

dataProductDelivery Service

- Description
 - URL
- request
 - Parameters
 - Determining Search Type (Valid combinations)
 - Response
 - Success for files from Archive (HTTP 200)
 - Success for generated data products (HTTP 200)
 - Bad Request (HTTP 400)
 - Examples
- status
 - Parameters
 - Response
 - Success (HTTP 200)
 - Bad Request (HTTP 400)
 - Example
- run
 - Parameters
 - Response
 - Success (HTTP 200)
 - Accepted (HTTP 202)
 - Unauthorized (HTTP 401)
 - Bad Request (HTTP 400)
 - Example
- download
 - Parameters
 - Response
 - Success
 - Bad Request (HTTP 400)
 - Response Codes
 - Examples
 - Code Examples

Description

The API **dataProductDelivery** service provides the ability to request, run and download Data Products for the following:

1. Locations & Device Categories
2. Locations, Device Categories & Properties
3. Locations & Properties
4. Devices
5. Devices & Properties

Downloading a data product is done with a three-step process:

1. Request a data product creation task using the **request** method

Validates request parameters, creates a new request definition and provides performance estimates

- Use filters to supply the Who, What, Where, When and How of the data product request
 - Who: Token
 - What: Device Category and/or Property
 - Where: Location or Device
 - When: dateFrom and dateTo date/time
 - How: Data Product, extension and Data Product Options

2. Run the data product request using the **run** method

Starts the data product generation process by adding the request to the Task Queue

3. Download the data product using the **download** method

Attempts to download a file at an index. If the file at that index is not ready for download at the time of the download request, the service returns information about the status of the process. The client application must continue to request the download until the file is ready, or an error is encountered.

You can optionally check the status of a data product request (even an already finished one) with the **status** method.

URL

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

| Method | Description | Example |
|--------------------------|--|-----------------|
| request | Create a request for a data product from a filter criteria parameters. | method=request |
| status | Retrieve the processing status of a request. | method=status |
| run | Run a data product created by the request method. | method=run |
| download | Download one of the data product result files by index number. | method=download |

request

The request method creates a search and returns information regarding the number of files, file sized, compressed file sized, and estimated download times as well as a request id that can be used to generate the data product using the run method.

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 |
| dataProductCode | string | Request a Data Product for a specific Data Product Code . <ul style="list-style-type: none"> Data Product Code must be valid and match exactly, including casem Specific Data Product Codes can be obtained programmatically from the dataProducts service or interactively from the Available Data Products page. | dataProductCode=TSSD |
| extension | string | Request a Data Product for a specific File Format Extension . <ul style="list-style-type: none"> Extension must be valid and match exactly, including case. Extensions available for specific Data Product Codes can be obtained programmatically from the dataProducts service or interactively from the Available Data Products page. | extension=csv |
| dateFrom | datetime | Request a Data Product starting at a specific date/time. Accepted DateTime formats: <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) <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. | dateFrom=2016-07-25T00:00:00.000Z dateFrom=2010-07-27 dateFrom=-P1DT1H <ul style="list-style-type: none"> Previous 1 day and 1 hour, relative to the dateTo. Note the '-' before the P. |
| dateTo | datetime | Request a Data Product ending at a specific date/time. Accepted DateTime formats: <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) <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. | dateTo=2016-07-29T00:00:00.000Z dateTo=2016-08-01 dateTo=PT12H30M <ul style="list-style-type: none"> Next 12 hours and 30 minutes, relative to the dateFrom. |
| Conditionally Required | | | |

