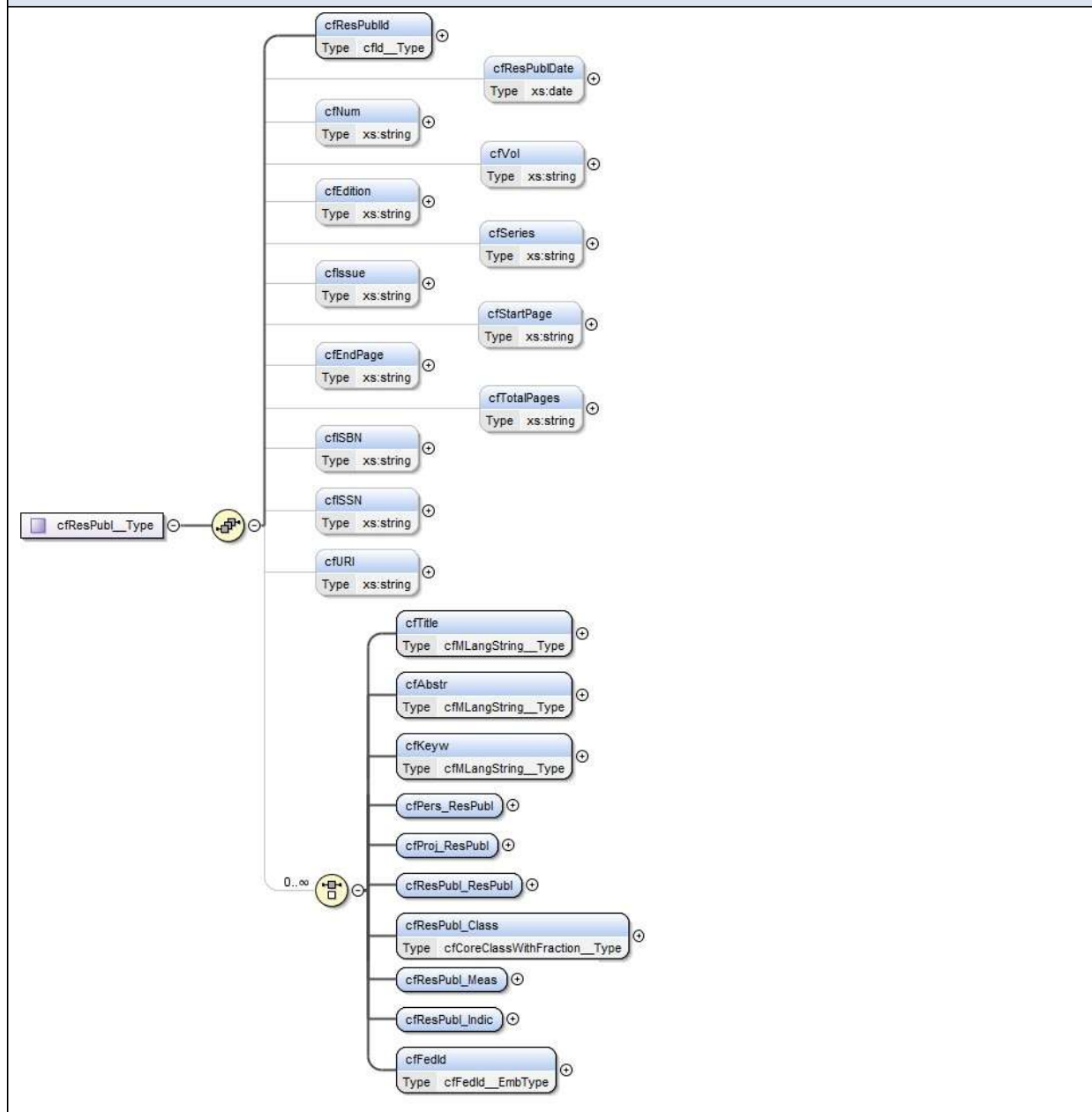


CFRESPUBL RESOURCE

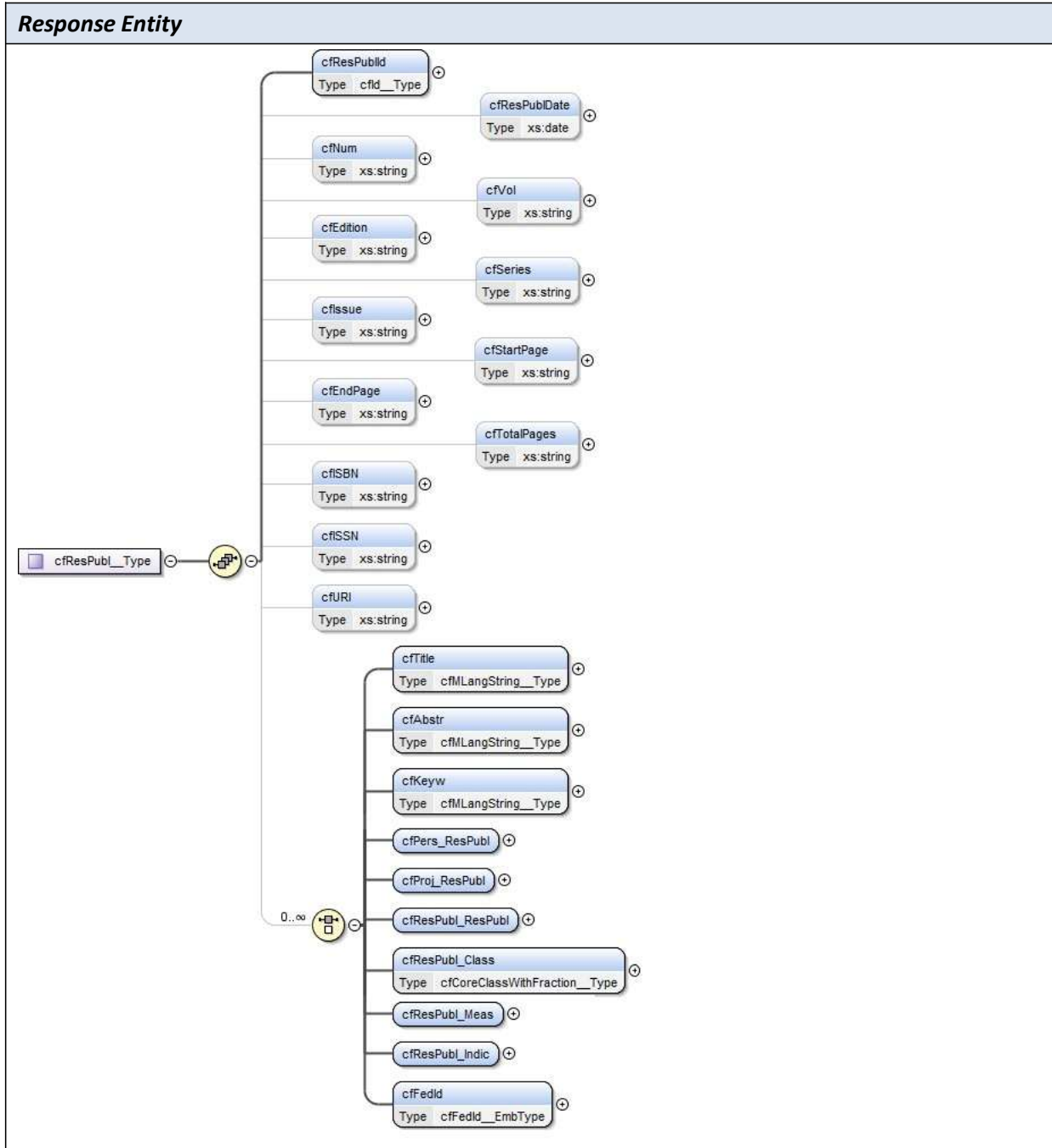
The CfResPubl Resource allows you to fetch a specific CfResPubl by id, or a paged listing of all CfResPubl.

