

OpenSearch API User Guide

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1. Introduction

1.1. Purpose

This document provides end users guidance on usage of the ONDA OpenSearch API, exposed by the Catalogue, which allows interactive data discovery via computer programs/scripts.

2. OpenSearch API usage

2.1. How to send an OpenSearch API request

OpenSearch is an http-based API. OpenSearch requests can thus be sent with any Internet browser (like Chrome, Firefox, Internet Explorer, etc.)

An example of a single OpenSearch API request is here reported:

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?instrumentShortName=MSI>

2.2. OpenSearch Description Document

In OpenSearch, you can get description of a first level of information called Step 1, which is at the top level of the available collections. Then from the result of the Step 1, you can get detailed information of a collection which called Step 2. The two next sections present these steps 1 & 2. It is worth noting that, the OpenSearch Description Document (OSDD) can change according to new collections implemented in ONDA catalogue, and values presented hereunder, can be modified accordingly. You should request the OSDD (Step 1 & 2) regularly to check and update your application according to ONDA catalogue updates.

2.2.1. OpenSearch Description - Step1

Objective: Get description of available collections and possible values of parameters

Protocol: OpenSearch

Request:

<https://catalogue.onda-dias.eu/opensearch/OpenSearchDescription>

Response:

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<OpenSearchDescription
xmlns="http://a9.com/-/spec/opensearch/1.1/"
xmlns:time="http://a9.com/-/opensearch/extensions/time/1.0/"
xmlns:geo="http://a9.com/-/opensearch/extensions/geo/1.0/"
xmlns:inspire="http://onda-dias.eu/ns/opensearch/1.1/"
xmlns:inspire_dls="http://inspire.ec.europa.eu/schemas/inspire_dls/1.0"
xmlns:inspire_common="http://inspire.ec.europa.eu/schemas/common/1.0">
<ShortName>ONDA DIAS</ShortName>
<LongName>
Data set level OpenSearch interface for onda-dias.eu
```

```

</LongName>
<Description>
OpenSearch description document that describes how to query our server for data set level information. This service is currently in incubation; it is publicly accessible but the interface is not yet stable and custom elements are not documented.
</Description>
<Url type="application/opensearchdescription+xml" template="http://catalogue.onda-dias.eu/opensearch/OpenSearchDescription" rel="self"/>
<Url type="application/atom+xml" template="http://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms={value?}&spatial_dataset_identifier_code={inspire_dls:spatial_dataset_identifier_code?}&spatial_dataset_identifier_namespace={inspire_dls:spatial_dataset_identifier_namespace?}&language={language?}&footprint={footprint?}&loc={value?}&startDate={time:start?}&endDate={time:end?}&startIndex={startIndex?}&count={count?}&source={value?}&sortKeys={sru:sortKeys?}" rel="results"/>
<Url type="text/html" template="http://catalogue.onda-dias.eu/opensearch/OpenSearch?q={searchTerms?}" rel="results"/>
<Url type="application/inspire:facets+xml" template="http://catalogue.onda-dias.eu/opensearch/Facets?searchTerms={searchTerms?}&spatial_dataset_identifier_code={inspire_dls:spatial_dataset_identifier_code?}&spatial_dataset_identifier_namespace={inspire_dls:spatial_dataset_identifier_namespace?}&language={language?}&footprint={footprint?}&loc={geo:polygon?}&startDate={timeStart?}&endDate={timeEnd?}&startIndex={startIndex?}&count={maxRecords?}&source={inspire:source?}&sortKeys={sortKeys?}" />
<Url type="application/atom+xml" template="http://catalogue.onda-dias.eu/opensearch/id/{uuid}"/>
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<Parameter name="inspire_dls:spatial_dataset_identifier_namespace" value="{inspire_dls:spatial_dataset_identifier_namespace}" title="Unique resource identifier codespace" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="searchTerms" value="{value}" title="Extra non-standard queryable parameters"/>
<Parameter name="searchTerms" value="{value}" title="Extra non-standard queryable parameters"/>
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<Parameter name="language" value="{language}" title="Language" pattern="^[a-zA-Z\-\_]+$"/>
<Parameter name="footprint" value="{footprint}" title="Footprint"/>
<Parameter name="geo:polygon" value="{value}" title="title" minimum="min" maximum="max" pattern="pattern" minInclusive="minIncl" maxInclusive="maxIncl"/>
<Parameter name="timeStart" value="{time:start}" title="Search interval start time" minimum="0" maximum="1" pattern="^[0-9]{4}-[0-9]{2}-[0-9]{2}T[0-9]{2}:[0-9]{2}:[0-9]{2}(Z|[\+\-][0-9]{2}:[0-9]{2})$"/>
<Parameter name="timeEnd" value="{time:end}" title="Search interval end time" minimum="0" maximum="1" pattern="^[0-9]{4}-[0-9]{2}-[0-9]{2}T[0-9]{2}:[0-9]{2}:[0-9]{2}(Z|[\+\-][0-9]{2}:[0-9]{2})$"/>
<Parameter name="startIndex" value="{startIndex}" title="Start index of results" minimum="0" maximum="1" pattern="[0-9]+" minInclusive="1"/>
<Parameter name="maxRecords" value="{count}" title="Maximum results count" minimum="0" maximum="1" pattern="[0-9]+" minInclusive="0" maxInclusive="100"/>
<Parameter name="inspire:source" value="{value}" title="title"/>
<Parameter name="sortKeys" value="{sru:sortKeys}" title="Sort criteria directives" minimum="0" maximum="1"/>
<Parameter name="platformName" value="{platformName}" title="Platform name" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="platformShortName" value="{platformShortName}" title="Platform short name" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="platformSerialIdentifier" value="{platformSerialIdentifier}" title="Platform serial identifier" pattern="^[a-zA-Z0-9\-\_]+$"/>