| | | | |
|----------------------|--------|--|---|
| locationCode | string | Request a Data Product from a specific Location . <ul style="list-style-type: none"> Location Code must be valid and match exactly, including case. Specific Location Codes can be obtained programmatically from the locations service or interactively from the Available Locations page. | locationCode=BACAX |
| deviceCategoryCode | string | Request a Data Product from devices belonging to a specific Device Category . <ul style="list-style-type: none"> Device Category Code must be valid and match exactly, including case. Specific Device Category Codes can be obtained programmatically from the deviceCategories service or interactively from the Available Device Categories page. | deviceCategoryCode=ADCP2MHZ |
| deviceCode | string | Request a Data Product from a specific Device . <ul style="list-style-type: none"> Device Code must be valid and match exactly, including case. Specific Device Codes can be obtained programmatically from the devices service or interactively from the Available Devices page. | deviceCode=AandOpt0581 |
| propertyCode | string | Request a Data Product for a specific Property . <ul style="list-style-type: none"> Property Code must be valid and match exactly, including case. Specific Property Codes can be obtained programmatically from the properties service or interactively from the Available Properties page. | property=pressure |
| Data Product Options | string | Each Data Product Extension may have required data product options that determine how to process or package the data. <ul style="list-style-type: none"> Data Product Options include and are not limited to: <ul style="list-style-type: none"> Quality Control Resampling Data Gaps Hydrophone Data Diversion Mode Data Product Options and usage information for each Data Product, can be found on the Data Product Options page. | dpo_qualityControl=1 dpo_resample=average dpo_average=600 |

Determining Search Type (Valid combinations)

| Search Type Equivalent | Parameters Given |
|---------------------------------------|--|
| Instrument by Location (Device Level) | locationCode, deviceCategoryCode |
| Instrument by Location (Sensor Level) | locationCode, deviceCategoryCode, propertyCode |
| Instrument by Category (Device Level) | deviceCode |
| Instrument by Category (Sensor Level) | deviceCode, propertyCode |
| Variable by Location | locationCode, propertyCode |

Response

Detailed information about the number of files, file size, compressed file size, and download time estimates are returned if the files are in archive. If the data product needs to be generated, a dpRequestId, status and filesize and processing time estimates are returned.

Success for files from Archive (HTTP 200)

```
{ "compressedFileSize":12563408, "downloadTimes":{ "10Mbps":7.076623, "50Mbps":1.4153247, "150Mbps":0.47177488 }, "dpRequestId":1852695, "fileSize":70766230, "numFiles":4 }
```

| Property | Type | Description | Example |
|--------------------|---------|---|-------------------------------|
| dpRequestId | integer | Returns a numerical request id to be passed into the "run" method (SearchHdrId) | "dpRequestId":1852695 |
| numFiles | integer | Returns the number of files that meet the criteria of the search | "numFiles":4 |
| fileSize | Long | The sum of all file sizes (in bytes) | "fileSize":70766230 |
| compressedFileSize | Long | The sum of all file size (in bytes) after compression | "compressedFileSize":12563408 |

| | | | |
|---------------|------------------|--|---|
| downloadTimes | String: Float | A set of three common download speeds and the time (in seconds) it would take to download the files for each speed | "downloadTimes":{"10Mbps":7.076623,"50Mbps":1.4153247,"150Mbps":0.47177488} |
|---------------|------------------|--|---|

Success for generated data products (HTTP 200)

```
{
  "disclaimer": "Software Engineering is implementing estimates of processing times and file sizes for data requests. These are extremely rough to begin with, but bear with us. We expect these estimates will gradually improve.",
  "dpRequestId": 1908432,
  "estimatedFileSize": 11940760,
  "estimatedProcessingTime": 21
}
```

| Property | Type | Description | Example |
|-------------------------|---------|---|--|
| dpRequestId | integer | Returns a numerical request id to be passed into the "run" method (SearchHdrid) | "dpRequestId":1908432 |
| estimatedFileSize | string | The estimated file size (in bytes) | "estimatedFileSize":"11940760" or "estimatedFileSize":"no estimated file size available." |
| estimatedProcessingTime | string | The estimated time (in seconds) it will take to process the data product | "estimatedProcessingTime":"21" or "estimatedProcessingTime":"No processing time estimates found for this type of data." |
| disclaimer | string | A statement saying that these estimates are rough | "disclaimer":"Software Engineering is implementing estimates of processing times and file sizes for data requests. These are extremely rough to begin with, but bear with us. We expect these estimates will gradually improve." |

