# **OpenAPI**

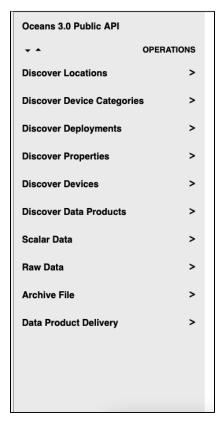
Disclaimer: page under development

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## How to:

## https://data.oceannetworks.ca/OpenAPI

- Uses the Oceans 3.0 API web services described here: Oceans 3.0 API Home
- See below tree structure:
- Each tree item is expandable: displays parameter fields, some default/examples, links to documentation, response field and URL links



### **Discovery Services: Locations**

• Just use the default settings and hit "Try"

locationCode string		
	Return a single Location matching a specific location code.Location Code must be valid and match exactly, including case. Specific Location the service without this parameter to get a list of all locations. Examples: FGPD	Codes can be found by simply r
deviceCategoryCode string		
	Return all Locations that have devices with a specific Device Category Code. DeviceCategoryCodes can be found through the deviceCatego https://wiki.oceannetworks.ca/display/O2A/deviceCategories+Discovery+Service for more information	ry discovery service, see
propertyCode string		
	Return all Locations that have devices with a sensor with a specific Property Code. Specific Property Codes can be obtained using the property https://wiki.oceannetworks.ca/display/O2A/properties+Discovery+Service for more information	rties service, see
dataProductCode string		
	Return all of the Locations that support a specific Data Product Code. DataProductCodes can be found through the dataProduct discovery s /display/O24/dataProducts+Discovery+Service for more information	ervice, see https://wiki.oceannetw
dateFrom date-time		
	Return all of the Locations that have a Deployment Beginning on or after a specific date/time. Dates are formatted yyyy-MM-ddT'HH:mm:ss.	SSS'Z'
dateTo date-time		
	Return all of the Locations that have a Deployment Ending before a specific date/time. Dates are formatted yyyy-MM-ddTTHH:mm:ss.SSSIZ	
locationName string		
	Return all of the Locations where the Location Name contains a keyword.	
devi ceCode string		
	Return all of the Locations where a specific device with that Device Code has been deployed. Devices can be found through the device disch https://wiki.oceannetworks.ca/display/O2A/devices+Discovery+Service for more information	overy service, see
includeChildren boolean		
	Return all Devices that are deployed at a specific Location and sub-tree Locations.	
API Server https://data.oceanne	etworks.cs/api	FILL EXAMPLE CLEAR

- results will be returned as following options:

   JSON formatted response to copy and paste
   CURL URL response to use in script or browser to query programmatically

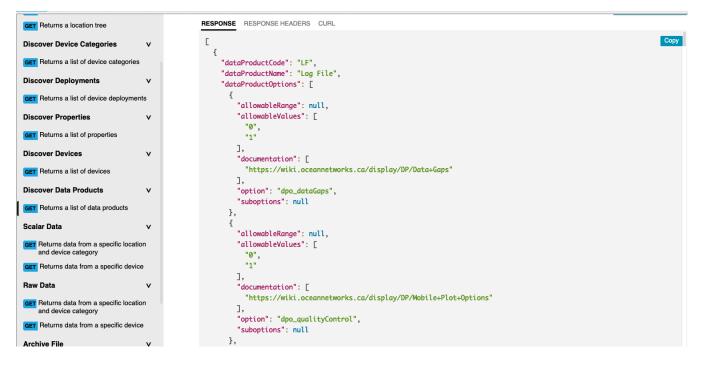
Response Status: OK:200 Fook 779 milliseconds	CLEAR RESP	ONSE
RESPONSE RESPONSE HEADERS	CURL	
"deployments": 47, "locationName": "Folger "depth": 96.515085, "bbox": 48.515085, "maxDepth": 105, "maxLat": 48.814029, "maxLon": -125.274604,	Deep",	Сору
"minDepth": 94, "minLat": 48.813667, "minLon": -125.28195 },		
"description": "Folger "hasDeviceData": "true", "lon": -125.280577, "locationCode": "FGPD", "hasPropertyData": "fals		bserv

## **Discovery Services: Data Products**

- https://data.oceannetworks.ca/OpenAPI get-/dataProducts
  Discover all data products for a CTD (Conductivity-Temperature-Depth) device at Barkley Canyon Upper slope (locationCode: NCBC)