CfResPubl By ID	
Description	Retrieve a publication by its ID
Paged?	NO
Base URL	http://host:port/cerif/cfrespubl/<id>
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/cerif/cfrespubl/210362B4-5E53-4D66-968C-FDD754ED2144

Response Entity



CfResPubl Listing	
Description	Retrieve all publications
Paged?	YES
Base URL	http://host:port/cerif/cfrespubl
HTTP Method	GET
Request Parameters	fetchSize page See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/cerif/cfrespubl?page=2&fetchSize=25

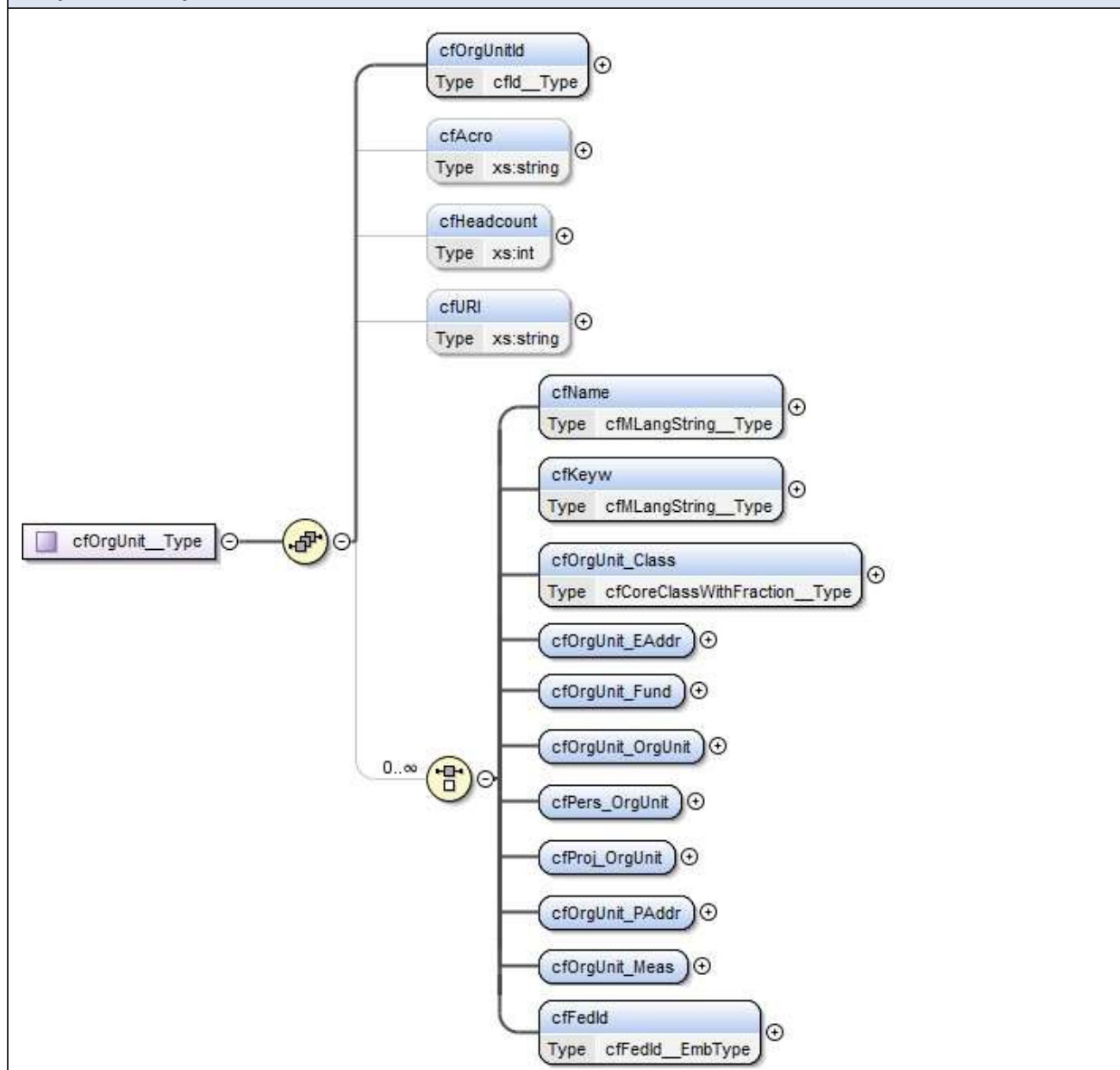


CFORGUNIT RESOURCE

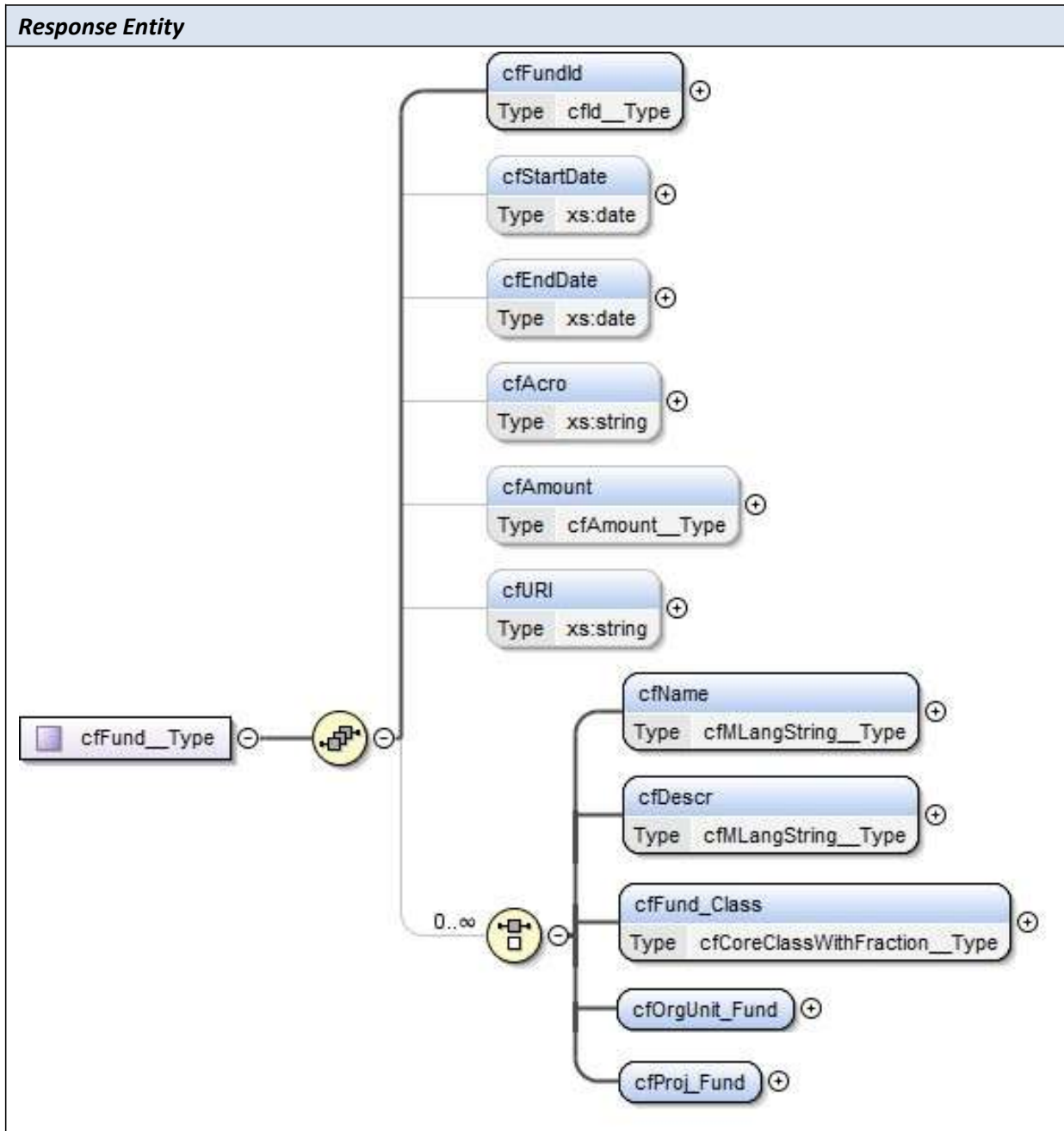
The CfOrgUnit Resource and associated resources allows you to fetch a specific CfOrgUnit by id, or a paged listing of all CfOrgUnit.