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 dateTo is before the dateFrom date/time. <ul style="list-style-type: none"> The name of both of the datetime filters will be included in the "parameter" property |
| 25 | Invalid Time Range, Start Time is in the future. | Occurs when the end is before the begin date/time. <ul style="list-style-type: none"> The names of both of the datetime filters are included in the parameter property. |
| 33 | No data found for data search with given parameters | Occurs when there is no data available for given parameters |
| 33 | No site devices found for this device in the given time range. | Occurs when there is no site device available for devices obtained from parameters in the given time range |
| 71 | Supplied deviceCategoryCode does not have corresponding dataProductCode and extension. | Occurs when deviceCategoryCode does not have corresponding dataProductCode and extension <ul style="list-style-type: none"> dataProducts service can be used to get the list of valid dataProductCodes and extensions available for the given deviceCategoryCode |
| 71 | Supplied deviceCode does not have corresponding dataProductCode and extension. | Occurs when deviceCode does not have corresponding dataProductCode and extension <ul style="list-style-type: none"> dataProducts service can be used to get the list of valid dataProductCodes and extensions available for the given deviceCode |

| | | |
|-----|--|---|
| 71 | Supplied propertyCode does not have corresponding dataProductCode and extension. | Occurs when propertyCode does not have corresponding dataProductCode and extension <ul style="list-style-type: none"> • dataProducts service can be used to get the list of valid dataProductCodes and extensions available for the given propertyCode |
| 71 | This Data Product has Restricted Data for the requested time period. Latest data available:[<DATE OF LATEST DATA HERE>].For further information, please contact oncdata@lists.uvic.ca | Occurs when the data in the requested time period has restricted access |
| 127 | Supplied property does not have corresponding dataProductCode and extension | Occurs when propertyCode does not have corresponding dataProductCode and extension <ul style="list-style-type: none"> • dataProducts service can be used to get the list of valid dataProductCodes and extensions available for the given propertyCode |
| 127 | Supplied deviceCategoryCode does not have corresponding dataProductCode and extension | Occurs when deviceCategoryCode does not have corresponding dataProductCode and extension <ul style="list-style-type: none"> • dataProducts service can be used to get the list of valid dataProductCodes and extensions available for the given deviceCategoryCode |
| 127 | End parameter value must be greater than begin parameter value | Occurs when dateTo date equals or is less than dateFrom date |
| 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 dateFrom is used without dateTo or vice versa. <ul style="list-style-type: none"> • The names of the required filter parameters, separated by /, are included in the parameter property. |
| 128 | Requested type can not be determined | Occurs when the one of the 5 possible parameter combinations is not specified. <ul style="list-style-type: none"> • A list of the valid parameter combinations are listed in the parameter. "possible parameter combinations are: locationCode, deviceCategoryCode; locationCode, deviceCategoryCode, propertyCode; locationCode, propertyCode; deviceCode; deviceCode, propertyCode" |
| 129 | Invalid parameter name | Occurs when an unsupported filter parameter is used. <ul style="list-style-type: none"> • The name of the filter parameter will be included in the "parameter" property |
| 39 | dataProductCode and extension not a valid dataProductFormat | Occurs when combination of dataProductCode and extension is not a valid dataProductFormat |

Examples

- Request a 'Log File' data product in 'txt' format, using **Data Product Code** 'LF' and **Extension** 'txt' for **Device Category Code** 'ADCP2MHZ' at the **Location Code** 'BACAX', **Between** 25-28 July 2016.

