

# FactMaps API

This document provides an overview of resources and examples for making calls to the FactMaps REST API. The API is publicly accessible and does not require authentication.

## General overview

The URL <https://factmaps.sodir.no/api/rest/services/> contains a list of all services.

Each service, such

as <https://factmaps.sodir.no/api/rest/services/Factmaps/FactMapsED50UTM32/MapServer>, includes multiple layers and tables. Layers contain geographic data, while tables do not. Layers and tables can have relationships, which can be used in queries.

A query to the services can be structured as follows:

**Service** + **layer/table** + **query** + **outFields** + **format**

Example query:

[https://factmaps.sodir.no/api/rest/services/Factmaps/FactMapsED50UTM32/MapServer/304/query?1=1&outFields=\\*&f=pjson](https://factmaps.sodir.no/api/rest/services/Factmaps/FactMapsED50UTM32/MapServer/304/query?1=1&outFields=*&f=pjson)

Parameters have default values if not specified. The “format” is returned, for example, in HTML, and “outFields” returns only display names and geometry unless otherwise specified.

For an overview of all parameters that can be set in the query, see the provider's documentation [here](#):

[Query \(Map Service/Layer\) | ArcGIS REST APIs | ArcGIS Developers](#)

PS. It is only possible to retrieve 1000 objects per query. If the response to the query contains more than 1000, the query must handle this by splitting it up. For example, by using OBJECTID.

## Eksempelspøringer:

*Lisens, eller enkelt oppføring av en objekttype*

```
https://factmaps.sodir.no/api/rest/services/Factmaps/FactMapsED50UTM32/MapServer/614/query?where=prlName%3D%27001%27&text=&objectId=&time=&geometry=&geometryType=esriGeometryEnvelope&inSR=&spatialRel=esriSpatialRelIntersects&relationParam=&outFields=*&returnGeometry=true&returnTrueCurves=false&maxAllowableOffset=&geometryPrecision=&outSR=&having=&returnIdsOnly=false&returnCountOnly=false&orderByFields=&groupByFieldsForStatistics=&outStatistics=&returnZ=false&returnM=false&gdbVersion=&historicMoment=&returnDistinctValues=false&resultOffset=&resultRecordCount=&queryByDistance=&returnExtentOnly=false&datumTransformation=&parameterValues=&rangeValues=&quantizationParameters=&f=pjson
```

Note that in the interface, you can also define various output formats, which attributes should be included, reference systems, etc. In this example, all parameters are color-coded with a background colour to illustrate how they can be set.

### *Production licences - all current - All features*

All licenses, specified reference system ED50 geographic, instead of the standard ED50-UTM32.

```
https://factmaps.sodir.no/api/rest/services/Factmaps/FactMapsED50UTM32/MapServer/614/query?where=1%3D1&text=&objectIds=&time=&geometry=&geometryType=esriGeometryEnvelope&inSR=&spatialRel=esriSpatialRelIntersects&relationParam=&outFields=*&returnGeometry=true&returnTrueCurves=false&maxAllowableOffset=&geometryPrecision=&outSR=4230&having=&returnIdsOnly=false&returnCountOnly=false&orderByFields=&groupByFieldsForStatistics=&outStatistics=&returnZ=false&returnM=false&gdbVersion=&historicMoment=&returnDistinctValues=false&resultOffset=&resultRecordCount=&queryByDistance=&returnExtentOnly=false&datumTransformation=&parameterValues=&rangeValues=&quantizationParameters=&f=html
```

### *Surveys*

All surveys with geometry NOT IN 'Ferdig'

```
https://factmaps.sodir.no/api/rest/services/Factmaps/FactMapsED50UTM32/MapServer/420/query?where=seaStatus+NOT+IN+%28%27Ferdig%27%29&text=&objectIds=&time=&geometry=&geometryType=esriGeometryEnvelope&inSR=&spatialRel=esriSpatialRelIntersects&relationParam=&outFields=*&returnGeometry=true&returnTrueCurves=false&maxAllowableOffset=&geometryPrecision=&outSR=&having=&returnIdsOnly=false&returnCountOnly=false&orderByFields=&groupByFieldsForStatistics=&outStatistics=&returnZ=false&returnM=false&gdbVersion=&historicMoment=&returnDistinctValues=false&resultOffset=&resultRecordCount=&queryByDistance=&returnExtentOnly=false&datumTransformation=&parameterValues=&rangeValues=&quantizationParameters=&f=html
```

## Query relaterte records

### *Discovery*

Layer 504 has the geometry for the entire discovery, as well as all attributes. Layer 503 has the geometry for all individual discovery types under one discovery, with separate polygons for gas, oil, gas/oil. For example, the Troll field. This layer does not include all attributes, as you can see if you check the two links and see which attributes are available. Therefore, a relationship class has been created between the two layers, and you can make queries against the related tables.

Example: Here, I use a regular "Query" and query against 504 to get discovery 31/6-1 (Troll East) and include some selected attributes.

<https://factmaps.sodir.no/api/rest/services/Factmaps/FactMapsED50UTM32/MapServer/504/query?where=dscName%3D%2731%2F6-1+%28Troll+%C3%98st%29%27&text=&objectIds=&time=&geometry=&geometryType=esriGeometryEnvelope&inSR=&spatialRel=esriSpatialRelIntersects&relationParam=&outFields=ObjectID%2CdscName%2CdscCurrentActivityStatus&returnGeometry=true&returnTrueCurves=false&maxAllowableOffset=&geometryPrecision=&outSR=&having=&returnIdsOnly=false&returnCountOnly=false&orderByFields=&groupByFieldsForStatistics=&outStatistics=&returnZ=false&returnM=false&gdbVersion=&historicMoment=&returnDistinctValues=false&resultOffset=&resultRecordCount=&queryByDistance=&returnExtentOnly=false&datumTransformation=&parameterValues=&rangeValues=&quantizationParameters=&f=html>

In addition to the regular "Query," there is also "Query related records." I used objectid 117 for Troll East and Relationship ID 55, which is the ID for the relationship class against layer 503.

[https://factmaps.sodir.no/api/rest/services/Factmaps/FactMapsED50UTM32/MapServer/504/queryRelatedRecords?objectIds=117&relationshipId=55&outFields=\\*&definitionExpression=&returnGeometry=true&maxAllowableOffset=&geometryPrecision=&outSR=&returnZ=false&returnM=false&gdbVersion=&datumTransformation=&f=html](https://factmaps.sodir.no/api/rest/services/Factmaps/FactMapsED50UTM32/MapServer/504/queryRelatedRecords?objectIds=117&relationshipId=55&outFields=*&definitionExpression=&returnGeometry=true&maxAllowableOffset=&geometryPrecision=&outSR=&returnZ=false&returnM=false&gdbVersion=&datumTransformation=&f=html)

På den måten kan man hente ut relaterte data men man må fremdeles massere dette sammen.

## Resources

<https://developers.arcgis.com/rest/>

<https://developers.arcgis.com/rest/services-reference/get-started-with-the-services-directory.htm>

[https://developers.arcgis.com/rest/services-reference/enterprise/output-formats/Query \(Map Service/Layer\) | ArcGIS REST APIs | ArcGIS Developers](https://developers.arcgis.com/rest/services-reference/enterprise/output-formats/Query%20(Map%20Service/Layer)%20|%20ArcGIS%20REST%20APIs%20|%20ArcGIS%20Developers)