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<Parameter name="platformNssdcid" value="{platformNssdcid}" title="Platform NSSDC identifier" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="instrumentName" value="{instrumentName}" title="Instrument name" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="instrumentShortName" value="{instrumentShortName}" title="Instrument short name" pattern="^[a-zA-Z0-9\-\_]+$"/>
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<Parameter name="swathIdentifier" value="{swathIdentifier}" title="Swath identifier" pattern="^[a-zA-Z0-9\-\_]+$"/>
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<Parameter name="processingDate" value="{processingDate}" title="Processing date" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="processorName" value="{processorName}" title="Processor name" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="processorVersion" value="{processorVersion}" title="Processor version" pattern="[0-9]+"/>
<Parameter name="creationDate" value="{creationDate}" title="Creation date" pattern="^[0-9]{4}-[0-9]{2}-[0-9]{2}T[0-9]{2}:[0-9]{2}:[0-9]{2}(Z|[\+\-][0-9]{2}:[0-9]{2})$"/>
<Parameter name="beginPosition" value="{beginPosition}" title="Begin position" pattern="^[0-9]{4}-[0-9]{2}-[0-9]{2}T[0-9]{2}:[0-9]{2}:[0-9]{2}(Z|[\+\-][0-9]{2}:[0-9]{2})$"/>
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<Parameter name="acquisitionStation" value="{acquisitionStation}" title="Acquisition station" pattern="^[a-zA-Z0-9\-\_]+$"/>
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<Parameter name="status" value="{status}" title="Status" pattern="^[a-zA-Z0-9\-\_]+$"/>
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<Parameter name="polarisationChannels" value="{polarisationChannels}" title="Polarisation channels" pattern="^[a-zA-Z0-9\-\_]+$"/>
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<Parameter name="lastOrbitDirection" value="{lastOrbitDirection}" title="Last orbit direction" pattern="^[a-zA-Z0-9\-\_]+$"/>
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<Parameter name="cycleNumber" value="{cycleNumber}" title="Cycle number" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="phaseIdentifier" value="{phaseIdentifier}" title="Phase identifier" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="footprint" value="{footprint}" title="Footprint"/>
<Parameter name="cloudCoverPercentage" value="{cloudCoverPercentage}" title="Cloud cover percentage" pattern="[0-9]+"/>
<Parameter name="filename" value="{filename}" title="Filename" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="productType" value="{productType}" title="Product Type" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="size" value="{size}" title="Size" pattern="[0-9]+"/>
<Parameter name="timeliness" value="{timeliness}" title="Timeliness" pattern="^[a-zA-Z0-9\-\_]+$"/>
<Parameter name="format" value="{format}" title="Format" pattern="^[a-zA-Z0-9\-\_]+$"/>