GET Returns a location tree		
der Heldins a location tree	QUERY-STRING PARAMETERS	
Discover Device Categories V	dataProductCode string	
GET Returns a list of device categories		Return all Data Product Extensions matching a specific Data Product Code. Examples: HSD
Discover Deployments V	extension string	
GET Returns a list of device deployments		Return all Data Products that have a specific File Extension. Examples: ong
Discover Properties V	dataProductName	Examples, prig
GET Returns a list of properties	string	Return all Data Products where the Data Product Name contains a keyword.
Discover Devices V	propertyCode string	
GET Returns a list of devices		Return all Data Products available for a specific Property. Specific Property Codes can be obtained using the properties service, see https://wiki.coeannetworks.ca/display/O2A/properties+Discovery+Service for more information
Discover Data Products V	locationCode	NCBC
GET Returns a list of data products		Return all Data Products available for a specific Location. Location Code must be valid and match exactly, including case. Specific Location
Scalar Data v		Codes can be found by simply running the service without this parameter to get a list of all locations.
GET Returns data from a specific location	deviceCategoryCode string	СТФ
and device category		Return all Data Products available for devices belonging to a specific Device Category. DeviceCategoryCodes can be found through the deviceCategory discovery service, see https://wiki.oceannetworks.ca/display/O2A/deviceCategories+Discovery+Service for more information
	devi ceCode string	
Raw Data V		Return all Data Products available for a specific Device. Specific Device Codes can be obtained using the Devices service, see
GET Returns data from a specific location and device category		https://wiki.oceannetworks.ca/display/O2A/devices+Discovery+Service for more information
GET Returns data from a specific device	API Server https://data.oceannel Authentication API Key (token)	
Archive File v		

• The response field can be adjusted (expand/compress with corners; scroll within the response field) to view all data products and their available options.



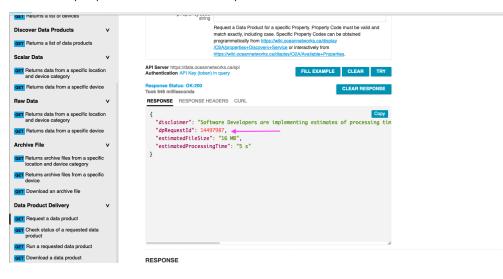
### **Data Delivery Services**

Request data product (LF - logfile; extension: txt) from CTD at NCBC

https://data.oceannetworks.ca/OpenAPI#get-/dataProductDelivery-request

GET Heturns a list or devices	
GET Returns a list of devices	REQUEST + FILTER DPO + DISPLAY ALL DPO
Discover Data Products v	
GET Returns a list of data products	QUERY-STRING PARAMETERS
	* dataProductCode string
Scalar Data V	Request a Data Product for a specific Data Product Code. DataProductCodes can
GET Returns data from a specific location and device category	be found through the dataProduct discovery service, see https://wiki.coeannetworks.ca/display/O2A/dataProducts+Discovery+Service for
GET Returns data from a specific device	more information. Examples: TSSD
Raw Data V	* extension string
GET Returns data from a specific location and device category	Request a Data Product for a specific File Format Extension. Extensions available for specific Data Product Codes can be obtained programmatically from https://wki.oceamentwick.ca.dkigate/orx/shateProduct=Docearve-Sarvice or
GET Returns data from a specific device	Interactively from https://wiki.cocennetworks.ca/display/ Interactively from https://wiki.cocennetworks.ca/display /C/24/Available-balle-balle-Products
Archive File V	Examples: csv
GET Returns archive files from a specific location and device category	* dateFrom 2023-05-281700:00:00.000 Pattern: *d(4)-ld(2)-ld(2)Tu(2):d(2)Tu(2):d(2). d(3)Z\$
GET Returns archive files from a specific device	Return files that have a timestamp on or after a specific data-time. Dates are formatide yyyy-MM-dd T1Hirtmmss.SSS72 Examples: 2019.11-123100.000.0002
GET Download an archive file	* dateTo string 2023-05-28T00:00:10.000 Pattern: *d(4)-d(2)-d(2)-td(2)-td(2).d(2).d(2).
Data Product Delivery v	Return files that have a timestamp before a specific date/time. Dates are formatted yyyy-MM-ddT'HH:mm:ss.SSS/2*
GET Request a data product	Examples: 2019-11-24T00:00:00.000Z
GET Check status of a requested data product	locationCode string NCBC
GET Run a requested data product	Request a Data Product from a specific Location. Location Code must be valid and match exactly, including case. Specific Location Codes can be obtained
GET Download a data product	programmatically from https://wiki.oceannetworks.ca/display /02A/locations+Discovery+Service.or Interactively from

