

deployments Discovery Service

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Description

The **deployments** discovery web service returns all deployments defined in Oceans 3.0 which meet the filter criteria, where a deployment is the installation of a device at a location. The deployments service assists in knowing when and where specific types of data are available.

The primary purpose for the deployments service is to find the dates and locations of deployments and use the dateFrom and dateTo datetimes when requesting a data product using the [dataProductDelivery](#) web service.

URL

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

Method	Description	Example
get	Retrieve a flat list deployments metadata.	method=get

get

The get method retrieves a list of deployments including location code, device code, deployment begin and end dates and spatial information.

Parameters

Parameter	Type	Description	Example
Required			
token	string	All 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			
locationCode	string	Return all Deployments at a specific Location Code . <ul style="list-style-type: none">• Location Code must be valid.• Specific Location Codes can be obtained using the locations service.	locationCode=BACAX
deviceCategoryCode	string	Return all Deployments that have devices belonging to a specific Device Category . <ul style="list-style-type: none">• Device Category Code must be valid.• Specific Device Category Codes can be obtained using the deviceCategories service.	deviceCategoryCode=CTD
deviceCode	string	Return all Deployments of a specific Device . <ul style="list-style-type: none">• Device Code must be valid.• Specific Device Codes can be obtained from the devices service.	deviceCode=AandOpt0581
propertyCode	string	Return all Deployments that have devices with a sensor for a specific Property . <ul style="list-style-type: none">• Property Code must be valid.• Specific Property Codes can be obtained using the properties service.	propertyCode=differentialtemperature

dateFrom	datetime	<p>Return all of the Deployments that have a Deployment Beginning on or after a specific date/time.</p> <p>Accepted DateTime formats:</p> <ul style="list-style-type: none"> • yyyy-MM-dd'T'HH:mm:ss.SSS'Z' (ISO 8601 Extended) • yyyy-MM-dd (ISO 8601 Extended) • PnYnMnDTnHnMnS (ISO 8601 Duration) <p>If not specified, the default value is the beginning of time.</p> <ul style="list-style-type: none"> • DateTime is represented in Coordinated Universal Time (UTC). • ISO 8601 Extended format without a time will be assumed to mean midnight (T00:00:000.000Z). • Queries with both dateFrom and dateTo in the ISO 8601 Duration format will not be accepted. 	<p>dateFrom=2010-07-27T00:00:00.000Z</p> <p>dateFrom=2010-07-27</p> <p>dateFrom=-P1DT1H</p> <ul style="list-style-type: none"> • Previous 1 day and 1 hour, relative to the dateTo. Note the '-' before the P.
dateTo	datetime	<p>Return all of the Deployments that have a Deployment Ending before a specific date/time.</p> <p>Accepted DateTime formats:</p> <ul style="list-style-type: none"> • yyyy-MM-dd'T'HH:mm:ss.SSS'Z' (ISO 8601 Extended) • yyyy-MM-dd (ISO 8601 Extended) • PnYnMnDTnHnMnS (ISO 8601 Duration) <p>If not specified, the default value is the end of time.</p> <ul style="list-style-type: none"> • DateTime is represented in Coordinated Universal Time (UTC). • ISO 8601 Extended format without a time will be assumed to mean midnight (T00:00:000.000Z). • Queries with both dateFrom and dateTo in the ISO 8601 Duration format will not be accepted. 	<p>dateTo=2016-08-01T00:00:00.000Z</p> <p>dateTo=2016-08-01</p> <p>dateTo=PT12H30M</p> <ul style="list-style-type: none"> • Next 12 hours and 30 minutes, relative to the dateFrom.

Response

Example for request: [https://data.oceannetworks.ca/api/deployments?method=get&token=\[YOUR_TOKEN_HERE\]&locationCode=BACAX&deviceCategoryCode=CTD](https://data.oceannetworks.ca/api/deployments?method=get&token=[YOUR_TOKEN_HERE]&locationCode=BACAX&deviceCategoryCode=CTD)

Success (HTTP 200)

Returns a list of locations with values for Location Code, Location Name, Description, Device Data indicator, Property Data indicator, and Data Search Link URL, ordered by Location Code

```
[
{
  "begin": "2014-05-09T15:50:42.000Z",
  "depth": 982,
  "deviceCode": "SBECTD16p6002",
  "deviceCategoryCode": "CTD",
  "end": "2015-09-17T12:59:52.000Z",
  "hasDeviceData": true,
  "heading": null,
  "lat": 48.31658,
  "locationCode": "BACAX",
  "lon": -126.0508,
  "pitch": null,
  "roll": null
},
{
  "begin": "2013-09-10T16:08:33.000Z",
  "depth": 985,
  "deviceCode": "SBECTD16p7031",
  "deviceCategoryCode": "CTD",
  "end": "2014-05-05T18:08:36.000Z",
  "hasDeviceData": true,
  "heading": null,
  "lat": 48.316517,
  "locationCode": "BACAX",
  "lon": -126.05022,
  "pitch": null,
  "roll": null
},
{
  "begin": "2016-06-14T08:58:41.000Z",
  "depth": 982,
  "deviceCode": "SBECTD19p6813",
  "end": null,
  "deviceCategoryCode": "CTD",
  "hasDeviceData": true,
  "heading": null,
  "lat": 48.31658,
  "locationCode": "BACAX",
  "lon": -126.0508,
  "pitch": null,
  "roll": null
}
]
```