[https://data.oceannetworks.ca/api/dataProductDelivery?method=request&token=\[YOUR_TOKEN_HERE\]&locationCode=BACAX&deviceCategoryCode=ADCP2MHZ&dataProductCode=LF&extension=txt&dateFrom=2016-07-25T00:00:00.000Z&dateTo=2016-07-29T00:00:00.000Z](https://data.oceannetworks.ca/api/dataProductDelivery?method=request&token=[YOUR_TOKEN_HERE]&locationCode=BACAX&deviceCategoryCode=ADCP2MHZ&dataProductCode=LF&extension=txt&dateFrom=2016-07-25T00:00:00.000Z&dateTo=2016-07-29T00:00:00.000Z)

- Request a 'Time Series Scalar Data' data product in 'csv' format, using **Data Product Code** 'TSSD' and **Extension** 'csv' for **Property Code** 'salinity' at 'Barkley Canyon Axis (Pod 1) location using **Location Code** 'BACAX', **Between** 1-12 July 2017.

[https://data.oceannetworks.ca/api/dataProductDelivery?method=request&token=\[YOUR_TOKEN_HERE\]&locationCode=BACAX&propertyCode=salinity&dataProductCode=TSSD&extension=csv&dateFrom=2017-01-01T00:00:00.000Z&dateTo=2017-01-13T00:00:00.000Z&dpo_qualityControl=1&dpo_resample=none&dpo_dataGaps=0](https://data.oceannetworks.ca/api/dataProductDelivery?method=request&token=[YOUR_TOKEN_HERE]&locationCode=BACAX&propertyCode=salinity&dataProductCode=TSSD&extension=csv&dateFrom=2017-01-01T00:00:00.000Z&dateTo=2017-01-13T00:00:00.000Z&dpo_qualityControl=1&dpo_resample=none&dpo_dataGaps=0)

status

The status method returns data about the status of the request.

Parameters

| Parameter | Type | Description | Example |
|-----------------|---------|---|-----------------------|
| Required | | | |
| token | string | All Web Services require a token. This can be generated at https://data.oceannetworks.ca/Profile . Click on the "Web Services" tab and click "Generate Token" | token=YOUR_TOKEN_HERE |
| dpRequestId | integer | A dpRequestId returned from the request method. (SearchHdrid) | dpRequestId=1852695 |

Response

Success (HTTP 200)

```
{
  "cartId": null,
  "cartStatus": 0,
  "description": "",
  "fixed_dates": false,
  "modifyBy": 49860,
  "modifyDate": "2018-02-02T19:22:19.555Z",
  "name": "",
  "newSearches": [
    {
      "dataProductFormat": {
        "archiveFileTypeId": 12,
        "dataProductFormatId": 2,
        "dataProductFormatName": null,
        "dataProductId": 1,
        "extension": {
          "archiveFileExtensionId": 3,
          "description": "CSV file",
          "extension": "csv",
          "mimeType": "text/plain"
        },
        "mode": null,
        "modifyBy": 2685,
        "modifyDate": "2009-11-12T10:54:08.000Z"
      },
      "dateCreated": "2018-02-02T19:22:19.558Z",
      "dateFrom": "2017-01-01T00:00:00.000Z",
      "dateTo": "2017-01-13T00:00:00.000Z",
      "deviceCategoryName": "CTD",
      "deviceId": null,
      "deviceName": null,
      "formatId": null,
      "interopId": null,
      "interopIdentifier": null,
      "interopSubIdentifier": null,
      "itemId": null,
      "maxDepth": null,
      "maxLat": null,
      "maxLon": null,
      "minDepth": null,
      "minLat": null,
      "minLon": null,
      "notification": null,
      "parameter": "{\\\"35\\\":\\\"0\\\",\\\"38\\\":\\\"1\\\",\\\"40\\\":[\\\"41\\\",\\\"0\\\"]}",
      "productId": null,
    }
  ]
}
```

```

"results": null,
"searchDtIs": [
  {
    "deviceId": 23842,
    "deviceName": "Sea-Bird SeaCAT SBE19plus V2 6813",
    "sensorId": 16702,
    "sensorName": "Practical Salinity"
  }
],
"searchId": 5968038,
"searchNodeId": 15,
"searchTypeId": 8,
"sensorId": null,
"sensorName": "Salinity",
"siteDeviceId": null,
"slow": false,
"subsamplePeriod": null,
"subsampleType": null,
"taskHistoryId": 18553457,
"taskStatus": "Completed",
"venusSearchParameter": {
  "dataFormatId": 0,
  "extraParameters": "{\\"35\\":\\"0\\",\\"38\\":\\"1\\",\\"40\\":[\\"41\\",\\"0\\"]}",
  "locationId": 0,
  "regionId": 0,
  "siteId": 0,
  "studyAreaId": 0,
  "waterPropertyId": 0
}
},
"runningSearches": {
},
"searchHdrId": 2609760,
"searchHdrStatus": "COMPLETED",
"searchSourceId": 5
}

