

# ARLAS Exploration API

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# Chapter 1. Overview

Explore the content of ARLAS collections

## 1.1. Version information

*Version* : V0.1.0

## 1.2. Contact information

*Contact* : Gisaia

*Contact Email* : [contact@gisaia.com](mailto:contact@gisaia.com)

## 1.3. License information

*License* : Apache 2.0

*License URL* : <https://www.apache.org/licenses/LICENSE-2.0.html>

*Terms of service* : null

## 1.4. URI scheme

*BasePath* : /arlas

*Schemes* : HTTP

## 1.5. Tags

- collections
- explore

# Chapter 2. Resources

## 2.1. Collections

### 2.1.1. Get all collection references

```
GET /collections
```

#### Description

Get all collection references in ARLAS

#### Responses

HTTP Code	Description	Schema
200	Successful operation	< <a href="#">CollectionReference</a> > array
500	Arlas Server Error.	<a href="#">ArlasError</a>

#### Consumes

- `application/json; charset=utf-8`

#### Produces

- `application/json; charset=utf-8`

### 2.1.2. Get a collection reference

```
GET /collections/{collection}
```

#### Description

Get a collection reference in ARLAS

#### Parameters

Type	Name	Description	Schema
Path	<b>collection</b> <i>required</i>	collection	string

## Responses

HTTP Code	Description	Schema
200	Successful operation	<a href="#">CollectionReference</a>
404	Collection not found.	<a href="#">ArlasError</a>
500	Arlas Server Error.	<a href="#">ArlasError</a>

## Consumes

- `application/json; charset=utf-8`

## Produces

- `application/json; charset=utf-8`

### 2.1.3. Add a collection reference

```
PUT /collections/{collection}
```

## Description

Add a collection reference in ARLAS

## Parameters

Type	Name	Description	Schema
Path	<b>collection</b> <i>required</i>	collection	string
Body	<b>collectionParams</b> <i>required</i>	collectionParams	<a href="#">CollectionReferenceParameters</a>

## Responses

HTTP Code	Description	Schema
200	Successful operation	<a href="#">CollectionReference</a>
400	JSON parameter malformed.	<a href="#">ArlasError</a>
500	Arlas Server Error.	<a href="#">ArlasError</a>

### Consumes

- `application/json; charset=utf-8`

### Produces

- `application/json; charset=utf-8`

## 2.1.4. Delete a collection reference

```
DELETE /collections/{collection}
```

### Description

Delete a collection reference in ARLAS

### Parameters

Type	Name	Description	Schema
Path	<b>collection</b> <i>required</i>	collection	string

### Responses

HTTP Code	Description	Schema
200	Successful operation	<a href="#">ArlasSuccess</a>
404	Collection not found.	<a href="#">ArlasError</a>
500	Arlas Server Error.	<a href="#">ArlasError</a>

### Consumes

- `application/json; charset=utf-8`

### Produces

- `application/json; charset=utf-8`

## 2.2. Explore

### 2.2.1. List

```
GET /explore/_list
```

## Description

List the collections configured in ARLAS.

## Parameters

Type	Name	Description	Schema
Query	<b>max-age-cache</b> <i>optional</i>	max-age-cache	integer(int32)

## Responses

HTTP Code	Description	Schema
200	Successful operation	No Content

## Consumes

- `application/json; charset=utf-8`

## Produces

- `application/json; charset=utf-8`

## 2.2.2. Aggregate

```
GET /explore/{collections}/_aggregate
```

## Description

Aggregate the elements in the collection(s), given the filters and the aggregation parameters

## Parameters

Type	Name	Description	Schema	Default
Path	<b>collections</b> <i>required</i>	collections, comma separated	string	
Query	<b>after</b> <i>optional</i>	Any element having its point in time reference after the given timestamp	integer(int64)	



Type	Name	Description	Schema	Default
Query	<b>agg</b> <i>required</i>	<p>* The agg parameter should be given in the following formats:</p> <pre>{type}:{field}:interval-{interval}:format- {format}:collect_field- {collect_field}:collect_fct-{function}:order- {order}:on-{on}</pre> <p>Where the {type}:{field} part is mandatory AND interval, format, collect_field, collect_fct, order AND on are optional sub-parameters.</p> <p>* {type} possible values are :</p> <p>datehistogram, histogram, term.</p> <p>* {interval} possible values depends on {type}.</p> <p>If {type} = datehistogram, then {interval} = {size}(year,quarter,month,week,day,hour,minute,second).</p> <p>If {type} = histogram, then {interval} = {size}.</p> <p>If {type} = term, then interval-{interval} is not needed.</p> <p>* format-{format} is to be specified when {type} = datehistogram. It's the date format for key aggregation.</p> <p>* {collect_fct} is the aggregation function to apply to collections on the specified {collect_field}.</p> <p>{collect_fct} possible values are :</p> <p>----</p> <p>avg,cardinality,max,min,sum</p> <p>----</p> <p>* {order} is set to sort the aggregation result on the field name or on the result itself. It's values are 'asc' or 'desc'.</p> <p>* {on} is set to specify whether the {order} is on the field name or the result. It's values are</p>	< string > array(multi)	