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<Parameter name="resourceTitle" value="{resourceTitle}" title="Resource title" pattern="^[a-zA-Z0-9\-\.\_]+\$/>
<Parameter name="resourceAbstract" value="{resourceAbstract}" title="Resource abstract" pattern="^[a-zA-Z0-9\-\.\_]+\$/>
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<Parameter name="resourceLocator" value="{Resource locator}" pattern="^[a-zA-Z0-9\-\.\_]+\$/>
<Parameter name="inspire_dls:spatial_dataset_identifier_namespace" value="{inspire_dls:spatial_dataset_identifier_namespace}" title="Unique resource identifier code" pattern="^[a-zA-Z0-9\-\.\_]+\$/>
<Parameter name="spatial_dataset_identifier_namespace" value="{spatial_dataset_identifier_namespace}" title="Unique resource identifier codespace" pattern="^[a-zA-Z0-9\-\.\_]+\$/>
<Parameter name="resourceLanguage" value="{resourceLanguage}" title="Resource language" pattern="^[a-zA-Z\-\_]+\$/>
<Parameter name="topicCategory" value="{topicCategory}" title="Topic category" pattern="^[a-zA-Z0-9\-\.\_]+\$/>
<Parameter name="keywordValue" value="{keywordValue}" title="Keyword value" pattern="^[a-zA-Z0-9\-\.\_]+\$/>
<Parameter name="geographicBoundingBoxWestBoundLongitude" value="{geographicBoundingBoxWestBoundLongitude}" title="Geographic bounding box (west bound longitude)"/>
<Parameter name="geographicBoundingBoxEastBoundLongitude" value="{geographicBoundingBoxEastBoundLongitude}" title="Geographic bounding box (east bound longitude)"/>
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<Parameter name="geographicBoundingBoxNorthBoundLatitude" value="{geographicBoundingBoxNorthBoundLatitude}" title="Geographic bounding box (north bound latitude)"/>
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<Parameter name="dateOfPublication" value="{dateOfPublication}" title="Date of publication" pattern="^{0-9}{4}-[0-9]{2}-[0-9]{2}T[0-9]{2}:[0-9]{2}:[0-9]{2}(Z|[\+\-][0-9]{2}:[0-9]{2})\$/>
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<Parameter name="lineage" value="{lineage}" title="Lineage"/>
<Parameter name="degree" value="{degree}" title="Degree"/>
<Parameter name="specificationTitle" value="{specificationTitle}" title="Specification title"/>
<Parameter name="specificationDateType" value="{specificationDateType}" title="Specification date type"/>
<Parameter name="specificationDate" value="{specificationDate}" title="Specification date"/>
<Parameter name="limitationsOnPublicAccessOtherConstraints" value="{limitationsOnPublicAccessOtherConstraints}" title="Limitations on public access (other constraints)"/>
<Parameter name="limitationsOnPublicAccessClassification" value="{limitationsOnPublicAccessClassification}" title="Limitations on public access (classification)"/>
<Parameter name="conditionsApplyingToAccessAndUse" value="{conditionsApplyingToAccessAndUse}" title="Conditions applying to access and use"/>
<Parameter name="responsiblePartyOrganisationName" value="{responsiblePartyOrganisationName}" title="Responsible party (organisation name)"/>
<Parameter name="responsiblePartyEmail" value="{responsiblePartyEmail}" title="Responsible party (email)"/>
<Parameter name="responsiblePartyRole" value="{responsiblePartyRole}" title="Responsible party role"/>

```