```

| Property | Type | Description | Example |
|-----------------|---------|--|--|
| Property | Type | Description | Example |
| cartId | string | Deprecated. The ID of the cart/search header. Can be null. | "cartId": null |
| cartStatus | integer | The status of the cart/search header as a number. What those numbers correspond to are below: <ul style="list-style-type: none"> 0: Closed 1: Open | "cartStatus": 1 |
| description | string | A description of the search header. Can be empty string. | "description": "test" |
| fixed_dates | boolean | Whether this search's dates are fixed through the delivery API. | "fixed_dates": false |
| modifyBy | integer | The ID of the DMAS user who last modified the search header. | "modifyBy": 19372 |
| modifyDate | string | The date of the last time the search header was modified. This is in the form of a string in ISO8601 (extended) format, yyyy-MM-dd'T'HH:mm:ss.SSS'Z'. | "modifyDate": "2017-05-09T21:43:29.000Z" |
| name | string | The name of the search header. Can be empty string. | "name": {} |
| searchHdrId | integer | The ID of the status results/search header. | "searchHdrId": 2007714 |
| searchHdrStatus | string | The status of the search header. | "searchHdrStatus": "OPEN" |

| | | | |
|------------------------------------|---------|--|---|
| searchSourceId | integer | The search source as a number. What those numbers correspond to are below: <ul style="list-style-type: none"> • 1: Venus page • 2: DMAS page • 3: Web service call • 4: Multimedia search • 5: Delivery API | "searchSourceId": 3 |
| runningSearches | object | Supposedly a map that correlates numbers to currently running searches. Stays empty in practice. | "runningSearches": {} |
| newSearches | list | A list of new searches for that cart/search header. | |
| • newSearches.dateCreated | string | The date the search was created. This is in the form of a string in ISO8601 (extended) format, yyyy-MM-dd'THH:mm:ss.SSSZ'. | "dateCreated": "2017-05-09T21:43:29.000Z" |
| • newSearches.dateFrom | string | The date of the start of the search range. This is in the form of a string in ISO8601 (extended) format, yyyy-MM-dd'THH:mm:ss.SSSZ'. | "dateFrom": "2011-09-10T21:33:39.000Z" |
| • newSearches.dateTo | string | The date of the end of the search range. This is in the form of a string in ISO8601 (extended) format, yyyy-MM-dd'THH:mm:ss.SSSZ'. | "dateTo": "2017-01-13T00:00:00.000Z" |
| • newSearches.deviceCategoryId | string | The name of the search's device category. | "deviceCategoryId": "BPR" |
| • newSearches.deviceId | integer | The ID of the search's device. | "deviceId": 10701 |
| • newSearches.deviceName | string | The name of the search's device. | "deviceName": "NRCan Bottom Pressure Recorder 06" |
| • newSearches.formatId | integer | Supposedly the search's data product format ID. Null in practice. May be completely replaced by newSearches.dataProductFormat in the future. | "formatId": null |
| • newSearches.interopId | integer | The ID of the Interop search associated with this search (if any). Can be null. | "interopId": 650 |
| • newSearches.interopIdentifier | string | The identifier of the Interop search associated with this search (if any). Can be null. | "interopIdentifier": "linep" |
| • newSearches.interopSubIdentifier | string | The sub-identifier of the Interop search associated with this search (if any). Can be null. | "interopSubIdentifier": "AMON" |
| • newSearches.itemId | string | Supposedly a unique ID generated by the UI that corresponds to the search line of this search. Can be null. | "itemId": null |
| • newSearches.maxDepth | double | The maximum depth of this search. Can be null. | "maxDepth": null |
| • newSearches.maxLat | double | The maximum latitude of this search. Can be null. | "maxLat": null |
| • newSearches.maxLon | double | The maximum longitude of this search. Can be null. | "maxLon": null |
| • newSearches.minDepth | double | The minimum depth of this search. Can be null. | "minDepth": null |
| • newSearches.minLat | double | The minimum latitude of this search. Can be null. | "minLat": null |
| • newSearches.minLon | double | The minimum longitude of this search. Can be null. | "minLon": null |
| • newSearches.notification | string | A notification associated with this search. Can be null. | "notification": null |

