

dataProducts Discovery Service

- [Description](#)
 - [URL](#)
- [get](#)
 - [Parameters](#)
 - [Response](#)
 - [Success \(HTTP 200\)](#)
 - [Bad Request \(HTTP 400\)](#)
 - [URL Examples](#)
 - [API Proxy](#)
 - [Code Examples](#)
- [How-to article](#)

Description

The API **dataProducts** service returns all data products defined in Oceans 3.0 that meet a filter criteria.

[Data Products](#) are downloadable representations of ONC observational data, provided in formats that can be easily ingested by analytical or visualization software.

The primary purpose of this service is to identify which Data Products and Formats (file extensions) are available for the Locations, Devices, Device Categories or Properties of interest. Use the dataProductCode and extension when requesting a data product via the [dataProductDelivery](#) web service.

URL

```
https://data.oceannetworks.ca/api/dataProducts
```

Method	Description	Example
get	Retrieve a list Data Products codes	method=get

get

The get method retrieves a list of Data Product codes

Parameters

Parameter	Type	Description	Example
Required			
token	string	Il Web Services require a token. Once logged in at https://data.oceannetworks.ca/login , your token can be retrieved or generated at https://data.oceannetworks.ca/Profile . Click on the "Web Services" tab, then click "Generate Token".	token=YOUR_TOKEN_HERE
Optional			
dataProductCode	string	Return all Data Product Extensions matching a specific Data Product Code . • Data Product Code must be valid.	dataProductCode=annotationfile
extension	string	Return all Data Products that have a specific File Extension . • Extension must be valid and match exactly, including case.	extension=csv
dataProductName	string	Return all Data Products where the Data Product Name contains a keyword. • Filter is not case sensitive, treating time, Time and TIME as the same word. • Filter will find partial words. The filter dataProductName=time returns "Time Series Scalar Data", "Time Series Scalar Profile Plot", "Nortek Time Series", "ASL Acoustic Profiler Time Series" and more.	dataProductName=time
locationCode	string	Return all Data Products available for a specific Location . • Location Code must be valid. • Specific Location Codes can be obtained using the locations service.	locationCode=BACAX

deviceCategoryCode	string	Return all Data Products available for devices belonging to a specific Device Category . - Device Category Code must be valid. - Specific Device Category Codes can be obtained using the deviceCategories service.	deviceCategoryCode=ADCP2MHZ
deviceCode	string	Return all Data Products available for a specific Device . - Device Code must be valid. - Specific Device Codes can be obtained from the devices service.	deviceCode=AandOpt0581
propertyCode	string	Return all Data Products available for a specific Property . - Property Code must be valid. - Specific Property Codes can be obtained using the properties service.	propertyCode=air density

Response

Example for request [https://data.oceannetworks.ca/api/dataProducts?method=get&token=\[YOUR_TOKEN_HERE\]&dataProductCode=HSD&extension=png](https://data.oceannetworks.ca/api/dataProducts?method=get&token=[YOUR_TOKEN_HERE]&dataProductCode=HSD&extension=png)

Success (HTTP 200)

Returns a list of data product extensions with values for Data Product Code, Data Product Name, Extension and Help Document URL, ordered alphabetically by Data Product Code

```
[
  {
    "dataProductCode": "HSD",
    "dataProductName": "Hydrophone Spectral Data",
    "dataProductOptions": [
      {
        "allowableRange": null,
        "allowableValues": [
          "All",
          "LF",
          "HF"
        ],
        "documentation": [
          "https://wiki.oceannetworks.ca/display/DP/Hydrophone+Data+Acquisition+and+Diversion+Mode"
        ],
        "option": "dpo_hydrophoneAcquisitionMode",
        "suboptions": null
      },
      {
        "allowableRange": null,
        "allowableValues": [
          "All",
          "H1",
          "H2",
          "H3"
        ],
        "documentation": [
          "https://wiki.oceannetworks.ca/display/DP/Hydrophone+Channel"
        ],
        "option": "dpo_hydrophoneChannel",
        "suboptions": null
      },
      {
        "allowableRange": null,
        "allowableValues": [
          "All",
          "LPF",
          "OD",
          "HPF"
        ],
        "documentation": [
          "https://wiki.oceannetworks.ca/display/DP/Hydrophone+Data+Acquisition+and+Diversion+Mode"
        ],
        "option": "dpo_hydrophoneDataDiversionMode",
        "suboptions": null
      },
      {
        "allowableRange": {
          "lowerBound": "-160",
          "onlyIntegers": false,
```

```

        "unitOfMeasure": null,
        "upperBound": "140"
    },
    "allowableValues": [
        "-1000"
    ],
    "documentation": [
        "https://wiki.oceannetworks.ca/display/DP/Spectrogram+Plot+Options"
    ],
    "option": "dpo_lowerColourLimit",
    "suboptions": null
},
{
    "allowableRange": null,
    "allowableValues": [
        "0",
        "1",
        "2",
        "3",
        "4",
        "5"
    ],
    "documentation": [
        "https://wiki.oceannetworks.ca/display/DP/Spectrogram+Plot+Options"
    ],
    "option": "dpo_spectrogramColourPalette",
    "suboptions": null
},
{
    "allowableRange": null,
    "allowableValues": [
        "Adjacent",
        "Daily",
        "Weekly",
        "None"
    ],
    "documentation": [
        "https://wiki.oceannetworks.ca/display/DP/Spectrogram+Concatenation"
    ],
    "option": "dpo_spectrogramConcatenation",
    "suboptions": null
},
{
    "allowableRange": {
        "lowerBound": "100",
        "onlyIntegers": true,
        "unitOfMeasure": "Hz",
        "upperBound": "500000"
    },
    "allowableValues": [
        "-1",
        "1000",
        "10000"
    ],
    "documentation": [
        "https://wiki.oceannetworks.ca/display/DP/Spectrogram+Plot+Options"
    ],
    "option": "dpo_spectrogramFrequencyUpperLimit",
    "suboptions": null
},
{
    "allowableRange": null,
    "allowableValues": [
        "WAVFLAC",
        "FFT",
        "MIX"
    ],
    "documentation": [
        "https://wiki.oceannetworks.ca/display/DP/Spectrogram+Source"
    ],
    "option": "dpo_spectrogramSource",
    "suboptions": null
},
{
    "allowableRange": {
        "lowerBound": "-160",
        "onlyIntegers": false,
        "unitOfMeasure": null,
        "upperBound": "140"
    }
}