CfOrgUnit By ID	
Description	Retrieve a organisation by its ID
Paged?	NO
Base URL	http://host:port/cerif/cforgunit/<id>
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/cerif/cforgunit/46387D84-F71E-4B7D-8C7D-9C288F113510

Response Entity



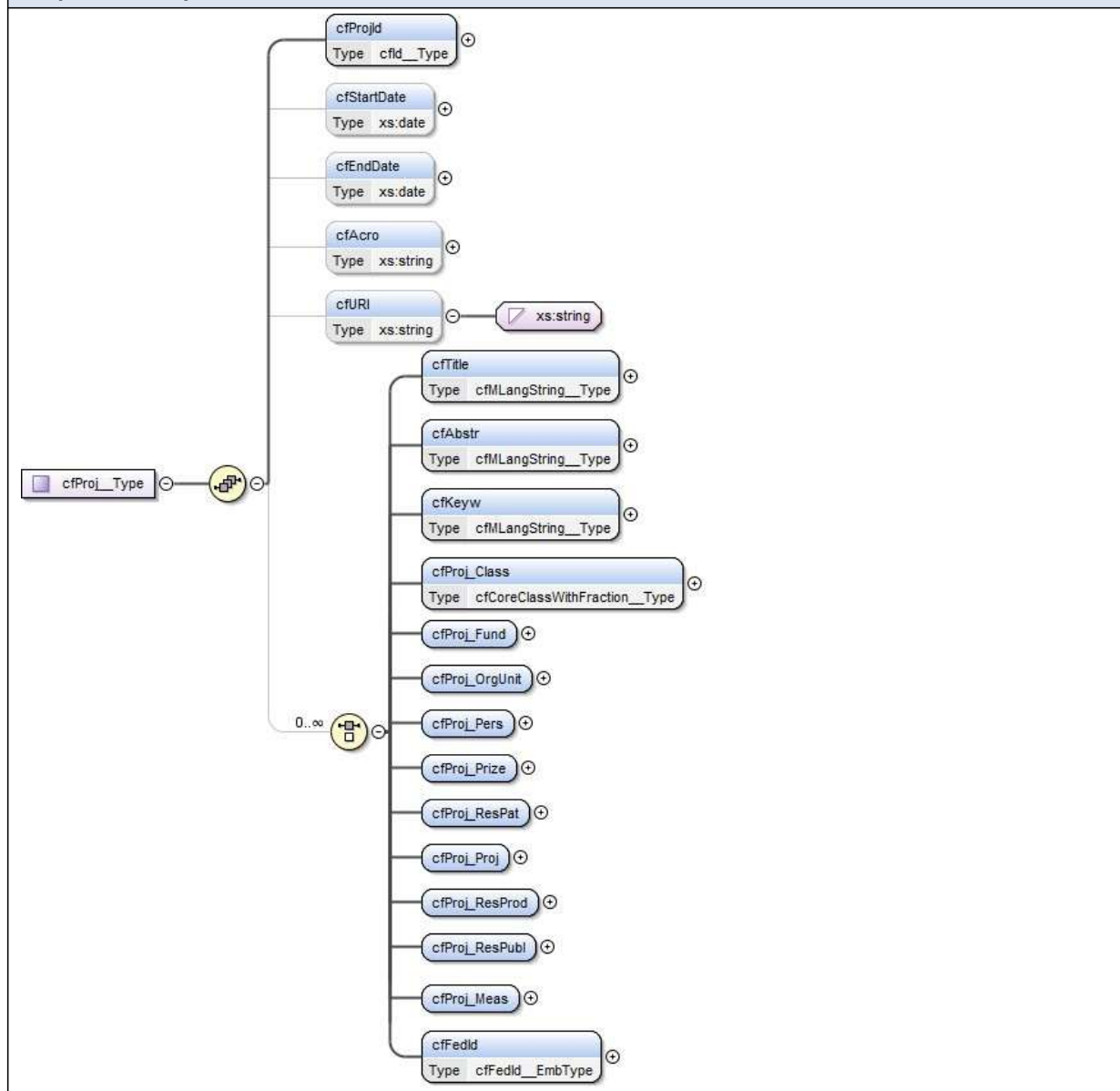
All CfFund for a CfOrgUnit By ID	
Description	Retrieve all funds for an organisation (Note for GtR you can use this as a route from the Funder to all the project they fund via Grants, Studentships or fellowships)
Paged?	NO
Base URL	http://host:port/cerif/cforgunit/<id>/cffund
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/cerif/cforgunit/1291772D-DFCE-493A-AEE7-24F7EEAFE0E9/cffund



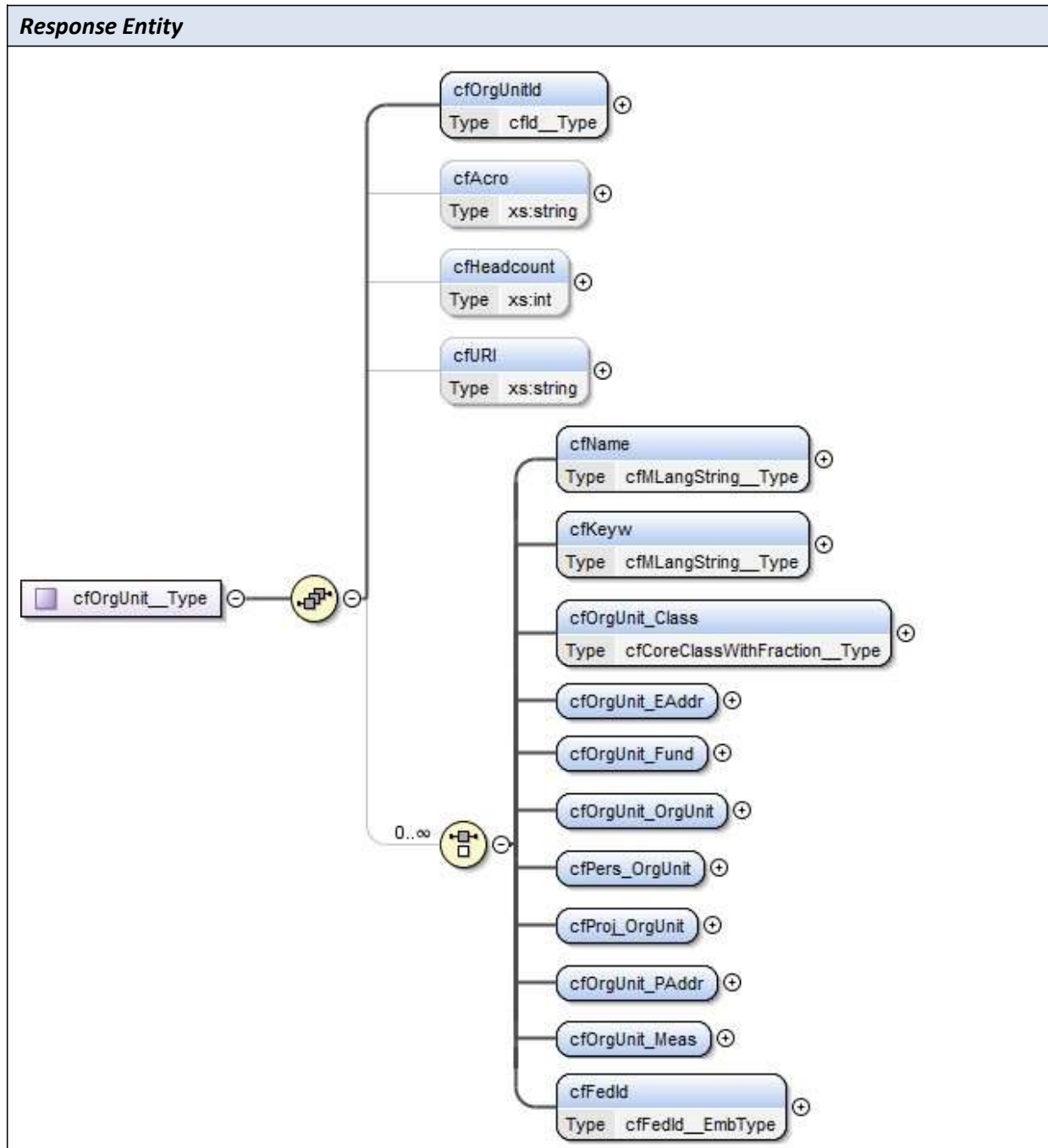
All CfProj for a CfOrgUnit By ID

Description	Retrieve all projects for an organisation (In GtR you would use this to find out all the Projects for which an Organisation has a direct relationship)
Paged?	NO
Base URL	http://host:port/cerif/cforgunit/<id>/cfproj
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/cerif/cforgunit/46387D84-F71E-4B7D-8C7D-9C288F113510/cfproj

Response Entity



CfOrgUnit Listing	
Description	Retrieve all organisations
Paged?	YES
Base URL	http://host:port/cerif/cforgunit
HTTP Method	GET
Request Parameters	fetchSize page See Request Parameters Summary.
Example	http://gtr.rcuk.ac.uk/cerif/cforgunit?page=2&fetchSize=25