```

<Parameter name="metadataPointOfContactOrganisationName" value="{metadataPointOfContactOrganisationName}" title="Metadata point of contact
(organisation name)"/>
<Parameter name="metadataPointOfContactEmail" value="{metadataPointOfContactEmail}" title="Metadata point of contact (email)"/>
<Parameter name="metadataDate" value="{metadataDate}" title="Metadata date"/>
<Parameter name="metadataLanguage" value="{metadataLanguage}" title="Metadata language"/>
<Parameter name="resourceTitleDatasetSeries" value="{resourceTitleDatasetSeries}" title="Resource title (dataset series)"/>
<Query role="example" searchTerms="S2" geo:polygon="10,100,20,100,20,110,10,110,10,100" timeStart="2018-07-30T00:00:00Z" timeEnd="2018-
07-29T00:00:00Z" startIndex="1" maxRecords="25" inspire:source="INSPIRE" sortKeys="path,,asc"/>
<Query role="example" inspire_dls:spatial_dataset_identifier_namespace="urn:esa:dias:onda"
inspire_dls:spatial_dataset_identifier_code="s2:11c:fc63ba03-2315-419f-832c-591d1df30e7c"
inspire_dls:crs="http://www.opengis.net/def/crs/EPSG/0/4326" language="eng"/>
<Contact>support@onda-dias.eu</Contact>
<Tags>ONDA DIAS OpenSearch Web services</Tags>
<LongName>
Data set level OpenSearch interface for onda-dias.eu
</LongName>
<Developer>ONDA DIAS</Developer>
<Attribution>ONDA DIAS</Attribution>
<SyndicationRight>open</SyndicationRight>
<AdultContent>>false</AdultContent>
<Language>eng</Language>
<InputEncoding>UTF-8</InputEncoding>
<OutputEncoding>UTF-8</OutputEncoding>
</OpenSearchDescription>

```

2.2.1. Use of the OpenSearch filters - Step 2

2.2.1.1. OpenSearch filters

SearchTerm can contains wildcards like ? or * and can be mixed with other logical operators like AND, OR and NOT.

e.g: Get product by **platformShortName** and **instrumentShortName**

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=platformShortName:S2%20AND%20instrumentShortName:MSI>

2.2.1.2. Search a product by its identifier

Objective: Retrieve metadata for one product according to its product identifier

Protocol: Opensearch

Request:

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=id:fc63ba03-2315-419f-832c-591d1df30e7c>

Response:

```
<feed
xmlns="http://www.w3.org/2005/Atom"
xmlns:os="http://a9.com/-/spec/opensearch/1.1/"
xmlns:dif="http://gcmd.gsfc.nasa.gov/Aboutus/xml/dif/"
xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:inspire="http://onda-dias.eu/ns/opensearch/1.1/"
xmlns:inspire_dls="http://inspire.ec.europa.eu/schemas/inspire_dls/1.0/"
xmlns:inspire_common="http://inspire.ec.europa.eu/schemas/common/1.0"
xmlns:time="http://a9.com/-/opensearch/extensions/time/1.0/"
xmlns:geo="http://a9.com/-/opensearch/extensions/geo/1.0/"
xmlns:ONDA="http://onda-dias.eu/ns/ONDA"
xmlns:georss="http://www.georss.org/georss"
xmlns:atom="http://www.w3.org/2005/Atom"
xmlns:eo="http://a9.com/-/opensearch/extensions/eo/1.0/"
xmlns:gmd="http://www.isotc211.org/2005/gmd"
xmlns:gmi="http://www.isotc211.org/2005/gmi"
xmlns:gml="http://www.opengis.net/gml/3.2"
xmlns:semantic="http://a9.com/-/opensearch/extensions/semantic/1.0/"
xmlns:sru="http://a9.com/-/opensearch/extensions/sru/2.0/"
xmlns:urlencoder="java.net.URLEncoder">
<title>ONDA / INSPIRE Dataset Search Results</title>
<updated>2019-06-25T11:04:09.120+02:00</updated>
<author>
<name>onda-dias.eu</name>
<email>support@onda-dias.eu</email>
<uri>http://onda-dias.eu</uri>
</author>
<link href="http://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=id:fc63ba03-2315-419f-832c-591d1df30e7c" rel="self"
hreflang="eng" type="application/atom+xml"/>
<id>
http://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=id:fc63ba03-2315-419f-832c-591d1df30e7c
</id>
<rights>Copyright (c), ONDA DIAS; all rights reserved</rights>
<link href="http://inspire.ec.europa.eu/featureconcept/EnvironmentalMonitoringProgramme" rel="describedby" type="text/html"/>
<link href="http://catalogue.onda-dias.eu/opensearch/OpenSearch?" rel="describedby" type="application/xml"/>
<link href="http://catalogue.onda-dias.eu/opensearch/OpenSearchDescription" rel="self" type="application/opensearchdescription+xml"/>
```