Type	Name	Description	Schema	Default
Query	<b>before</b> <i>optional</i>	Any element having its point in time reference before the given timestamp	integer(int64)	

Type	Name	Description	Schema	Default														
Query	f optional	<p>* A triplet for filtering the result. Multiple filter can be provided. The order does not matter.</p> <p>* A triplet is composed of a field name, a comparison operator and a value.</p> <p>The possible values of the comparison operator are :</p> <p>----</p> <table><tr><th>Operator</th><th>Description</th></tr><tr><td>  value type</td><td></td></tr><tr><td>:</td><td>  {fieldName} equals {value}   numeric or strings</td></tr><tr><td>:gte:</td><td>  {fieldName} is greater than or equal to {value}   numeric</td></tr><tr><td>:gt:</td><td>  {fieldName} is greater than {value}   numeric</td></tr><tr><td>:lte:</td><td>  {fieldName} is less than or equal to {value}   numeric</td></tr><tr><td>:lt:</td><td>  {fieldName} is less than {value}   numeric</td></tr></table> <p>----</p> <p>* The AND operator is applied between filters having different fieldNames.</p> <p>* The OR operator is applied on filters having the same fieldName.</p> <p>* If the fieldName starts with - then a must not filter is used</p> <p>* If the fieldName starts with ~ then a must not filter is used</p> <p>For more details, check <a href="https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md">https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md</a></p>	Operator	Description	value type		:	{fieldName} equals {value}   numeric or strings	:gte:	{fieldName} is greater than or equal to {value}   numeric	:gt:	{fieldName} is greater than {value}   numeric	:lte:	{fieldName} is less than or equal to {value}   numeric	:lt:	{fieldName} is less than {value}   numeric	< string > array(multi)	
Operator	Description																	
value type																		
:	{fieldName} equals {value}   numeric or strings																	
:gte:	{fieldName} is greater than or equal to {value}   numeric																	
:gt:	{fieldName} is greater than {value}   numeric																	
:lte:	{fieldName} is less than or equal to {value}   numeric																	
:lt:	{fieldName} is less than {value}   numeric																	

Type	Name	Description	Schema	Default
Query	<b>from</b> <i>optional</i>	From index to start the search from. Defaults to 0.	integer(int32)	"0"
Query	<b>gintersect</b> <i>optional</i>	Any element having its geometry intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>gwithin</b> <i>optional</i>	Any element having its geometry contained within the given geometry (WKT)	< string > array(multi)	
Query	<b>human</b> <i>optional</i>	Human readable print	boolean	"false"
Query	<b>max-age-cache</b> <i>optional</i>	max-age-cache	integer(int32)	
Query	<b>notgintersect</b> <i>optional</i>	Any element having its geometry not intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>notgwithin</b> <i>optional</i>	Any element having its geometry outside the given geometry (WKT)	< string > array(multi)	
Query	<b>notpwithin</b> <i>optional</i>	Any element having its centroid outside the given geometry (WKT)	< string > array(multi)	
Query	<b>pretty</b> <i>optional</i>	Pretty print	boolean	"false"
Query	<b>pwithin</b> <i>optional</i>	Any element having its centroid contained within the given geometry (WKT)	< string > array(multi)	
Query	<b>q</b> <i>optional</i>	A full text search	string	
Query	<b>size</b> <i>optional</i>	The maximum number of entries or sub-entries to be returned. The default value is 10	integer(int32)	"10"
Query	<b>sort</b> <i>optional</i>	<p>* Sort the result on the given fields ascending or descending.</p> <p>* Fields can be provided several times by separating them with a comma. The order matters.</p> <p>* For a descending sort, precede the field with '-'. The sort will be ascending otherwise.</p> <p>* For aggregation, provide the <b>agg</b> keyword as the <b>{field}</b>.</p>	< string > array(multi)	

## Responses

HTTP Code	Description	Schema
200	Successful operation	No Content

## Consumes

- `application/json; charset=utf-8`

## Produces

- `application/json; charset=utf-8`

### 2.2.3. Aggregate

```
GET /explore/{collections}/_geoaggregate
```

## Description

Aggregate the elements in the collection(s), given the filters and the aggregation parameters

## Parameters

Type	Name	Description	Schema	Default
Path	<b>collections</b> <i>required</i>	collections, comma separated	string	
Query	<b>after</b> <i>optional</i>	Any element having its point in time reference after the given timestamp	integer(int64)	