- Once all required parameters are filled in (\* indicated) data product options can be filtered (see arrow)
- ٠ The return field indicates the approx. time for the request to run and the file size to be expected from this data request
- The dpRequestId is utilized in the next step •



#### Run data product request(LF - logfile; extension: txt) from CTD at NCBC

- https://data.oceannetworks.ca/OpenAPI#get-/dataProductDelivery-run
  The page prefills the dpRequestId from your previous step.
- You can re-run any requests multiple times by filling in the appropriate dpRequestId.
- ٠ Notes:
  - ° the dpRunId is utilized in next step
  - ° the status indicates the process state: queued, completed (hit Try to update status)
  - ° fileCount: indicates how many files to be downloaded

GET Returns a list of properties		DATA PRODUCT DELIVERY	API Key (token)
Discover Devices	v	L	
GET Returns a list of devices		Run a requested data product	
Discover Data Products	v	GET /dataProductDelivery-run	
GET Returns a list of data products		The run method runs the data product created by a call to the request method. Pressing the try button again after the run has started will return the runs status.	
Scalar Data	v	REQUEST	
GET Returns data from a specific location and device category	n	QUERY-STRING PARAMETERS	
GET Returns data from a specific device	•	* dpRequestId integer 14497987	
Raw Data	v	A dpRequestid returned from the request service. This field will be auto populated when you press try in the request s	ervice
GET Returns data from a specific location and device category	n	API Server https://data.coeannetworks.cs/api Authentication API Key (token) in query FILL EXAMPLE	CLEAR TRY
GET Returns data from a specific device	•	Response Status: Accepted:202 Took 1051 milliseconds	CLEAR RESPONSE
Archive File	v	RESPONSE RESPONSE HEADERS CURL	
GET Returns archive files from a specific location and device category	:	C	Сору
GET Returns archive files from a specific device	•	"dpRunId": 32581245, "queuePosition": 1,	
GET Download an archive file		"fileCount": 0, "status": "queued"	
Data Product Delivery	v	3	
GET Request a data product		1	
GET Check status of a requested data			

#### Download data product

- The page prefills the dpRunId from your previous step.
  The index indicates the file number to download: 1 to the number of result files. If index is string meta, metadata file will be downloaded.
  The data product will be automatically downloaded from your browser. It can take a while for the download to complete be patient.

GET Returns a list of properties			â
Discover Devices	v	DATA PRODUCT DELIVERY []	API Key (token)
GET Returns a list of devices		Download a data product	
Discover Data Products	v	GET /dataProductDelivery-download	
GET Returns a list of data products		The download method downloads a file for the specified data product run request. The file to download is specified by index, with the first valid inde of files generated by the request. If the data product delivery process has not completed you can periodically press the try button to get current sta	
Scalar Data	v	REQUEST	
GET Returns data from a specific loc and device category	ation	QUERY-STRING PARAMETERS	
GET Returns data from a specific de	vice	dpRunId 32581245	
Raw Data	v	The dpRunId returned from the run service. This field will be auto populated when you press try in the r	un service
GET Returns data from a specific loc and device category	ation	* index string 1	
GET Returns data from a specific de	vice	The index of the file to be downloaded, valid values are 1 to the number of result files. If the index is gn response code of 204 is returned, indicating no file at that index. If index is string meta, metadata file w	
Archive File	v	API Server https://data.oceannetworks.ca/api Authentication API Kay (token) in query	TILL EXAMPLE CLEAR TRY
GET Returns archive files from a spe location and device category	cific	Response Status: OK:200 Took 96 milliseconds	CLEAR RESPONSE
GET Returns archive files from a spe device	cific	RESPONSE RESPONSE HEADERS CURL	
GET Download an archive file			
Data Product Delivery	v	<b>RESPONSE</b> 200	
GET Request a data product		Downloads the file determined by the index query parameter	
GET Check status of a requested da	ta	EXAMPLE SCHEMA	application/ison

## How to get from Oceans3.0 Plotting utility to the scalar data

See this video clip for some guidance:https://drive.google.com/drive/folders/1S7-jFsQv3shwDvi9zZ5YdL2clWtYYwlS?usp=drive\_link