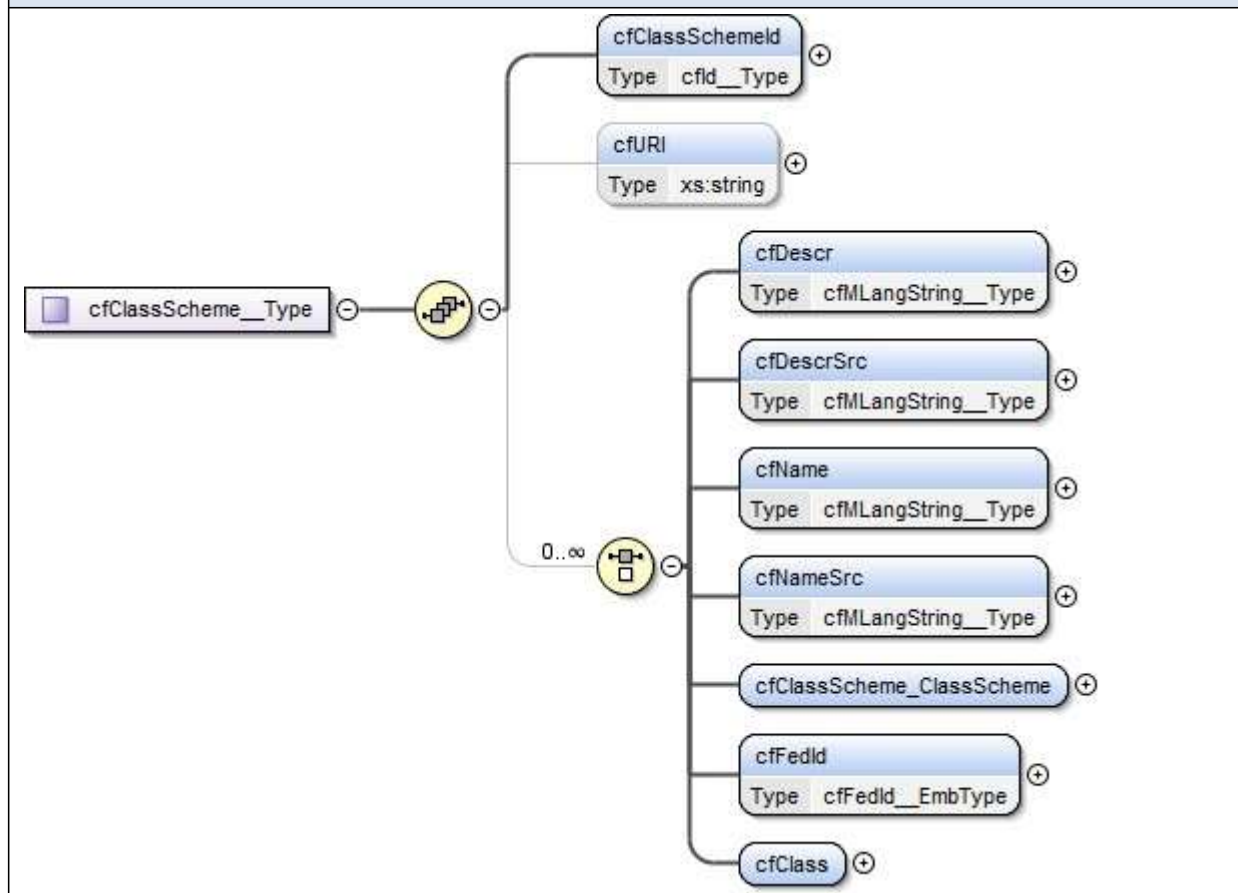


CFCLASSSCHEME RESOURCE

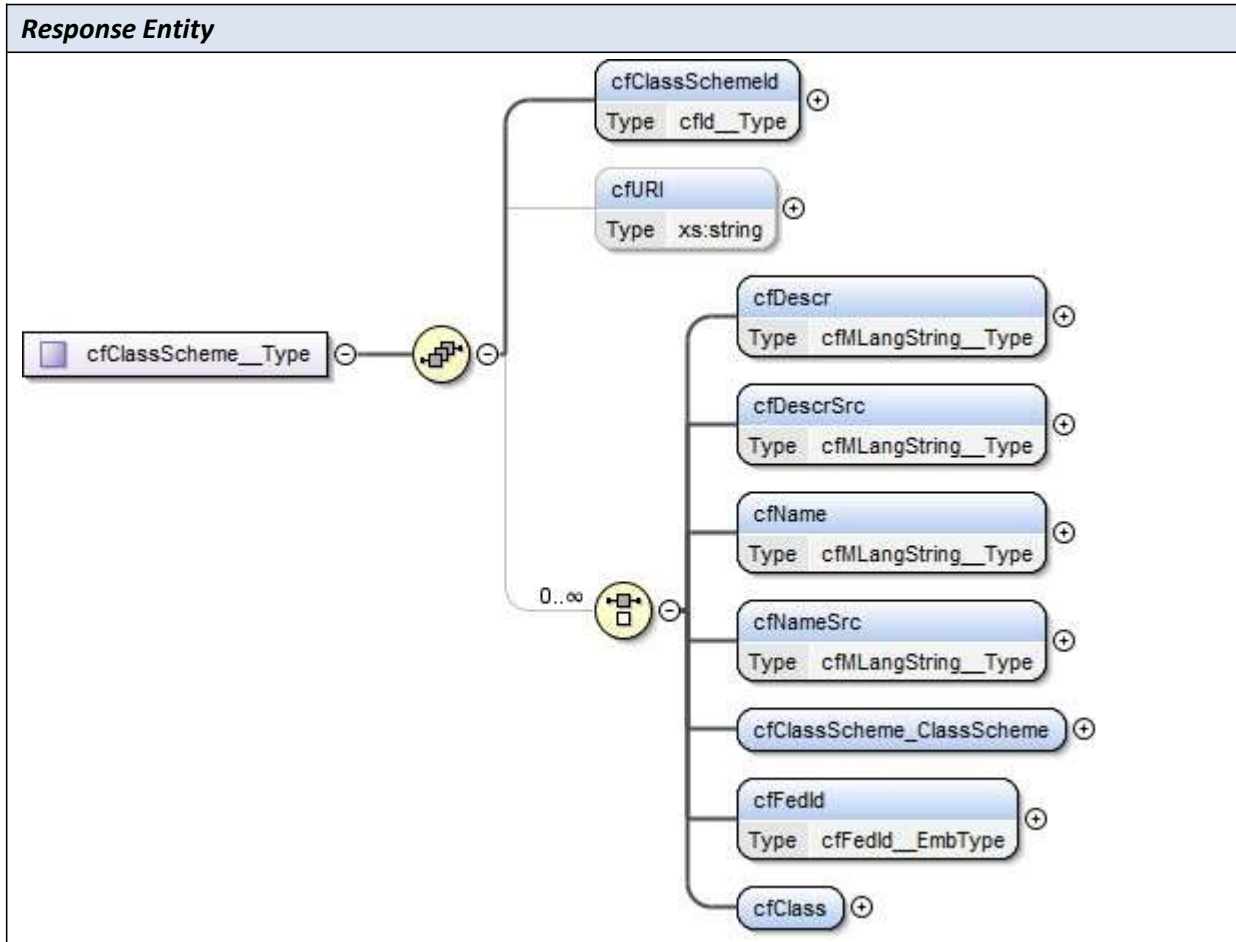
The CfClassScheme Resource allows you to fetch a specific CfClassScheme by id, or all CfClassScheme.

CfClassScheme By ID	
Description	Retrieve a class scheme by its ID
Paged?	NO
Base URL	http://host:port/erif/cfclassscheme/<id>
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/erif/cfclassscheme/25D7298A-9B7C-492F-A3BF-30813BC4F88A

Response Entity



CfClassScheme Listing	
Description	Retrieve all class schemes
Paged?	NO
Base URL	http://host:port/cerif/cfclassscheme
HTTP Method	GET
Response Entity	cerif:CERIF/cerif:CfClassScheme
Sub Entities	cerif:cfClass
Example	http://gtr.rcuk.ac.uk/cerif/cfclassscheme