Type	Name	Description	Schema	Default
Query	<b>agg</b> <i>required</i>	<p>* The agg parameter should be given in the following formats:</p> <pre>{type}:{field}:interval-{interval}:format- {format}:collect_field- {collect_field}:collect_fct-{function}:order- {order}:on-{on}</pre> <p>Where the {type}:{field} part is mandatory AND interval, format, collect_field, collect_fct, order AND on are optional sub-parameters.</p> <p>* {type} possible value is : geohash.</p> <p>* {interval} must be a numeric value.</p> <p>* format-{format} is to be specified when {type} = datehistogram. It's the date format for key aggregation.</p> <p>* {collect_fct} is the aggregation function to apply to collections on the specified {collect_field}.</p> <p>{collect_fct} possible values are :</p> <pre>---- avg,cardinality,max,min,sum ----</pre> <p>* {order} is set to sort the aggregation result on the field name or on the result itself. It's values are 'asc' or 'desc'.</p> <p>* {on} is set to specify whether the {order} is on the field name or the result. It's values are 'field' or 'result'.</p> <p>agg parameter in this case is not multiple.</p> <p>For more details, check <a href="https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md">https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md</a></p>	< string > array(multi)	
Query	<b>before</b> <i>optional</i>	Any element having its point in time reference before the given timestamp	integer(int64)	

Type	Name	Description	Schema	Default												
Query	f optional	<p>* A triplet for filtering the result. Multiple filter can be provided. The order does not matter.</p> <p>* A triplet is composed of a field name, a comparison operator and a value.</p> <p>The possible values of the comparison operator are :</p> <p>----</p> <table><tr><th>Operator</th><th>Description</th></tr><tr><td>:   {fieldName} equals {value}</td><td>  numeric or strings</td></tr><tr><td>:gte:   {fieldName} is greater than or equal to {value}</td><td>  numeric</td></tr><tr><td>:gt:   {fieldName} is greater than {value}</td><td>  numeric</td></tr><tr><td>:lte:   {fieldName} is less than or equal to {value}</td><td>  numeric</td></tr><tr><td>:lt:   {fieldName} is less than {value}</td><td>  numeric</td></tr></table> <p>----</p> <p>* The AND operator is applied between filters having different fieldNames.</p> <p>* The OR operator is applied on filters having the same fieldName.</p> <p>* If the fieldName starts with - then a must not filter is used</p> <p>* If the fieldName starts with ~ then a must not filter is used</p> <p>For more details, check <a href="https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md">https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md</a></p>	Operator	Description	:   {fieldName} equals {value}	numeric or strings	:gte:   {fieldName} is greater than or equal to {value}	numeric	:gt:   {fieldName} is greater than {value}	numeric	:lte:   {fieldName} is less than or equal to {value}	numeric	:lt:   {fieldName} is less than {value}	numeric	< string > array(multi)	
Operator	Description															
:   {fieldName} equals {value}	numeric or strings															
:gte:   {fieldName} is greater than or equal to {value}	numeric															
:gt:   {fieldName} is greater than {value}	numeric															
:lte:   {fieldName} is less than or equal to {value}	numeric															
:lt:   {fieldName} is less than {value}	numeric															

Type	Name	Description	Schema	Default
Query	<b>from</b> <i>optional</i>	From index to start the search from. Defaults to 0.	integer(int32)	"0"
Query	<b>gintersect</b> <i>optional</i>	Any element having its geometry intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>gwithin</b> <i>optional</i>	Any element having its geometry contained within the given geometry (WKT)	< string > array(multi)	
Query	<b>human</b> <i>optional</i>	Human readable print	boolean	"false"
Query	<b>max-age-cache</b> <i>optional</i>	max-age-cache	integer(int32)	
Query	<b>notgintersect</b> <i>optional</i>	Any element having its geometry not intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>notgwithin</b> <i>optional</i>	Any element having its geometry outside the given geometry (WKT)	< string > array(multi)	
Query	<b>notpwithin</b> <i>optional</i>	Any element having its centroid outside the given geometry (WKT)	< string > array(multi)	
Query	<b>pretty</b> <i>optional</i>	Pretty print	boolean	"false"
Query	<b>pwithin</b> <i>optional</i>	Any element having its centroid contained within the given geometry (WKT)	< string > array(multi)	
Query	<b>q</b> <i>optional</i>	A full text search	string	
Query	<b>size</b> <i>optional</i>	The maximum number of entries or sub-entries to be returned. The default value is 10	integer(int32)	"10"
Query	<b>sort</b> <i>optional</i>	Sort the result on a given field, ascending or descending : '{fieldName}:(ASC, DESC)' .  The parameter can be provided several times. The order matters.  For aggregation, provide the 'agg' keyword as the {fieldName}.	< string > array(multi)	