```

```

    },
    "allowableValues": [
      "-1000"
    ],
    "documentation": [
      "https://wiki.oceannetworks.ca/display/DP/Spectrogram+Plot+Options"
    ],
    "option": "dpo_upperColourLimit",
    "suboptions": null
  }
},
"extension": "png",
"hasDeviceData": true,
"hasPropertyData": false,
"helpDocument": "https://wiki.oceannetworks.ca/display/DP/45"
]
}
]

```

Property	Type	Description	Example
dataProductCode	string	Returns the data product code.	"dataProductCode": "HSD"
dataProductName	string	Returns the name of the data product.	"dataProductName": "Hydrophone Spectral Data"
extension	string	Returns the file extension for the data product.	"extension": "png"
hasDeviceData	boolean	Returns whether at least one device and/or sensor with this data product is NEPTUNE searchable	"hasDeviceData": true
hasPropertyData	boolean	Returns whether at least one sensor with this data product is a NEPTUNE-searchable primary sensor	"hasPropertyData": false
helpDocument	string	Returns a Link URL to the Oceans 3.0 Help documentation for the specific data product.	"helpDocument": " https://wiki.oceannetworks.ca/display/DP/45 "
dataProductOptions	array of objects	Array of all the data product options that can be applied to the specific data product	
dataProductOptions.AllowableRange	object	object describing the range of values for the specific data product option	
dataProductOptions.AllowableRange.lowerBound	String	The lower bound for the data product option	"lowerBound": "100"
dataProductOptions.AllowableRange.onlyIntegers	boolean	false if the number can be floating point	"onlyIntegers": true
dataProductOptions.AllowableRange.unitOfMeasure	String	The unit of measure for the data product option	"unitOfMeasure": "Hz"
dataProductOptions.AllowableRange.upperBound	String	The upper bound for the data product option	"upperBound": "500000"
dataProductOptions.allowableValues	Array of strings	The allowable values for the dataproduct option. If there is an allowable range these values are in addition to the range.	"allowableValues": ["All", "LPF", "OD", "HPF"]
dataProductOptions.documentation	Array of strings	List of all the documentation for a data product option	"documentation": [https://wiki.oceannetworks.ca/display/DP/Hydrophone+Data+Acquisition+and+Diversio n+Mode]
dataProductOptions.option	String	name of the data product option	"option": "dpo_hydrophoneDataDiversio nMode"

dataProductOptions.suboptions	Array of DataProductOptions	some data product options have children that become required when you select the parent, for example when you select the "resample" option you must specify the type of resample: avg, minmax, minmaxavg.	<pre> "option": "dpo_resample", "suboptions": [{ "allowableRange": null, "allowableValues": [], "documentation": ["https://wiki.oceannetworks.ca/display/DP/Resampling+(Data+Files)"], "option": "dpo_none", "suboptions": null }], { "allowableRange": null, "allowableValues": ["3600", "600", "86400", "900", "60"], "documentation": ["https://wiki.oceannetworks.ca/display/DP/Resampling+(Data+Files)"], "option": "dpo_average", "suboptions": null }], </pre>
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Bad Request (HTTP 400)

errorCode	errorMessage	Description
127	Invalid parameter value	Occurs when an invalid code is used in the filter. Most filters require an exact match, otherwise this error will occur. The name of the filter parameter is included in the "parameter" property.
129	Invalid parameter name	Occurs when a filter parameter is in the query but is not supported. The name of the filter parameter is included in the "parameter" property.