| | | | |
|---|---------|---|---|
| <ul style="list-style-type: none"> newSearches.parameter | string | Additional parameters and their values for the search as coded numbers in a stringified object. These correspond to parameters like "dpo_resample". | "parameter": "{\\"35\\":\\"1\\",\\"38\\":\\"1\\",\\"40\\":[\\"39\\",\\"3600\\"]}" |
| <ul style="list-style-type: none"> newSearches.productId | integer | The product ID of the search. Null in practice. | "productId": null |
| <ul style="list-style-type: none"> newSearches.results | object | A search results summary for the search. Can be null. | "results": null |
| <ul style="list-style-type: none"> newSearches.searchId | integer | The ID of the search. | "searchId": 4433200 |
| <ul style="list-style-type: none"> newSearches.searchNodeId | integer | The ID of the search node associated with the search. | "searchNodeId": 15 |
| <ul style="list-style-type: none"> newSearches.searchTypeId | integer | The search type as a number. What those numbers correspond to are below: <ul style="list-style-type: none"> 0: Venus 1: General 5: Station/location 7: Web service 8: Primary sensor | "searchTypeId": 1 |
| <ul style="list-style-type: none"> newSearches.sensorId | integer | The ID of the search's sensor. | "sensorId": 9061 |
| <ul style="list-style-type: none"> newSearches.sensorName | string | The name of the search's sensor. | "sensorName": "Housing Temperature" |
| <ul style="list-style-type: none"> newSearches.siteDeviceId | integer | The ID of the siteDevice associated with the search. | "siteDeviceId": 1194492 |
| <ul style="list-style-type: none"> newSearches.slow | boolean | Whether this search is slow. Set to false in practice. | "slow": false |
| <ul style="list-style-type: none"> newSearches.subsamplePeriod | integer | The subsampling period in seconds. Analogous to part of the "Processing" section of Data Product Options in Data Search. | "subsamplePeriod": 3600 |
| <ul style="list-style-type: none"> newSearches.subsampleType | integer | The type of subsampling the search uses as a number. What those numbers correspond to are below: <ul style="list-style-type: none"> 1: Average 2: Decimated 3: Min/Max | "subsampleType": 1 |
| <ul style="list-style-type: none"> newSearches.taskHistoryId | integer | The ID of the task history associated with the search. Can be null, especially when the search has not been started or queued yet. | "taskHistoryId": 18553457 |
| <ul style="list-style-type: none"> newSearches.taskStatus | string | The status of the task history associated with the search. Can be null, especially when the search has not been started or queued yet. | "taskStatus": "Completed" |
| <ul style="list-style-type: none"> newSearches.dataProductFormat | object | The data product format of the search. | |
| <ul style="list-style-type: none"> newSearches.dataProductFormat.archiveFileTypeId | integer | The ID of the archive file type of the data product format. | "archiveFileTypeId": 43 |
| <ul style="list-style-type: none"> newSearches.dataProductFormat.dataProductFormatId | integer | The ID of the data product format. | "dataProductFormatId": 145 |
| <ul style="list-style-type: none"> newSearches.dataProductFormat.dataProductFormatName | string | The name of the data product format. Can be null. | "dataProductFormatName": null |