## Responses



HTTP Code	Description	Schema
200	Successful operation	No Content

#### Consumes

- `application/json; charset=utf-8`

#### Produces

- `application/json; charset=utf-8`

### 2.2.4. Suggest

```
GET /explore/{collections}/_suggest
```

#### Description

Suggest the the n (n=size) most relevant terms given the filters

#### Parameters

Type	Name	Description	Schema	Default
Path	<b>collections</b> <i>required</i>	collections, comma separated	string	
Query	<b>after</b> <i>optional</i>	Any element having its point in time reference after the given timestamp	integer(int64)	
Query	<b>before</b> <i>optional</i>	Any element having its point in time reference before the given timestamp	integer(int64)	

Type	Name	Description	Schema	Default												
Query	<b>f</b> <i>optional</i>	<p>* A triplet for filtering the result. Multiple filter can be provided. The order does not matter.</p> <p>* A triplet is composed of a field name, a comparison operator and a value.</p> <p>The possible values of the comparison operator are :</p> <p>----</p> <table><tr><th>Operator</th><th>Description</th></tr><tr><td>:   {fieldName} equals {value}</td><td>  numeric or strings</td></tr><tr><td>:gte:   {fieldName} is greater than or equal to {value}</td><td>  numeric</td></tr><tr><td>:gt:   {fieldName} is greater than {value}</td><td>  numeric</td></tr><tr><td>:lte:   {fieldName} is less than or equal to {value}</td><td>  numeric</td></tr><tr><td>:lt:   {fieldName} is less than {value}</td><td>  numeric</td></tr></table> <p>----</p> <p>* The AND operator is applied between filters having different fieldNames.</p> <p>* The OR operator is applied on filters having the same fieldName.</p> <p>* If the fieldName starts with - then a must not filter is used</p> <p>* If the fieldName starts with ~ then a must not filter is used</p> <p>For more details, check <a href="https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md">https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md</a></p>	Operator	Description	:   {fieldName} equals {value}	numeric or strings	:gte:   {fieldName} is greater than or equal to {value}	numeric	:gt:   {fieldName} is greater than {value}	numeric	:lte:   {fieldName} is less than or equal to {value}	numeric	:lt:   {fieldName} is less than {value}	numeric	< string > array(multi)	
Operator	Description															
:   {fieldName} equals {value}	numeric or strings															
:gte:   {fieldName} is greater than or equal to {value}	numeric															
:gt:   {fieldName} is greater than {value}	numeric															
:lte:   {fieldName} is less than or equal to {value}	numeric															
:lt:   {fieldName} is less than {value}	numeric															

Type	Name	Description	Schema	Default
Query	<b>field</b> <i>optional</i>	Name of the field to be used for retrieving the most relevant terms	string	"_all"
Query	<b>from</b> <i>optional</i>	From index to start the search from. Defaults to 0.	integer(int32)	"0"
Query	<b>gintersect</b> <i>optional</i>	Any element having its geometry intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>gwithin</b> <i>optional</i>	Any element having its geometry contained within the given geometry (WKT)	< string > array(multi)	
Query	<b>human</b> <i>optional</i>	Human readable print	boolean	"false"
Query	<b>max-age-cache</b> <i>optional</i>	max-age-cache	integer(int32)	
Query	<b>notgintersect</b> <i>optional</i>	Any element having its geometry not intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>notgwithin</b> <i>optional</i>	Any element having its geometry outside the given geometry (WKT)	< string > array(multi)	
Query	<b>notpwithin</b> <i>optional</i>	Any element having its centroid outside the given geometry (WKT)	< string > array(multi)	
Query	<b>pretty</b> <i>optional</i>	Pretty print	boolean	"false"
Query	<b>pwithin</b> <i>optional</i>	Any element having its centroid contained within the given geometry (WKT)	< string > array(multi)	
Query	<b>q</b> <i>optional</i>	A full text search	string	
Query	<b>size</b> <i>optional</i>	The maximum number of entries or sub-entries to be returned. The default value is 10	integer(int32)	"10"

## Responses

HTTP Code	Description	Schema
200	Successful operation	No Content

## Consumes

- `application/json;charset=utf-8`

## Produces

- `application/json; charset=utf-8`

## 2.2.5. Count

```
GET /explore/{collection}/_count
```

## Description

Count the number of elements found in the collection(s), given the filters

## Parameters

Type	Name	Description	Schema	Default
Path	<b>collection</b> <i>required</i>	collections	string	
Query	<b>after</b> <i>optional</i>	Any element having its point in time reference after the given timestamp	integer(int64)	
Query	<b>before</b> <i>optional</i>	Any element having its point in time reference before the given timestamp	integer(int64)	