```

<link href="http://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=id:fc63ba03-2315-419f-832c-591d1df30e7c&startIndex=1"
rel="first"/>
<os:totalResults>1</os:totalResults>
<os:startIndex>1</os:startIndex>
<os:itemsPerPage>25</os:itemsPerPage>
<os:query role="request" inspire:source="INSPIRE" maxRecords="25" startIndex="1" searchTerms="id:fc63ba03-2315-419f-832c-591d1df30e7c"/>
<entry>
<title>
S2B_MSIL1C_20181218T075329_N0207_R135_T36KTU_20181218T094806.SAFE
</title>
<link href="http://catalogue.onda-dias.eu/opensearch/id/fc63ba03-2315-419f-832c-591d1df30e7c" rel="alternate" type="application/x-shapefile"
length="756507440.0"/>
<link href="http://catalogue.onda-dias.eu/opensearch/id/fc63ba03-2315-419f-832c-591d1df30e7c" rel="alternate" type="application/atom+xml"/>
<link href="http://catalogue.onda-dias.eu/opensearch/id/fc63ba03-2315-419f-832c-591d1df30e7c" rel="describedBy" type="text/html"/>
<link href="http://catalogue.onda-dias.eu/opensearch/id/fc63ba03-2315-419f-832c-591d1df30e7c" rel="describedBy" type="application/atom+xml"/>
<category label="ONDA DIAS" term="ONDA DIAS"/>
<id>fc63ba03-2315-419f-832c-591d1df30e7c</id>
<inspire_common:datasetVersion/>
<updated>2019-06-25T11:04:09.120+02:00</updated>
<creationDate>2019-06-21T06:31:25Z</creationDate>
<inspire_common:datasetId>fc63ba03-2315-419f-832c-591d1df30e7c</inspire_common:datasetId>
<inspire_common:dataCenter>[]</inspire_common:dataCenter>
<ONDA:dateOfCreation>2018-12-18T09:48:06Z</ONDA:dateOfCreation>
<ONDA:tileIdentifier>36KTU</ONDA:tileIdentifier>
<ONDA:_text_>
["36KTU", "S2", "PASSED", "MSI", "PASSED", "SAFE", "DESCENDING", "GS2B_20181218T075329_009313_N02.07", "PASSED",
"S2B_MSIL1C_20181218T075329_N0207_R135_T36KTU_20181218T094806.zip", "S2MSI1C", "PASSED", "Multi-Spectral Instrument", "PASSED",
"2017-013A", "OPTICAL", "S2B_MSIL1C_20181218T075329_N0207_R135_T36KTU_20181218T094806.SAFE", "Sentinel-2", "KU36T", "INS-NOBS",
"2B", "LEVEL-1C"]
</ONDA:_text_>
<ONDA:temporalExtentBeginPosition>2018-12-18T07:53:29.024Z</ONDA:temporalExtentBeginPosition>
<ONDA:platformShortName>S2</ONDA:platformShortName>
<ONDA:specificationDate>2013-10-29</ONDA:specificationDate>
<eo:processingDate>2018-12-18T09:48:06Z</eo:processingDate>
<ONDA:geographicBoundingBoxWestBoundLongitude>30.04022707498483</ONDA:geographicBoundingBoxWestBoundLongitude>
<ONDA:sensorQualityFlag>PASSED</ONDA:sensorQualityFlag>
<ONDA:resourceTitle>Sentinel-2 Level-1C (short name: L1C)</ONDA:resourceTitle>
<ONDA:topicCategory>imageryBaseMapsEarthCover</ONDA:topicCategory>
<ONDA:specificationDateType>revision</ONDA:specificationDateType>
<ONDA:resourceLocator>
https://catalogue.onda-dias.eu/dias-catalogue/Products(fc63ba03-2315-419f-832c-591d1df30e7c)/$value