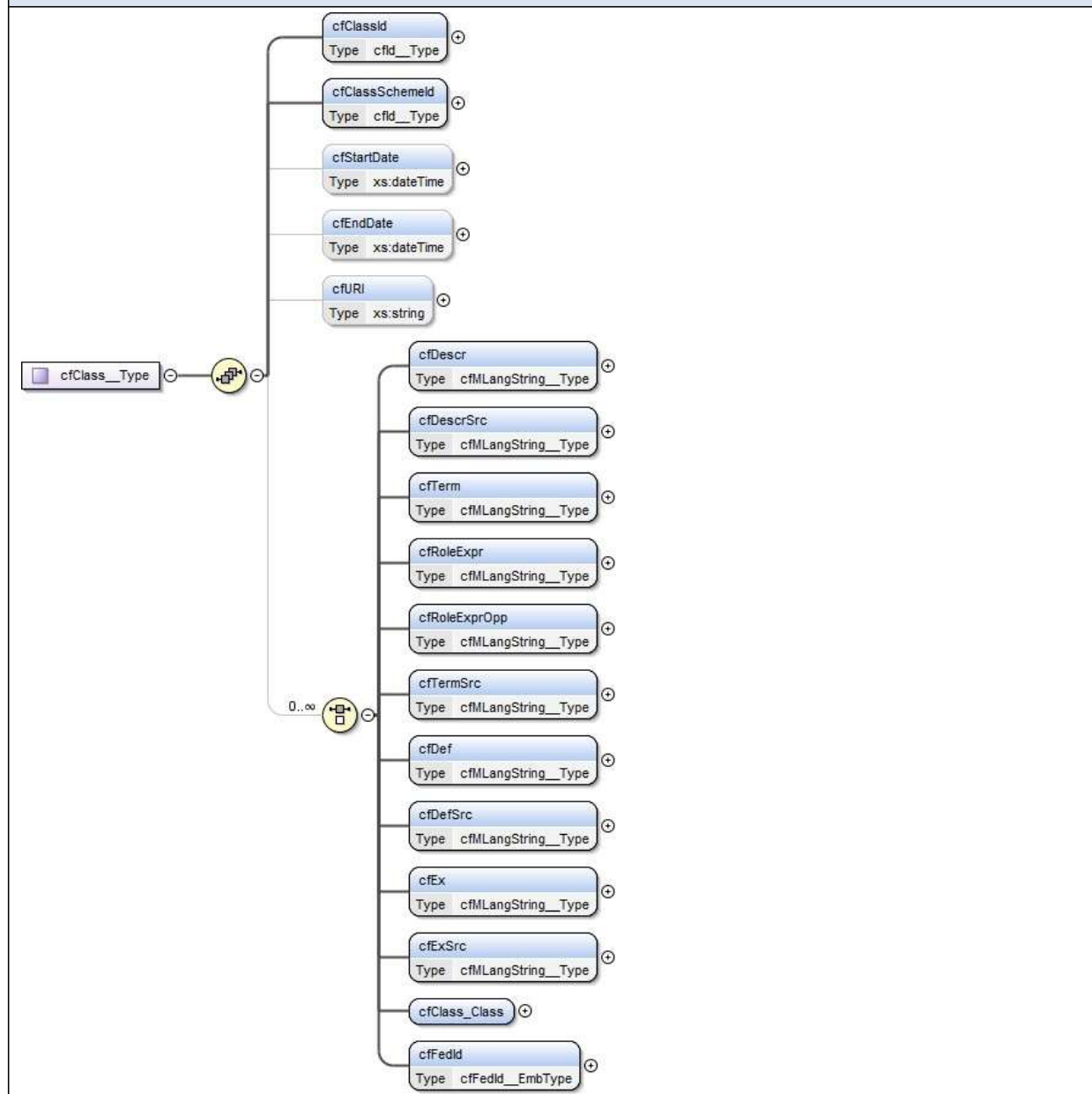


CFCLASS RESOURCE

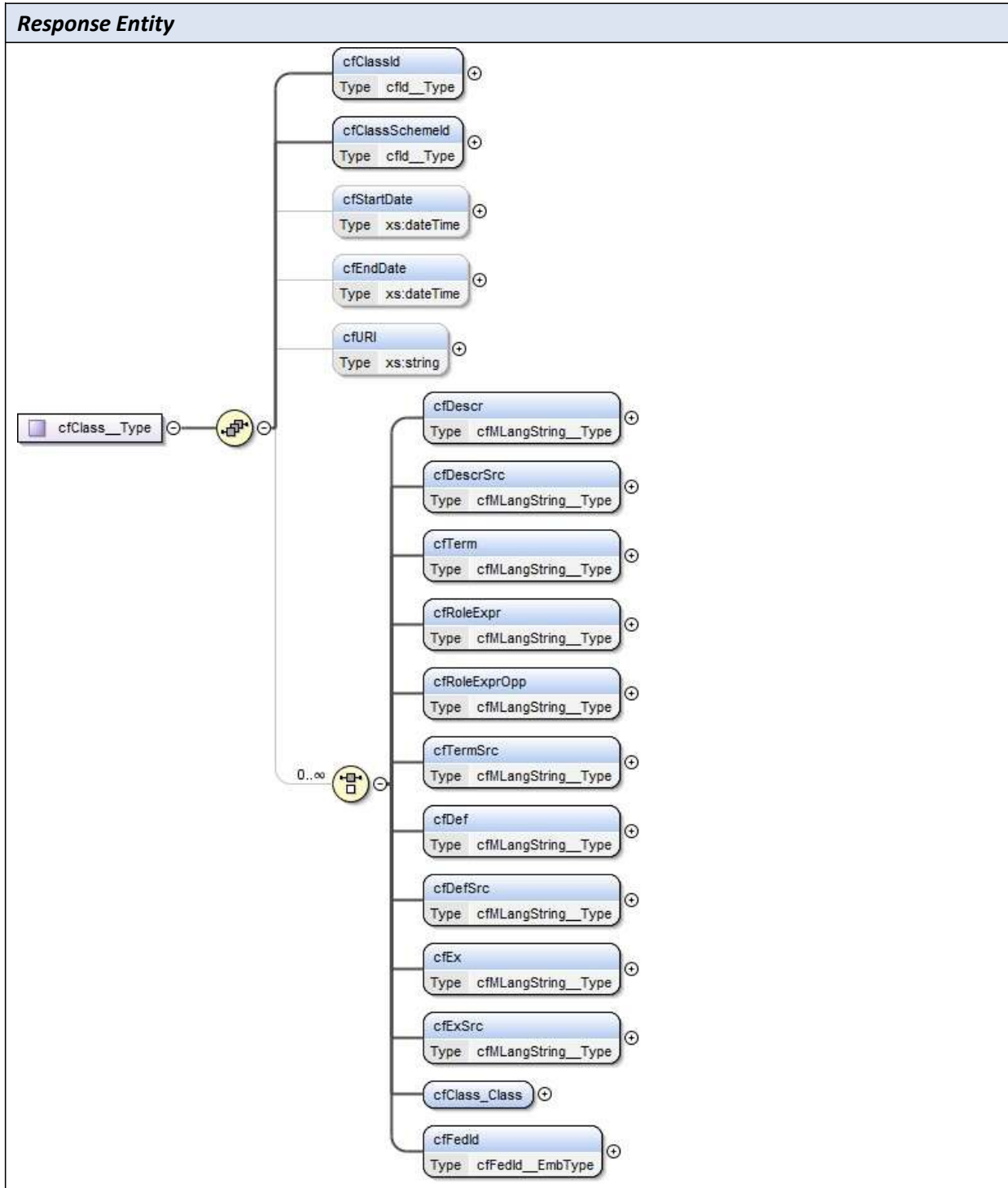
The CfClass Resource allows you to fetch a specific CfClass by id, or all CfClass.

CfClass By ID	
Description	Retrieve a class scheme by its ID
Paged?	NO
Base URL	http://host:port/cerif/cfclass/<scheme_id>/<class_id>
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/cerif/cfclass/25D7298A-9B7C-492F-A3BF-30813BC4F88A/376E06B2-2D1E-494E-A11F-0040A00ECDC9

Response Entity



CfClass Listing	
Description	Retrieve all class schemes
Paged?	NO
Base URL	http://host:port/cerif/cfclass
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/cerif/cfclass