Type	Name	Description	Schema	Default														
Query	f optional	<p>* A triplet for filtering the result. Multiple filter can be provided. The order does not matter.</p> <p>* A triplet is composed of a field name, a comparison operator and a value.</p> <p>The possible values of the comparison operator are :</p> <p>----</p> <table><tr><th>Operator</th><th>Description</th></tr><tr><td>  value type</td><td></td></tr><tr><td>:</td><td>  {fieldName} equals {value}   numeric or strings</td></tr><tr><td>:gte:</td><td>  {fieldName} is greater than or equal to {value}   numeric</td></tr><tr><td>:gt:</td><td>  {fieldName} is greater than {value}   numeric</td></tr><tr><td>:lte:</td><td>  {fieldName} is less than or equal to {value}   numeric</td></tr><tr><td>:lt:</td><td>  {fieldName} is less than {value}   numeric</td></tr></table> <p>----</p> <p>* The AND operator is applied between filters having different fieldNames.</p> <p>* The OR operator is applied on filters having the same fieldName.</p> <p>* If the fieldName starts with - then a must not filter is used</p> <p>* If the fieldName starts with ~ then a must not filter is used</p> <p>For more details, check <a href="https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md">https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md</a></p>	Operator	Description	value type		:	{fieldName} equals {value}   numeric or strings	:gte:	{fieldName} is greater than or equal to {value}   numeric	:gt:	{fieldName} is greater than {value}   numeric	:lte:	{fieldName} is less than or equal to {value}   numeric	:lt:	{fieldName} is less than {value}   numeric	< string > array(multi)	
Operator	Description																	
value type																		
:	{fieldName} equals {value}   numeric or strings																	
:gte:	{fieldName} is greater than or equal to {value}   numeric																	
:gt:	{fieldName} is greater than {value}   numeric																	
:lte:	{fieldName} is less than or equal to {value}   numeric																	
:lt:	{fieldName} is less than {value}   numeric																	

Type	Name	Description	Schema	Default
Query	<b>gintersect</b> <i>optional</i>	Any element having its geometry intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>gwithin</b> <i>optional</i>	Any element having its geometry contained within the given geometry (WKT)	< string > array(multi)	
Query	<b>human</b> <i>optional</i>	Human readable print	boolean	"false"
Query	<b>max-age-cache</b> <i>optional</i>	max-age-cache	integer(int32)	
Query	<b>notgintersect</b> <i>optional</i>	Any element having its geometry not intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>notgwithin</b> <i>optional</i>	Any element having its geometry outside the given geometry (WKT)	< string > array(multi)	
Query	<b>notpwithin</b> <i>optional</i>	Any element having its centroid outside the given BBOX (top,left,bottom,right)	< string > array(multi)	
Query	<b>pretty</b> <i>optional</i>	Pretty print	boolean	"false"
Query	<b>pwithin</b> <i>optional</i>	Any element having its centroid contained within the given BBOX (top,left,bottom,right)	< string > array(multi)	
Query	<b>q</b> <i>optional</i>	A full text search	string	

## Responses

HTTP Code	Description	Schema
200	Successful operation	No Content

## Consumes

- `application/json; charset=utf-8`

## Produces

- `application/json; charset=utf-8`

## 2.2.6. Describe

```
GET /explore/{collection}/_describe
```

## Description

Describe the structure and the content of the given collection.

## Parameters

Type	Name	Description	Schema	Default
Path	<b>collection</b> <i>required</i>	collection	string	
Query	<b>human</b> <i>optional</i>	Human readable print	boolean	"false"
Query	<b>max-age-cache</b> <i>optional</i>	max-age-cache	integer(int32)	
Query	<b>pretty</b> <i>optional</i>	Pretty print	boolean	"false"

## Responses

HTTP Code	Description	Schema
200	Successful operation	No Content

## Consumes

- `application/json; charset=utf-8`

## Produces

- `application/json; charset=utf-8`

## 2.2.7. Geosearch

```
GET /explore/{collection}/_geosearch
```

## Description

Search and return the elements found in the collection(s) as features, given the filters

## Parameters

Type	Name	Description	Schema	Default
Path	<b>collection</b> <i>required</i>	collection	string	
Query	<b>after</b> <i>optional</i>	Any element having its point in time reference after the given timestamp	integer(int64)	
Query	<b>before</b> <i>optional</i>	Any element having its point in time reference before the given timestamp	integer(int64)	
Query	<b>exclude</b> <i>optional</i>	List the name patterns of the field to be excluded in the result. Seperate patterns with a comma.	< string > array(multi)	