| | | | |
|--|---------|---|---|
| <ul style="list-style-type: none"> newSearches.dataProductFormat.dataProductId | integer | The ID of the data product associated with that data product format. | "dataProductId": 114 |
| <ul style="list-style-type: none"> newSearches.dataProductFormat.mode | string | The file mode of the data product format. Can be null. | "mode": "-ODV" |
| <ul style="list-style-type: none"> newSearches.dataProductFormat.modifyBy | integer | The ID of the DMAS user who last modified the data product format. | "modifyBy": 29942 |
| <ul style="list-style-type: none"> newSearches.dataProductFormat.modifyDate | string | The date of the last time the data product format was modified. This is in the form of a string in ISO8601 (extended) format, yyyy-MM-dd'T'HH:mm:ss.SSS'Z'. | "modifyDate": "2015-04-01T16:36:24.000Z" |
| <ul style="list-style-type: none"> newSearches.dataProductFormat.extension | object | More details about the extension of the data product format. | |
| <ul style="list-style-type: none"> newSearches.dataProductFormat.extension.archiveFileExtensionId | integer | The ID of the extension. | "archiveFileExtensionId": 33 |
| <ul style="list-style-type: none"> newSearches.dataProductFormat.extension.description | string | A description of the extension. | "description": "RUV file" |
| <ul style="list-style-type: none"> newSearches.dataProductFormat.extension.extension | string | The extension itself (without the .). | "extension": "ruv" |
| <ul style="list-style-type: none"> newSearches.dataProductFormat.extension.mimeType | string | The MIME type of the file format corresponding to that extension. | "mimeType": "application/octet-stream" |
| <ul style="list-style-type: none"> newSearches.searchDtIs | list | A list of sets of details for this search. Can be null. | |
| <ul style="list-style-type: none"> newSearches.searchDtIs.deviceId | integer | The device ID for this set of search details. | "deviceId": 23842 |
| <ul style="list-style-type: none"> newSearches.searchDtIs.deviceName | string | The device name for this set of search details. | "deviceName": "Sea-Bird SeaCAT SBE19plus V2 6813" |
| <ul style="list-style-type: none"> newSearches.searchDtIs.sensorId | integer | The sensor ID for this set of search details. | "sensorId": 16702 |
| <ul style="list-style-type: none"> newSearches.searchDtIs.sensorName | string | The sensor name for this set of search details. | "sensorName": "Practical Salinity" |
| <ul style="list-style-type: none"> newSearches.venusSearchParameter | object | The Venus search parameter of the search. Not all details may be filled in well. | |
| <ul style="list-style-type: none"> newSearches.venusSearchParameter.dataFormatId | integer | The data format ID of the Venus search parameter. | "dataFormatId": 0 |

| | | | |
|--|---------|---|---|
| <ul style="list-style-type: none"> newSearches.venusSearchParameter.extraParameters | string | Additional parameters and their values for the Venus search as coded numbers in a stringified object. These correspond to parameters like "dpo_resample". | "extraParameters": "{\\"35\\":\\"1\\",\\"38\\":\\"1\\",\\"40\\":[\\"39\\",\\"3600\\"]}" |
| <ul style="list-style-type: none"> newSearches.venusSearchParameter.locationId | integer | The location ID of the Venus search parameter. | "locationId": 0 |
| <ul style="list-style-type: none"> newSearches.venusSearchParameter.regionId | integer | The region ID of the Venus search parameter. | "regionId": 0 |
| <ul style="list-style-type: none"> newSearches.venusSearchParameter.siteId | integer | The site ID of the Venus search parameter. | "siteId": 1000730 |
| <ul style="list-style-type: none"> newSearches.venusSearchParameter.studyAreaId | integer | The study area ID of the Venus search parameter. | "studyAreaId": 0 |
| <ul style="list-style-type: none"> newSearches.venusSearchParameter.waterPropertyId | integer | The water property ID of the Venus search parameter. | "waterPropertyId": 0 |