</ONDA:resourceLocator>

```

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<eo:instrumentShortName>MSI</eo:instrumentShortName>
<ONDA:resourceLanguage>eng</ONDA:resourceLanguage>
<ONDA:geographicBoundingBoxNorthBoundLatitude>-23.482318605171184</ONDA:geographicBoundingBoxNorthBoundLatitude>
<ONDA:nodeId>863f8998-8809-36e8-8c31-b1caf53d98f0</ONDA:nodeId>
<ONDA:dataTakeSensingStart>2018-12-18T07:53:29.024Z</ONDA:dataTakeSensingStart>
<ONDA:geometricQualityFlag>PASSED</ONDA:geometricQualityFlag>
<ONDA:temporalExtentEndPosition>2018-12-18T07:53:29.024Z</ONDA:temporalExtentEndPosition>
<ONDA:pseudoPath>
["OPTICAL/LEVEL-1C/2018/12/18", "S2/2B/MSI/LEVEL-1C/S2MSI1C/2018/12/18", "S2/2B/LEVEL-1C/S2MSI1C/2018/12/18", "S2/MSI/LEVEL-
1C/S2MSI1C/2018/12/18", "S2/LEVEL-1C/S2MSI1C/2018/12/18", "2017-013A/MSI/LEVEL-1C/S2MSI1C/2018/12/18", "2017-013A/LEVEL-
1C/S2MSI1C/2018/12/18"]
</ONDA:pseudoPath>
<ONDA:format>SAFE</ONDA:format>
<ONDA:metadataPointOfContactEmail>support@onda-dias.eu</ONDA:metadataPointOfContactEmail>
<ONDA:keywordValue>
opticalEarthObservation Satellite Sentinel-2 S2 MSI L1C
</ONDA:keywordValue>
<eo:orbitDirection>DESCENDING</eo:orbitDirection>
<ONDA:responsiblePartyEmail>support@onda-dias.eu</ONDA:responsiblePartyEmail>
<ONDA:dataTakeIdentifier>GS2B_20181218T075329_009313_N02.07</ONDA:dataTakeIdentifier>
<ONDA:formatCorrectnessFlag>PASSED</ONDA:formatCorrectnessFlag>
<ONDA:metadataLanguage>eng</ONDA:metadataLanguage>
<ONDA:geographicBoundingBoxSouthBoundLatitude>-24.485936576309438</ONDA:geographicBoundingBoxSouthBoundLatitude>
<ONDA:creationDate>2019-06-21T06:31:25Z</ONDA:creationDate>
<ONDA:lineage>Not evaluated</ONDA:lineage>
<ONDA:beginPosition>2018-12-18T07:53:29.024Z</ONDA:beginPosition>
<ONDA:name>
S2B_MSIL1C_20181218T075329_N0207_R135_T36KTU_20181218T094806.zip
</ONDA:name>
<ONDA:responsiblePartyOrganisationName>ONDA DIAS</ONDA:responsiblePartyOrganisationName>
<ONDA:resourceType>dataset</ONDA:resourceType>
<ONDA:conditionsApplyingToAccessAndUse>No conditions apply</ONDA:conditionsApplyingToAccessAndUse>
<ONDA:geographicBoundingBoxEastBoundLongitude>31.100024442559125</ONDA:geographicBoundingBoxEastBoundLongitude>
<eo:productType>S2MSI1C</eo:productType>
<ONDA:radiometricQualityFlag>PASSED</ONDA:radiometricQualityFlag>
<ONDA:processingBaseline>2.07</ONDA:processingBaseline>
<eo:instrumentName>Multi-Spectral Instrument</eo:instrumentName>
<ONDA:specificationTitle>
INSPIRE Metadata Implementing Rules: Technical Guidelines based on EN ISO 19115 and EN ISO 19119 V 1.3
</ONDA:specificationTitle>
<ONDA:endPosition>2018-12-18T07:53:29.024Z</ONDA:endPosition>
<ONDA:relativeOrbitNumber>135</ONDA:relativeOrbitNumber>