Type	Name	Description	Schema	Default														
Query	f optional	<p>* A triplet for filtering the result. Multiple filter can be provided. The order does not matter.</p> <p>* A triplet is composed of a field name, a comparison operator and a value.</p> <p>The possible values of the comparison operator are :</p> <p>----</p> <table><thead><tr><th>Operator</th><th>Description</th></tr></thead><tbody><tr><td>  value type</td><td></td></tr><tr><td>:</td><td>  {fieldName} equals {value}   numeric or strings</td></tr><tr><td>:gte:</td><td>  {fieldName} is greater than or equal to {value}   numeric</td></tr><tr><td>:gt:</td><td>  {fieldName} is greater than {value}   numeric</td></tr><tr><td>:lte:</td><td>  {fieldName} is less than or equal to {value}   numeric</td></tr><tr><td>:lt:</td><td>  {fieldName} is less than {value}   numeric</td></tr></tbody></table> <p>----</p> <p>* The AND operator is applied between filters having different fieldNames.</p> <p>* The OR operator is applied on filters having the same fieldName.</p> <p>* If the fieldName starts with - then a must not filter is used</p> <p>* If the fieldName starts with ~ then a must not filter is used</p> <p>For more details, check <a href="https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md">https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md</a></p>	Operator	Description	value type		:	{fieldName} equals {value}   numeric or strings	:gte:	{fieldName} is greater than or equal to {value}   numeric	:gt:	{fieldName} is greater than {value}   numeric	:lte:	{fieldName} is less than or equal to {value}   numeric	:lt:	{fieldName} is less than {value}   numeric	< string > array(multi)	
Operator	Description																	
value type																		
:	{fieldName} equals {value}   numeric or strings																	
:gte:	{fieldName} is greater than or equal to {value}   numeric																	
:gt:	{fieldName} is greater than {value}   numeric																	
:lte:	{fieldName} is less than or equal to {value}   numeric																	
:lt:	{fieldName} is less than {value}   numeric																	

Type	Name	Description	Schema	Default
Query	<b>from</b> <i>optional</i>	From index to start the search from. Defaults to 0.	integer(int32)	"0"
Query	<b>gintersect</b> <i>optional</i>	Any element having its geometry intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>gwithin</b> <i>optional</i>	Any element having its geometry contained within the given geometry (WKT)	< string > array(multi)	
Query	<b>human</b> <i>optional</i>	Human readable print	boolean	"false"
Query	<b>include</b> <i>optional</i>	List the name patterns of the field to be included in the result. Seperate patterns with a comma.	< string > array(multi)	
Query	<b>max-age-cache</b> <i>optional</i>	max-age-cache	integer(int32)	
Query	<b>notgintersect</b> <i>optional</i>	Any element having its geometry not intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>notgwithin</b> <i>optional</i>	Any element having its geometry outside the given geometry (WKT)	< string > array(multi)	
Query	<b>notpwithin</b> <i>optional</i>	Any element having its centroid outside the given BBOX (top,left,bottom,right)	< string > array(multi)	
Query	<b>pretty</b> <i>optional</i>	Pretty print	boolean	"false"
Query	<b>pwithin</b> <i>optional</i>	Any element having its centroid contained within the given BBOX (top,left,bottom,right)	< string > array(multi)	
Query	<b>q</b> <i>optional</i>	A full text search	string	
Query	<b>size</b> <i>optional</i>	The maximum number of entries or sub-entries to be returned. The default value is 10	integer(int32)	"10"

Type	Name	Description	Schema	Default
Query	<b>sort</b> <i>optional</i>	<p>* Sort the result on the given fields ascending or descending.</p> <p>* Fields can be provided several times by separating them with a comma. The order matters.</p> <p>* For a descending sort, precede the field with '-'. The sort will be ascending otherwise.</p> <p>* For aggregation, provide the <b>agg</b> keyword as the <b>{field}</b>.</p>	< string > array(multi)	

## Responses

HTTP Code	Description	Schema
200	Successful operation	No Content

## Consumes

- **application/json; charset=utf-8**

## Produces

- **application/json; charset=utf-8**

## 2.2.8. Search

```
GET /explore/{collection}/_search
```

## Description

Search and return the elements found in the collection, given the filters

## Parameters

Type	Name	Description	Schema	Default
Path	<b>collection</b> <i>required</i>	collection	string	
Query	<b>after</b> <i>optional</i>	Any element having its point in time reference after the given timestamp	integer(int64)	

Type	Name	Description	Schema	Default
Query	<b>before</b> <i>optional</i>	Any element having its point in time reference before the given timestamp	integer(int64)	
Query	<b>exclude</b> <i>optional</i>	List the name patterns of the field to be excluded in the result. Seperate patterns with a comma.	< string > array(multi)	