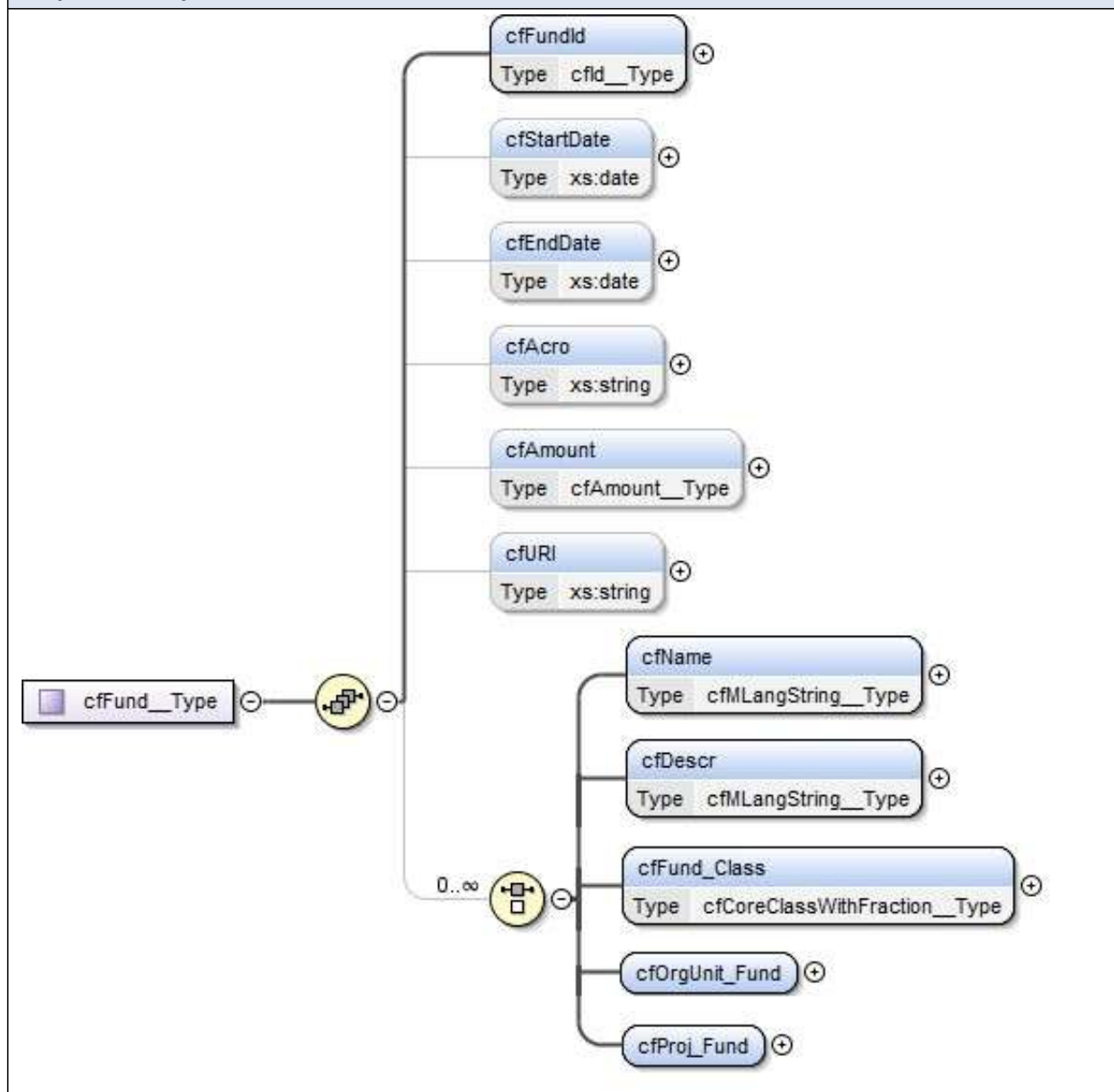


CFFUND RESOURCE

The CfFund Resource allows you to fetch a specific CfFund by id.

CfFund By ID	
Description	Retrieve a fund by its ID
Paged?	NO
Base URL	http://host:port/cerif/cffund/<id>
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/cerif/cffund/0DB56D1C-37A2-413E-B9A4-59619E0946D7

Response Entity

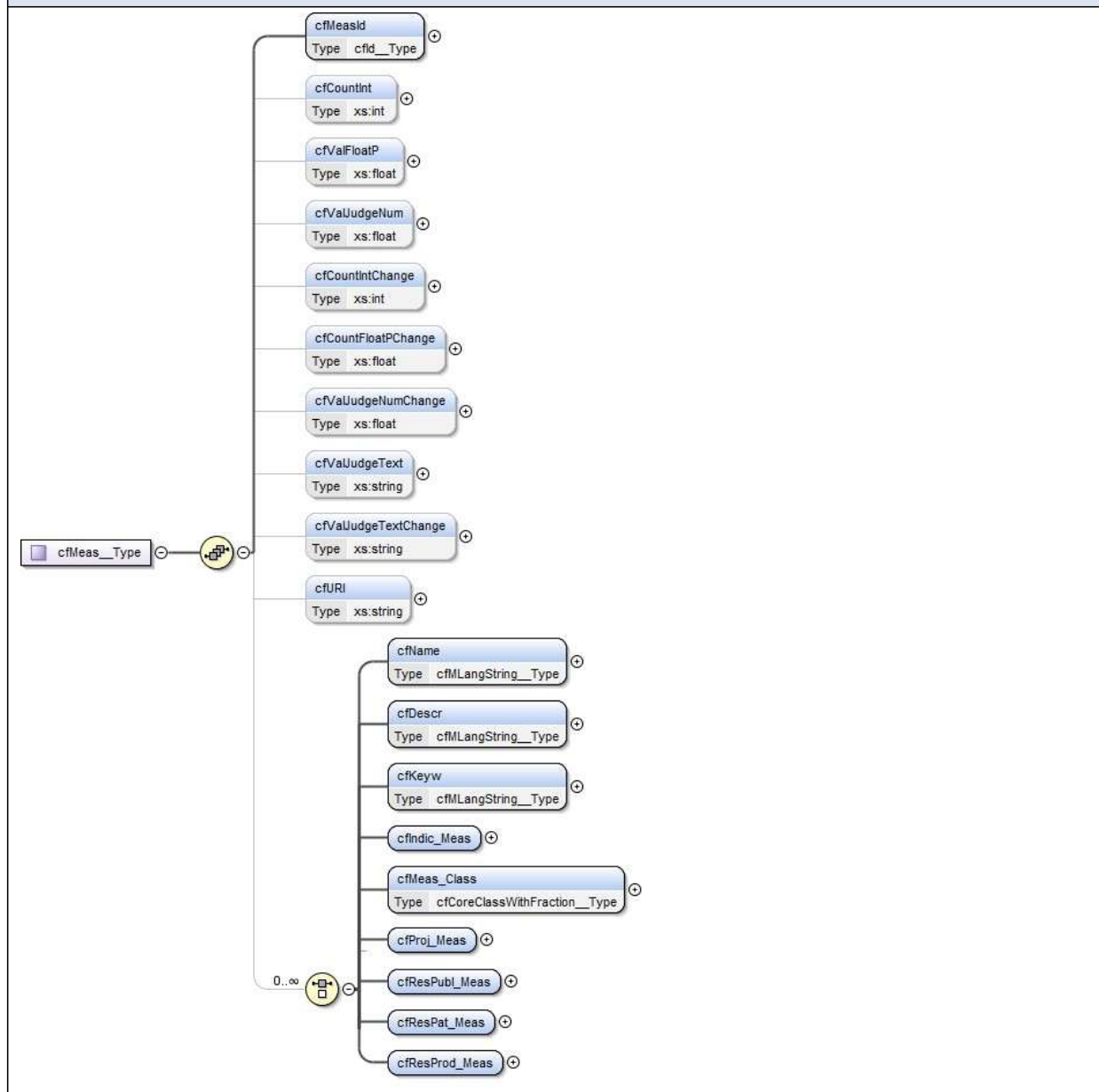


CFMEAS RESOURCE

The CfMeas Resource allows you to fetch a specific CfMeas by id.

CfMeas By ID	
Description	Retrieve a measure by its ID
Paged?	NO
Base URL	http://host:port/cerif/cfmeas/<id>
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/cerif/cfmeas/E66625CD-0C95-44F2-8DE4-F82C98CB85E3