```

```

<ONDA:generalQualityFlag>PASSED</ONDA:generalQualityFlag>
<ONDA:degradedMSIDataPercentage>0.0</ONDA:degradedMSIDataPercentage>
<ONDA:id>fc63ba03-2315-419f-832c-591d1df30e7c</ONDA:id>
<ONDA:platformNssdcid>2017-013A</ONDA:platformNssdcid>
<ONDA:sensorType>OPTICAL</ONDA:sensorType>
<ONDA:storage>GAEL_REF_SANITY_S2B_201812</ONDA:storage>
<ONDA:filename>
S2B_MSIL1C_20181218T075329_N0207_R135_T36KTU_20181218T094806.SAFE
</ONDA:filename>
<ONDA:resourceTitleDatasetSeries>Sentinel-2 Level-1C</ONDA:resourceTitleDatasetSeries>
<ONDA:offline>false</ONDA:offline>
<ONDA:size>756507440.0</ONDA:size>
<ONDA:platformName>Sentinel-2</ONDA:platformName>
<ONDA:resourceAbstract>
The Level-1C product is composed of 100x100 km2 tiles (ortho-images in UTM/WGS84 projection). The Level-1C product results from using a Digital Elevation Model (DEM) to project the image in cartographic geometry. Per-pixel radiometric measurements are provided in Top Of Atmosphere (TOA) reflectances along with the parameters to transform them into radiances. Level-1C products are resampled with a constant Ground Sampling Distance (GSD) of 10, 20 and 60 m depending on the native resolution of the different spectral bands. In Level-1C products, pixel coordinates refer to the upper left corner of the pixel. Level-1C products will additionally include Cloud Masks and ECMWF data (total column of ozone, total column of water vapour and mean sea level pressure)
</ONDA:resourceAbstract>
<ONDA:responsiblePartyRole>distributor</ONDA:responsiblePartyRole>
<ONDA:degradedAncillaryDataPercentage>0.0</ONDA:degradedAncillaryDataPercentage>
<ONDA:degree>Not evaluated</ONDA:degree>
<ONDA:metadataPointOfContactOrganisationName>ONDA DIAS</ONDA:metadataPointOfContactOrganisationName>
<ONDA:orderedTileIdentifier>KU36T</ONDA:orderedTileIdentifier>
<ONDA:footprint>
MULTIPOLYGON (((30.8635998474937 -24.4859365763094,30.8787076115528 -24.4264404250009,30.9141691730348 -
24.2785989880554,30.9496326385742 -24.1306848989062,30.9849432910881 -23.9826597406598,31.0199482978143 -
23.8345246727276,31.0553771211483 -23.6865026211188,31.0905473592657 -23.5384023596742,31.1000244425591 -
23.4983016503366,30.0627896482774 -23.4823186051712,30.0402270749848 -24.4727476124369,30.8635998474937 -24.4859365763094)))
</ONDA:footprint>
<ONDA:limitationsOnPublicAccessClassification>unclassified</ONDA:limitationsOnPublicAccessClassification>
<ONDA:sensorOperationalMode>INS-NOBS</ONDA:sensorOperationalMode>
<ONDA:platformSerialIdentifier>2B</ONDA:platformSerialIdentifier>
<eo:processingLevel>LEVEL-1C</eo:processingLevel>
<ONDA:cloudCoverPercentage>0.1057</ONDA:cloudCoverPercentage>
<inspire_dls:spatial_dataset_identifier_code>s2:11c:fc63ba03-2315-419f-832c-591d1df30e7c</inspire_dls:spatial_dataset_identifier_code>
<inspire_dls:spatial_dataset_identifier_namespace>urn:esa:dias:onda</inspire_dls:spatial_dataset_identifier_namespace>
<ONDA:orbitNumber>9313</ONDA:orbitNumber>
<ONDA:limitationsOnPublicAccessOtherConstraints>No limitations</ONDA:limitationsOnPublicAccessOtherConstraints>
<ONDA:_version_>1636930616032231424</ONDA:_version_>