Type	Name	Description	Schema	Default														
Query	f optional	<p>* A triplet for filtering the result. Multiple filter can be provided. The order does not matter.</p> <p>* A triplet is composed of a field name, a comparison operator and a value.</p> <p>The possible values of the comparison operator are :</p> <p>----</p> <table><thead><tr><th>Operator</th><th>Description</th></tr></thead><tbody><tr><td>  value type</td><td></td></tr><tr><td>:</td><td>  {fieldName} equals {value}   numeric or strings</td></tr><tr><td>:gte:</td><td>  {fieldName} is greater than or equal to {value}   numeric</td></tr><tr><td>:gt:</td><td>  {fieldName} is greater than {value}   numeric</td></tr><tr><td>:lte:</td><td>  {fieldName} is less than or equal to {value}   numeric</td></tr><tr><td>:lt:</td><td>  {fieldName} is less than {value}   numeric</td></tr></tbody></table> <p>----</p> <p>* The AND operator is applied between filters having different fieldNames.</p> <p>* The OR operator is applied on filters having the same fieldName.</p> <p>* If the fieldName starts with - then a must not filter is used</p> <p>* If the fieldName starts with ~ then a must not filter is used</p> <p>For more details, check <a href="https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md">https://gitlab.com/GISAIA.ARLAS/ARLAS-server/blob/master/doc/api/API-definition.md</a></p>	Operator	Description	value type		:	{fieldName} equals {value}   numeric or strings	:gte:	{fieldName} is greater than or equal to {value}   numeric	:gt:	{fieldName} is greater than {value}   numeric	:lte:	{fieldName} is less than or equal to {value}   numeric	:lt:	{fieldName} is less than {value}   numeric	< string > array(multi)	
Operator	Description																	
value type																		
:	{fieldName} equals {value}   numeric or strings																	
:gte:	{fieldName} is greater than or equal to {value}   numeric																	
:gt:	{fieldName} is greater than {value}   numeric																	
:lte:	{fieldName} is less than or equal to {value}   numeric																	
:lt:	{fieldName} is less than {value}   numeric																	

Type	Name	Description	Schema	Default
Query	<b>from</b> <i>optional</i>	From index to start the search from. Defaults to 0.	integer(int32)	"0"
Query	<b>gintersect</b> <i>optional</i>	Any element having its geometry intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>gwithin</b> <i>optional</i>	Any element having its geometry contained within the given geometry (WKT)	< string > array(multi)	
Query	<b>human</b> <i>optional</i>	Human readable print	boolean	"false"
Query	<b>include</b> <i>optional</i>	List the name patterns of the field to be included in the result. Seperate patterns with a comma.	< string > array(multi)	
Query	<b>max-age-cache</b> <i>optional</i>	max-age-cache	integer(int32)	
Query	<b>notgintersect</b> <i>optional</i>	Any element having its geometry not intersecting the given geometry (WKT)	< string > array(multi)	
Query	<b>notgwithin</b> <i>optional</i>	Any element having its geometry outside the given geometry (WKT)	< string > array(multi)	
Query	<b>notpwithin</b> <i>optional</i>	Any element having its centroid outside the given BBOX (top,left,bottom,right)	< string > array(multi)	
Query	<b>pretty</b> <i>optional</i>	Pretty print	boolean	"false"
Query	<b>pwithin</b> <i>optional</i>	Any element having its centroid contained within the given BBOX (top,left,bottom,right)	< string > array(multi)	
Query	<b>q</b> <i>optional</i>	A full text search	string	
Query	<b>size</b> <i>optional</i>	The maximum number of entries or sub-entries to be returned. The default value is 10	integer(int32)	"10"

Type	Name	Description	Schema	Default
Query	<b>sort</b> <i>optional</i>	<p>* Sort the result on the given fields ascending or descending.</p> <p>* Fields can be provided several times by separating them with a comma. The order matters.</p> <p>* For a descending sort, precede the field with '-'. The sort will be ascending otherwise.</p> <p>* For aggregation, provide the <b>agg</b> keyword as the <b>{field}</b>.</p>	string	

## Responses

HTTP Code	Description	Schema
200	Successful operation	<a href="#">ArlasHits</a>

## Consumes

- **application/json; charset=utf-8**

## Produces

- **application/json; charset=utf-8**

# Chapter 3. Definitions

## 3.1. ArlasAggregation

Type : object

## 3.2. ArlasError

Name	Schema
<b>error</b> <i>optional</i>	string
<b>message</b> <i>optional</i>	string
<b>status</b> <i>optional</i>	integer(int32)

## 3.3. ArlasHit

A hit retrieved from an ARLAS Collection

Name	Description	Schema
<b>data</b> <i>optional</i>	The hit's data	object
<b>md</b> <i>optional</i>	The hit's metadata	<a href="#">ArlasMD</a>

## 3.4. ArlasHits

A collection of hits retrieved from ARLAS Collections

Name	Description	Schema
<b>hits</b> <i>optional</i>	ARLAS hits	< <a href="#">ArlasHit</a> > array
<b>nbhits</b> <i>optional</i>	Number of hits contained in hits	integer(int64)
<b>totalnb</b> <i>optional</i>	Total number of hits matching the query	integer(int64)



## 3.5. ArlasMD

Metadata of the ARLAS hit

Name	Description	Schema
<b>centroid</b> <i>optional</i>	The centroid of the hit	<a href="#">Point</a>
<b>geometry</b> <i>optional</i>	The geometry of the hit	object
<b>id</b> <i>optional</i>	The unique identifier of the hit	string
<b>timestamp</b> <i>optional</i>	The timestamp of the hit	integer(int64)

## 3.6. ArlasSuccess

Name	Schema
<b>message</b> <i>optional</i>	string
<b>status</b> <i>optional</i>	integer(int32)

## 3.7. CollectionReference

The reference to ARLAS collection that embed elasticsearch index description.