Property	Type	Description	Example
locationCode	string	The locationCode for the deployment location.	"locationCode": "BACAX"
deviceCode	string	The deviceCode for a deployed device.	"deviceCode": "SBECTD19p6813"
deviceCategoryCode	String	the deviceCategoryCode for a deployed device.	"deviceCategoryCode": "CTD"
begin	datetime	<p>The beginning datetime of the deployment.</p> <p>Date Time format: <code>yyyy-MM-dd'T'HH:mm:ss.SSS'Z'</code></p> <ul style="list-style-type: none"> DateTime is represented in Coordinated Universal Time (UTC) 	"begin": 2010-07-27T00:00:00.000Z
end	datetime	<p>The ending datetime of the deployment.</p> <ul style="list-style-type: none"> If the deployment is current, the value is null. <p>Date Time format: <code>yyyy-MM-dd'T'HH:mm:ss.SSS'Z'</code></p> <ul style="list-style-type: none"> DateTime is represented in Coordinated Universal Time (UTC) 	"end": 2016-08-01T00:00:00.000Z
hasDeviceData	string	Indicates that data products can be requested using a device category code for the deployment.	"hasDeviceData": "true"
depth	double	The depth of the device deployment.	"depth": 982
lat	double	The latitude of the device deployment.	"lat": 48.31658
lon	double	The longitude of the device deployment.	"lon": -126.0508
heading	double	The heading of the device deployment.	"heading": 244
pitch	double	The pitch of the device deployment.	"pitch": null

roll	double	The pitch of the device deployment.	"roll":null
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Bad Request (HTTP 400)

errorCode	errorMessage	Description
23	Invalid Time Range, Start Time is greater than End Time or start time is not provided	Occurs when the end is before the begin date/time. <ul style="list-style-type: none"> The name of both of the datetime filters are included in the parameter property.
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. <ul style="list-style-type: none"> The name of the filter parameter is included in the parameter property.
128	Missing parameter	Occurs when multiple parameters are needed, but not all are present. Occurs when deploymentBegin is used without deploymentEnd. <ul style="list-style-type: none"> The names of the required filter parameters, separated by /, are included in the parameter property.
129	Invalid parameter name	Occurs when a filter parameter is used, but is not supported.

URL Examples

- Return a list of **All** Deployments (no filters)

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

- Return a list of all Deployments with a **Location Code** of 'BACAX' ('Barkely Canyon Axis (POD1)')

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

- Return a list of all Deployments that have devices with the **Device Category** 'ADCP2MHZ'

[https://data.oceannetworks.ca/api/deployments?method=get&token=\[YOUR_TOKEN_HERE\]&deviceCategoryCode=ADCP2MHZ](https://data.oceannetworks.ca/api/deployments?method=get&token=[YOUR_TOKEN_HERE]&deviceCategoryCode=ADCP2MHZ)

- Return a list of all Deployments with the **Property Code** 'differentialtemperature'

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

- Return a list of all Deployments with the **Device Category** 'CTD' and **Property Code** 'pressure'

[https://data.oceannetworks.ca/api/deployments?method=get&token=\[YOUR_TOKEN_HERE\]&deviceCategoryCode=CTD&propertyCode=pressure](https://data.oceannetworks.ca/api/deployments?method=get&token=[YOUR_TOKEN_HERE]&deviceCategoryCode=CTD&propertyCode=pressure)

- Return a list of all Deployments of a device with the **Device Code** 'NORTEKAQDPRO8398'

[https://data.oceannetworks.ca/api/deployments?method=get&token=\[YOUR_TOKEN_HERE\]&deviceCode=NORTEKAQDPRO8398](https://data.oceannetworks.ca/api/deployments?method=get&token=[YOUR_TOKEN_HERE]&deviceCode=NORTEKAQDPRO8398)

- Return a list of all of the Deployments **Between** 1 July 2010 and 30 June 2012

[https://data.oceannetworks.ca/api/deployments?method=get&token=\[YOUR_TOKEN_HERE\]&dateFrom=2010-07-01T00:00:00.000Z&dateTo=2012-06-30T23:59:59.999Z](https://data.oceannetworks.ca/api/deployments?method=get&token=[YOUR_TOKEN_HERE]&dateFrom=2010-07-01T00:00:00.000Z&dateTo=2012-06-30T23:59:59.999Z)

- Return a list of all Deployments **Between** 1 July 2010 and 30 June 2011 with the sensor **Property Code** 'seawatertemperature'

[https://data.oceannetworks.ca/api/deployments?method=get&token=\[YOUR_TOKEN_HERE\]&dateFrom=2010-07-01T00:00:00.000Z&dateTo=2011-06-30T23:59:59.999Z&propertyCode=seawatertemperature](https://data.oceannetworks.ca/api/deployments?method=get&token=[YOUR_TOKEN_HERE]&dateFrom=2010-07-01T00:00:00.000Z&dateTo=2011-06-30T23:59:59.999Z&propertyCode=seawatertemperature)

API Proxy

The <https://data.oceannetworks.ca/apiproxy/deployments> 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 deployments endpoint from code, you must use the <https://data.oceannetworks.ca/api/deployments> url along with a valid token.

Code Examples

Title	Creator	Modified
Client Libraries	Dany A Cabrera	12-Apr-24
Ouranos Use Case	Allan Rempel	26-Feb-22
Bird Studies Canada Use Case	Allan Rempel	26-Feb-22
Internal Use Case	Ryan Ross	26-Feb-22
Research Use Case	Ryan Ross	26-Feb-22



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