Response Entity

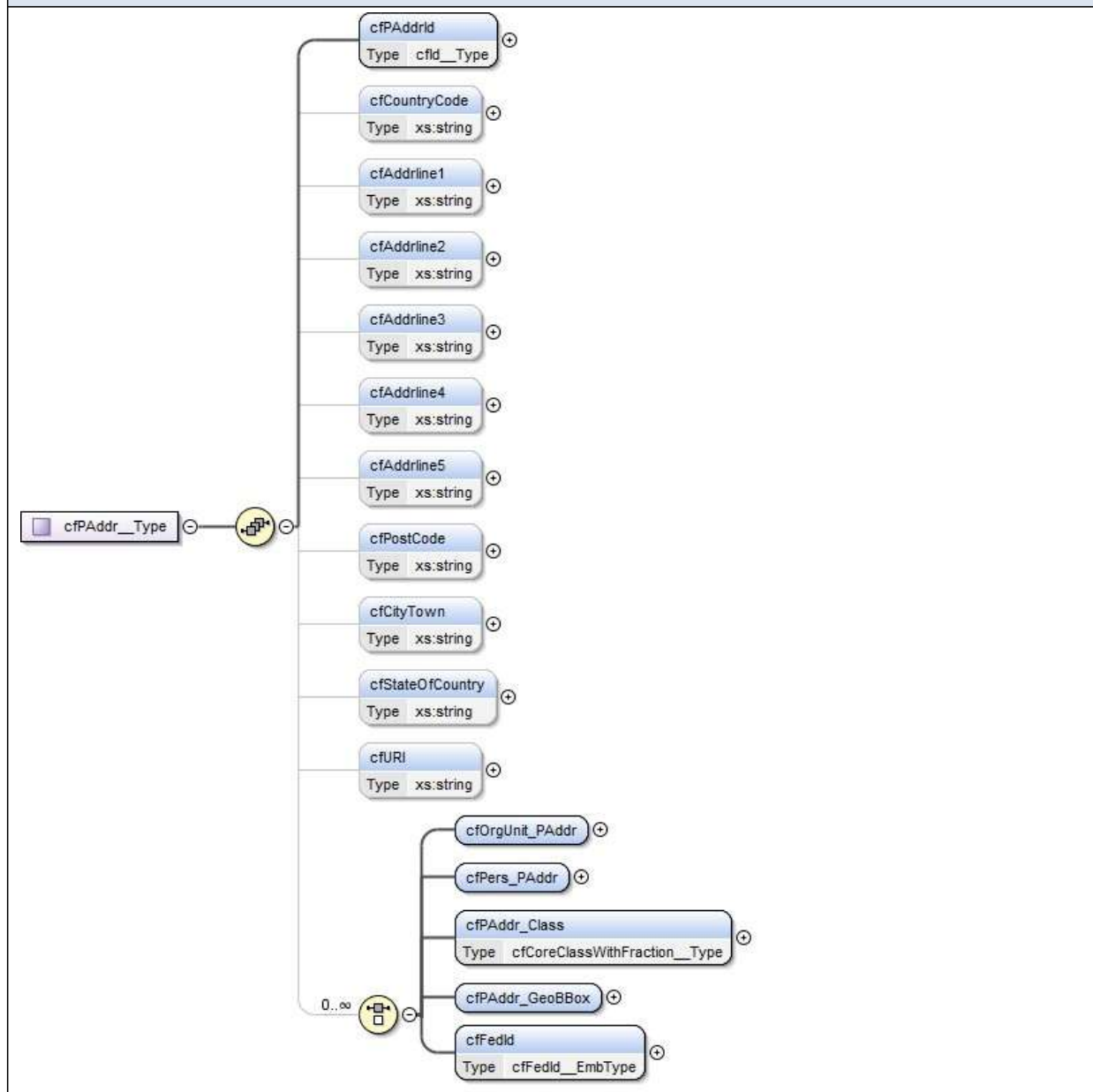


CFPADDR RESOURCE

The CfPAddr Resource allows you to fetch a specific CfPAddr by id.

CfPAddr By ID	
Description	Retrieve a physical address by its ID
Paged?	NO
Base URL	http://host:port/cerif/cfpaddr/<id>
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/cerif/cfpaddr/001D03EE-97BD-4E74-8577-38293386BF84

Response Entity

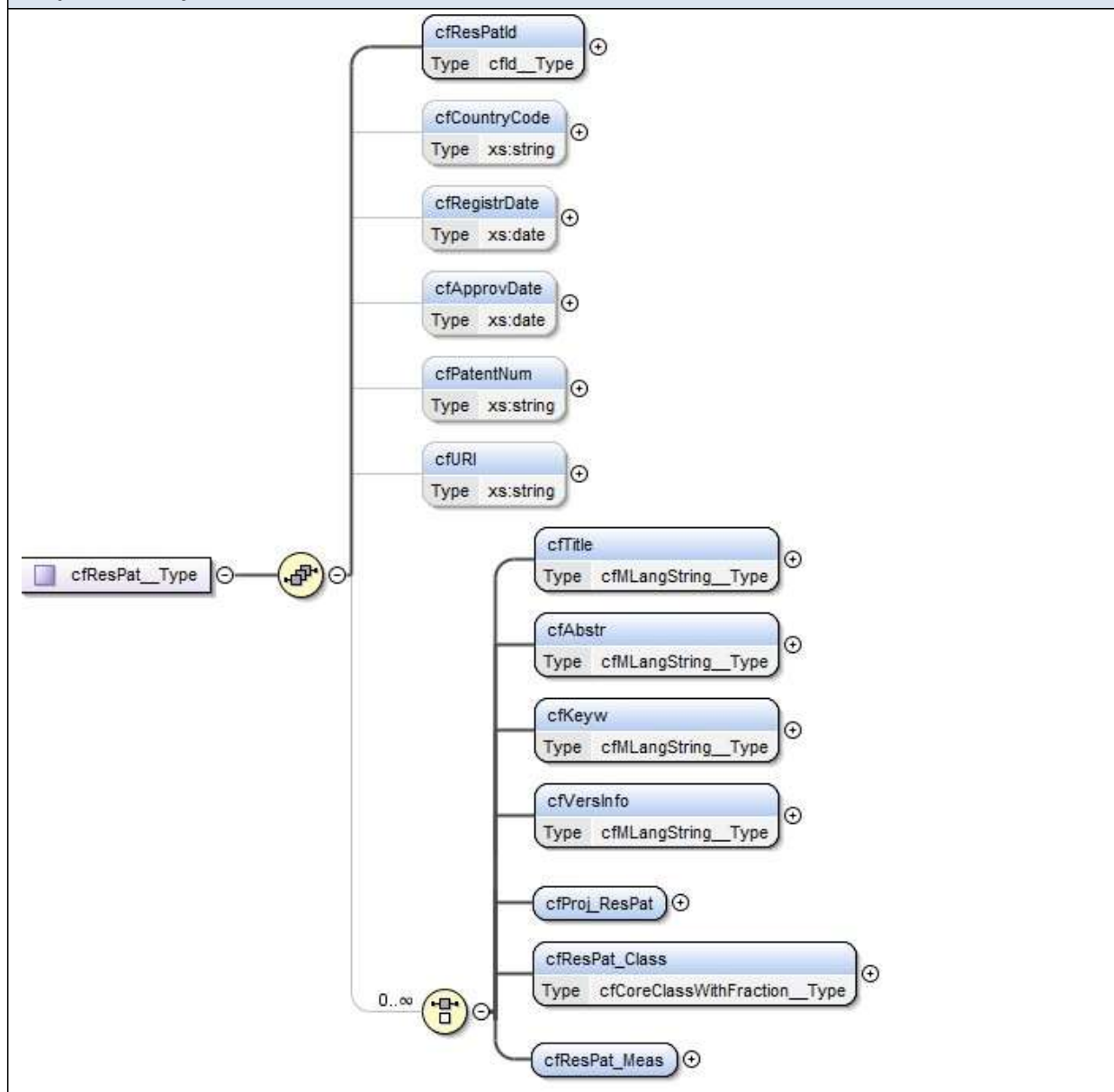


CFRESPAT RESOURCE

The CfResPat Resource allows you to fetch a specific CfResPat by id.

CfResPat By ID	
Description	Retrieve a patent by its ID
Paged?	NO
Base URL	http://host:port/cerif/cfrespat/<id>
HTTP Method	GET
Example	http://gtr.rcuk.ac.uk/cerif/cfrespat/010066CE-3372-4D03-BEC8-9BEE1BC8BB75