Name	Description	Schema
<b>collection_name</b> <i>optional</i>	The collection name	string
<b>params</b> <i>optional</i>	The collection parameters	<a href="#">CollectionReferenceParameters</a>

## 3.8. CollectionReferenceParameters

The description of the elasticsearch index and the way ARLAS API will serve it.

Name	Description	Schema
<b>centroid_path</b> <i>optional</i>	Path to the collection's centroid <b>Example :</b> "centroid"	string
<b>geometry_path</b> <i>optional</i>	Path to the collection's geometry <b>Example :</b> "geometry"	string
<b>id_path</b> <i>optional</i>	Path to the collection's id <b>Example :</b> "id"	string
<b>index_name</b> <i>optional</i>	The collection's index name	string
<b>timestamp_path</b> <i>optional</i>	Path to the collection's timestamp <b>Example :</b> "timestamp"	string
<b>type_name</b> <i>optional</i>	The collection's type name	string

### 3.9. Crs

Name	Schema
<b>properties</b> <i>optional</i>	< string, object > map
<b>type</b> <i>optional</i>	enum (name, link)

### 3.10. Feature

Name	Schema
<b>bbox</b> <i>optional</i>	< number(double) > array
<b>crs</b> <i>optional</i>	<a href="#">Crs</a>
<b>geometry</b> <i>optional</i>	<a href="#">GeoJsonObject</a>
<b>id</b> <i>optional</i>	string
<b>properties</b> <i>optional</i>	< string, object > map

## 3.11. FeatureCollection

Name	Schema
<b>bbox</b> <i>optional</i>	< number(double) > array
<b>crs</b> <i>optional</i>	<a href="#">Crs</a>
<b>features</b> <i>optional</i>	< <a href="#">Feature</a> > array

## 3.12. GeoJsonObject

Name	Schema
<b>bbox</b> <i>optional</i>	< number(double) > array
<b>crs</b> <i>optional</i>	<a href="#">Crs</a>

## 3.13. GeometryCollection

*Polymorphism* : Inheritance

*Discriminator* : type

Name	Schema
<b>bbox</b> <i>optional</i>	< number(double) > array
<b>crs</b> <i>optional</i>	<a href="#">Crs</a>
<b>geometries</b> <i>optional</i>	< <a href="#">GeoJsonObject</a> > array

## 3.14. LineString

*Polymorphism* : Inheritance

*Discriminator* : type

Name	Schema
<b>bbox</b> <i>optional</i>	< number(double) > array
<b>coordinates</b> <i>optional</i>	< <a href="#">LngLatAlt</a> > array
<b>crs</b> <i>optional</i>	<a href="#">Crs</a>

## 3.15. LngLatAlt

Name	Schema
<b>additionalElements</b> <i>optional</i>	< number(double) > array
<b>altitude</b> <i>optional</i>	number(double)
<b>latitude</b> <i>optional</i>	number(double)
<b>longitude</b> <i>optional</i>	number(double)

## 3.16. MultiLineString

*Polymorphism* : Inheritance

*Discriminator* : type

Name	Schema
<b>bbox</b> <i>optional</i>	< number(double) > array
<b>coordinates</b> <i>optional</i>	< < <a href="#">LngLatAlt</a> > array > array
<b>crs</b> <i>optional</i>	<a href="#">Crs</a>

## 3.17. MultiPoint

*Polymorphism* : Inheritance

*Discriminator* : type

Name	Schema
<b>bbox</b> <i>optional</i>	< number(double) > array
<b>coordinates</b> <i>optional</i>	< <a href="#">LngLatAlt</a> > array
<b>crs</b> <i>optional</i>	<a href="#">Crs</a>

## 3.18. MultiPolygon

*Polymorphism* : Inheritance

*Discriminator* : type

Name	Schema
<b>bbox</b> <i>optional</i>	< number(double) > array
<b>coordinates</b> <i>optional</i>	< < < <a href="#">LngLatAlt</a> > array > array > array
<b>crs</b> <i>optional</i>	<a href="#">Crs</a>

## 3.19. Point

Name	Schema
<b>bbox</b> <i>optional</i>	< number(double) > array
<b>coordinates</b> <i>optional</i>	<a href="#">LngLatAlt</a>
<b>crs</b> <i>optional</i>	<a href="#">Crs</a>

## 3.20. Polygon

*Polymorphism* : Inheritance

*Discriminator* : type

Name	Schema
<b>bbox</b> <i>optional</i>	< number(double) > array
<b>coordinates</b> <i>optional</i>	< < <a href="#">LngLatAlt</a> > array > array
<b>crs</b> <i>optional</i>	<a href="#">Crs</a>