```

```
</entry>
</feed>
```

2.2.1.3. Sample OpenSearch requests

Get Products by **orbitDirection** and **platformName**:

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?orbitDirection=DESCENDING&platformName=Sentinel-3>

Count Products:

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?count>

Other examples:

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=platformName%3ASentinel-2+productType%3AS2MSI1C>

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=id:fc63ba03-2315-419f-832c-591d1df30e7c>

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=-id:16832005-e373-412b-a602-ba08e07b0953>

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?degree=%22Not%20evaluated%22&language=eng>

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=platformName%3ASentinel-2+productType%3AS2MSI1C&sortKeys=asc>

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=-resourceType:dataset>

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=topicCategory:imageryBaseMapsEarthCover>

2.2.1.4. How to get number of records for a requested

Like any other OpenSearch request, it is possible to set the request to return only the number records corresponding to the request. Set the value of the count parameter to 0 (zero) in your request like hereunder:

<https://catalogue.onda-dias.eu/opensearch/OpenSearch?count=0>

Result:

```
<feed
xmlns="http://www.w3.org/2005/Atom"
xmlns:os="http://a9.com/-/spec/opensearch/1.1/"
xmlns:dif="http://gcmd.gsfc.nasa.gov/Aboutus/xml/dif/"
xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:inspire="http://onda-dias.eu/ns/opensearch/1.1/"
xmlns:inspire_dls="http://inspire.ec.europa.eu/schemas/inspire_dls/1.0"
xmlns:inspire_common="http://inspire.ec.europa.eu/schemas/common/1.0"
xmlns:time="http://a9.com/-/opensearch/extensions/time/1.0/"
xmlns:geo="http://a9.com/-/opensearch/extensions/geo/1.0/"
xmlns:ONDA="http://onda-dias.eu/ns/ONDA"
xmlns:georss="http://www.georss.org/georss"
xmlns:atom="http://www.w3.org/2005/Atom"
xmlns:eo="http://a9.com/-/opensearch/extensions/eo/1.0/"
xmlns:gmd="http://www.isotc211.org/2005/gmd"
xmlns:gmi="http://www.isotc211.org/2005/gmi"
xmlns:gml="http://www.opengis.net/gml/3.2"
xmlns:semantic="http://a9.com/-/opensearch/extensions/semantic/1.0/"
xmlns:sru="http://a9.com/-/opensearch/extensions/sru/2.0/"
xmlns:urlencoder="java.net.URLEncoder">
<title>ONDA / INSPIRE Dataset Search Results</title>
<updated>2019-06-25T11:15:37.346+02:00</updated>
<author>
<name>onda-dias.eu</name>
<email>support@onda-dias.eu</email>
<uri>http://onda-dias.eu</uri>
</author>
<link href="http://catalogue.onda-dias.eu/opensearch/api/inspire/2/OpenSearch?count=0" rel="self" hreflang="eng" type="application/atom+xml"/>
<id>
http://catalogue.onda-dias.eu/opensearch/api/inspire/2/OpenSearch?count=0
</id>
<rights>Copyright (c), ONDA DIAS; all rights reserved</rights>
<link href="http://inspire.ec.europa.eu/featureconcept/EnvironmentalMonitoringProgramme" rel="describedby" type="text/html"/>
<link href="http://catalogue.onda-dias.eu/opensearch/api/inspire/2/OpenSearch?" rel="describedby" type="application/xml"/>
<link href="http://catalogue.onda-dias.eu/opensearch/api/inspire/2/OpenSearchDescription" rel="self" type="application/opensearchdescription+xml"/>
```

```
<link href="http://catalogue.onda-dias.eu/opensearch/api/inspire/2/OpenSearch?count=0&startIndex=1" rel="first"/>
<link href="http://catalogue.onda-dias.eu/opensearch/api/inspire/2/OpenSearch?count=0&startIndex=1" rel="next"/>
<link href="http://catalogue.onda-dias.eu/opensearch/api/inspire/2/OpenSearch?count=0&startIndex=1" rel="previous"/>
<os:totalResults>113</os:totalResults>
<os:startIndex>1</os:startIndex>
<os:itemsPerPage>0</os:itemsPerPage>
<os:query role="request" inspire:source="INSPIRE" maxRecords="0" startIndex="1"/>
</feed>
```

2.3. Add OpenSearch to a browser

Adding OpenSearch to your site is incredibly simple, you just have to add a simple tag to your index HTML page and add a simple XML file that it points to.

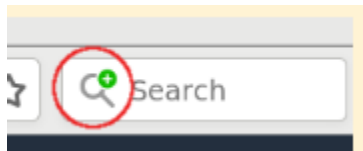
URL: <https://catalogue.onda-dias.eu/opensearch/OpenSearch?searchTerms=%s>

2.3.1. Google Chrome

Go to Chrome → Settings → searchEngines → Add

2.3.2. Mozilla

Click on the searchEngines navBar → Add new



and paste the URL.

2.3.3. How to use it

You can simply perform a search into the search bar

E.g.:

platformName:Sentinel-2 AND productType:S2MSI1C & sortKeys=asc