Response Entity

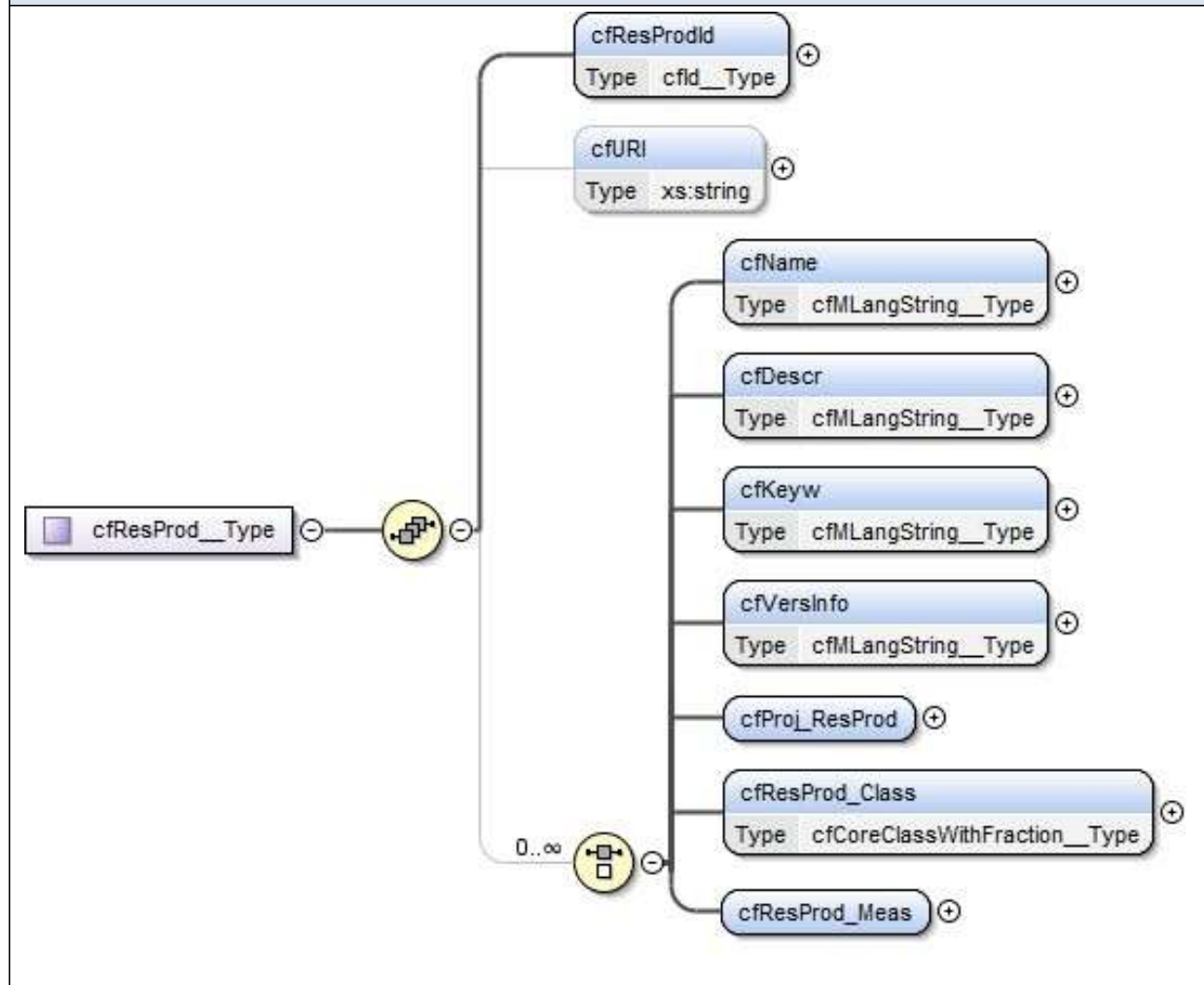


CFRESPROD RESOURCE

The CfResProd Resource allows you to fetch a specific CfResProd by id.

CfResProd By ID	
Description	Retrieve a product by its ID
Paged?	NO
Base URL	http://host:port/cerif/cfresprod/<id>
HTTP Method	GET
Response Entity	cerif:CERIF/cerif:CfResProf
Sub Entities	cerif:cfOrgUnit_ResProd cerif:cfPers_ResProd cerif:cfProj_ResProd cerif:cfResProd_Meas
Example	http://gtr.rcuk.ac.uk/cerif/cfresprod/0046B665-56BC-4E78-8224-B651D2DOC4EA

Response Entity



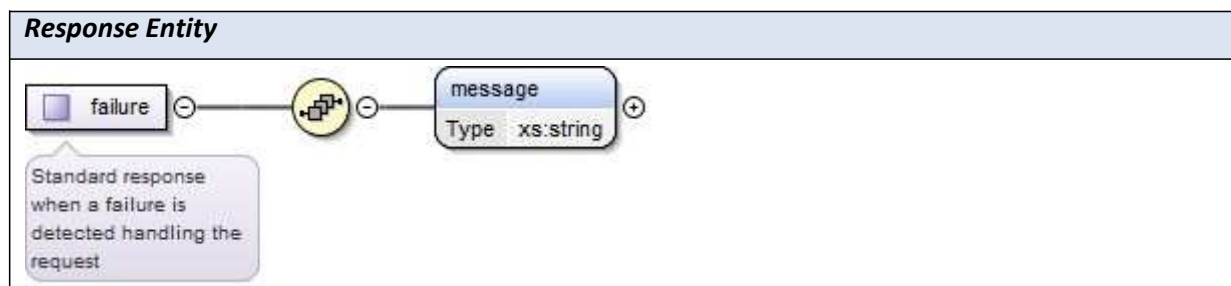
FAILURE SCENARIOS

Any requests that fail due to client or server errors will return a HTTP Status Code relevant to the type of error encountered.

The following errors are returned by the GtR application:

Code	Meaning	Description
400	Bad Request	The client provided invalid data or parameters
404	Not Found	The requested resource does not exist
500	Internal Server Error	An unexpected error has occurred on the server

Other HTTP Status Codes maybe returned, but are not specifically in use by the GtR application.



ABOUT SEARCHING

SEARCHING OVERVIEW

In this topic you can find out about how Search Terms work to help with custom searches and some help understanding how searching operates.

A Search term is a query that can be single or multiple words or phrases that may use operators (e.g. [Wild Cards](#), [Boolean Operators](#) etc.) to perform simple or complex searches.

The [Lucene](#) tool is used to provide information retrieval services from the GtR database. Lucene enables complex searches known as queries.

For more information see <http://en.wikipedia.org/wiki/Lucene> or <http://lucene.apache.org/> or download a PDF from http://lucene.apache.org/core/old_versioned_docs/versions/2_9_1/queryparsersyntax.pdf.

SEARCH TERMS IN A NUTSHELL

The following table provides a summary of Lucene syntax and indicates which are implemented:

Term	Description	Example Search	Returns
Term	A single word. Not case sensitive.	Test	All documents containing test or "Test" or "TEST" or TeST" etc.
Phrase	A set of terms. Not case sensitive.	test blood	All documents with "test" or "TEST" containing "blood" or "BlOod" etc..
Quoted Phrase	A phrase enclosed with speech marks to indicate matching a phrase rather than the individual terms.	"Blood Test"	All documents containing the two words together
Case	Lucene is not case sensitive except Boolean terms (UPPER CASE). Not case sensitive.	N/A	N/A
Wildcards * or ?	? Single character wildcard	T?nt	All documents containing "Tent", "tint", "TNT" etc.
	* Multiple character wildcard	T*nt	All document containing "Tent", "tint", "TNT", "taint", "taunt", "talent" etc.
	Note: You cannot use * or ? as the first character of a search.		
Field Searches	Not currently supported in GtR.	N/A	N/A

Term	Description	Example Search	Returns
Fuzzy Search~	Performs a likeness search for a single term.(Levenshtein Distance, or Edit Distance). For example, " term "~"<similarity> where "term" is the search string and (optional) similarity is a number between 0 and 1. The default value is 0.5 and the higher the number the nearer the returned items will be to the search term.	Test~0.8	Documents containing one or more words quite similar to "test".
	See http://en.wikipedia.org/wiki/Fuzzy_search .	Test~0.1	Documents containing one or more words quite similar to "test" but less similar to "test" than 0.8.
Proximity Search~	Looks for terms within a certain number of words from each other. For example, "test blood" ~10 returns any instances of test and blood within 10 words of each other in a document.	"test blood"~10	Documents with "test" and "blood" within 10 words of each other.
Range Search	Not currently supported in GtR.	N/A	N/A
Boosting Terms^	You can provide a weighted relevance factor to a term or phrase using the caret character ^. The higher the boost value the more relevant the term or phrase is. Values are from greater than zero e.g. 0.1, 1, 10.	"test blood"^3 "test sugar"^0.5.	Documents related to "test blood" or "test sugar" with "test blood" matches given a higher priority.
Boolean	These perform logic operations.		
	Note: Words are capitalised.		
	OR: returns documents where either terms/phrase exist. (OR is the default)	Test OR research	Returns documents containing either "test" or "research".
	AND: returns documents where both terms exist	Test AND "Blood Sugar"	Documents that contain both "test" and either "blood" or "sugar".
	NOT: excludes documents that contain the specified term/phrase.	"test AND blood" NOT "test AND sugar"	Documents that contain "test" and "blood" but does not return documents that contain "test" AND "sugar".
	+ : returns documents that contain this term or phrase	+test blood	Returns all documents with test and these documents may contain blood.
- : excludes documents that contain this term or phrase.	"blood test" - "sugar test"	Returns documents that contain "blood test" but not "sugar	

Term	Description	Example Search	Returns
			test".
Grouping	You can use parentheses to enclose terms or phrases	(blood or sugar or insulin) AND test	Returns documents that must contain results and either blood or sugar or insulin.
Field Grouping	Not currently supported in GtR.	N/A	N/A
Escape Characters	These are used to include special characters such as + - & ! () { } [] ^ " ~ * ? : \ in search terms and phrases.	If you wish to search for the phrase (A+B):C use \ (A\+B\) \:C	Returns documents containing "(A+B):C"