URL Examples

- Return a list of **All** Data Product Extensions (no filters)

[https://data.oceannetworks.ca/api/dataProducts?method=get&token=\[YOUR_TOKEN_HERE\]](https://data.oceannetworks.ca/api/dataProducts?method=get&token=[YOUR_TOKEN_HERE])

- Return a list of all Data Product Extensions available for **Data Product Code** 'TSSD' (Time Series Scalar Data)

[https://data.oceannetworks.ca/api/dataProducts?method=get&token=\[YOUR_TOKEN_HERE\]&dataProductCode=TSSD](https://data.oceannetworks.ca/api/dataProducts?method=get&token=[YOUR_TOKEN_HERE]&dataProductCode=TSSD)

- Return a list of all Data Products Extensions available for the **Extension** 'pdf'

[https://data.oceannetworks.ca/api/dataProducts?method=get&token=\[YOUR_TOKEN_HERE\]&extension=pdf](https://data.oceannetworks.ca/api/dataProducts?method=get&token=[YOUR_TOKEN_HERE]&extension=pdf)

- Return a list of all Data Products Extensions available for **Data Product Code** 'TSSD' (Time Series Scalar Data) and **Extension** of 'csv'

[https://data.oceannetworks.ca/api/dataProducts?method=get&token=\[YOUR_TOKEN_HERE\]&dataProductCode=TSSD&extension=csv](https://data.oceannetworks.ca/api/dataProducts?method=get&token=[YOUR_TOKEN_HERE]&dataProductCode=TSSD&extension=csv)

- Return a list of all Data Product Extension with a **Data Product Name** containing 'scalar'

[https://data.oceannetworks.ca/api/dataProducts?method=get&token=\[YOUR_TOKEN_HERE\]&dataProductName=scalar](https://data.oceannetworks.ca/api/dataProducts?method=get&token=[YOUR_TOKEN_HERE]&dataProductName=scalar)

- Return a list of all Data Product Extensions available for instruments at the location with **Location Code** 'BACAX'

[https://data.oceannetworks.ca/api/dataProducts?method=get&token=\[YOUR_TOKEN_HERE\]&locationCode=BACAX](https://data.oceannetworks.ca/api/dataProducts?method=get&token=[YOUR_TOKEN_HERE]&locationCode=BACAX)

- Return a list of all Data Products with the **Extension** 'mat' that are available for instruments at the location with **Location Code** 'BACAX'
[https://data.oceannetworks.ca/api/dataProducts?method=get&token=\[YOUR_TOKEN_HERE\]&extension=mat&locationCode=BACAX](https://data.oceannetworks.ca/api/dataProducts?method=get&token=[YOUR_TOKEN_HERE]&extension=mat&locationCode=BACAX)
- Return a list of all Data Product Extensions available for the device with **Device Code** 'NORTEKAQDPRO8398'
[https://data.oceannetworks.ca/api/dataProducts?method=get&token=\[YOUR_TOKEN_HERE\]&deviceCode=NORTEKAQDPRO8398](https://data.oceannetworks.ca/api/dataProducts?method=get&token=[YOUR_TOKEN_HERE]&deviceCode=NORTEKAQDPRO8398)
- Return a list of all Data Product Extensions available for instruments with the **Device Category** 'ADCP2MHZ'
[https://data.oceannetworks.ca/api/dataProducts?method=get&token=\[YOUR_TOKEN_HERE\]&deviceCategoryCode=ADCP2MHZ](https://data.oceannetworks.ca/api/dataProducts?method=get&token=[YOUR_TOKEN_HERE]&deviceCategoryCode=ADCP2MHZ)
- Return a list of all Data Products Extensions available for the **Property Code** 'seawatertemperature'
[https://data.oceannetworks.ca/api/dataProducts?method=get&token=\[YOUR_TOKEN_HERE\]&propertyCode=seawatertemperature](https://data.oceannetworks.ca/api/dataProducts?method=get&token=[YOUR_TOKEN_HERE]&propertyCode=seawatertemperature)

API Proxy

The <https://data.oceannetworks.ca/apiproxy/dataProducts> URL link in the above examples can be used in a browser for sharing or testing purposes; however, it can not be accessed from code. Calls to the apiproxy server are redirected to a login screen to capture your user id. Accessing the apiproxy URL from code will return html in the payload, which may cause errors or unexpected behaviour. In order to use the dataProducts endpoint from code, you must use the <https://data.oceannetworks.ca/api/dataProducts> url along with a valid token.

Code Examples

How-to article

Provide step-by-step guidance for completing a task.



Please report all issues with the web services, documentation, samples and client libraries to the [Oceans 3.0 Help Centre](#)