Bad Request (HTTP 400)

| errorCode | errorMessage | Description |
|-----------|---------------------------|--|
| 127 | Invalid parameter value | Occurs when an invalid code is used in the query. <ul style="list-style-type: none"> The name of the filter parameter will be included in the "parameter" property |
| 127 | Invalid search header ID. | Occurs when an invalid Request ID is used in the dpRequestId parameters. |
| 128 | Missing parameter | Occurs when multiple parameters are needed, but not all are present. <ul style="list-style-type: none"> The names of the required filter parameters will be included in the "parameter" property separated by / |
| 129 | Invalid parameter name | Occurs when a filter parameter is in the query but is not supported. <ul style="list-style-type: none"> The name of the filter parameter will be included in the "parameter" property |

Example

https://data.oceannetworks.ca/api/dataProductDelivery?method=status&token=YOUR_TOKEN_HERE&dpRequestId=2007707

run

The run method runs the data product created by a call to the request method.

Parameters

| Parameter | Type | Description | Example |
|-----------------|---------|---|-----------------------|
| Required | | | |
| token | string | All Web Services require a token. Once logged in at http://data.oceannetworks.ca/login , your token can be retrieved or generated at http://data.oceannetworks.ca/Profile . Click on the "Web Services" tab, then click "Generate Token". | token=YOUR_TOKEN_HERE |
| dpRequestId | integer | A dpRequestId returned from the request method. | dpRequestId=1852695 |

Response

Success (HTTP 200)

HTTP status code 200 is returned when all of the runs in the data product delivery request have completed running.

```
[
  {
    "dpRunId": 4521400,
    "filecount": 5
    "status": "complete"
  }
]
```

The payload contains a list of runs, each containing the following properties:

| Property | Type | Description | Example |
|-----------|---------|--|-------------------------|
| dpRunId | integer | A Run Id that can be used to download the data product when processing is complete. | "dpRunId":4521400 |
| fileCount | integer | The number of files available for download. | "fileCount":5 |
| status | string | The current status of the data product request. Valid values are ("cancelled", "queued", "error", "running" and "complete"). | "status": "complete" |

Accepted (HTTP 202)

HTTP status code 202 is returned if all of the runs in the data product delivery request have not completed running.

```
[
  {
    "dpRunId": 4521400,
    "filecount": 5
    "status": "data product running"
  }
]
```

The payload contains a list of runs, each run can contain the following properties

| Property | Type | Description | Example |
|-----------|---------|--|-------------------------|
| dpRunId | integer | A Run Id that can be used to download the data product when processing is complete. | "dpRunId":4521400 |
| fileCount | integer | The number of files available for download. | "fileCount":5 |
| status | string | The current status of the data product request. Valid values are ("cancelled", "queued", "error", "running" and "complete"). | "status": "complete" |

Unauthorized (HTTP 401)

```
{
  "errors": [
    {
      "errorCode": 127,
      "errorMessage": "Invalid parameter value",
      "parameter": "token"
    }
  ]
}
```

| errorCode | errorMessage | Description |
|-----------|-------------------------|--|
| 127 | Invalid parameter value | Occurs when an invalid token is used. |
| 128 | Missing parameter | Occurs when the token parameter is not included in the request |

Bad Request (HTTP 400)

```
{
  "errors": [
    {
      "errorCode": 129,
      "errorMessage": "Invalid parameter name",
      "parameter": "RequestId"
    },
    {
      "errorCode": 128,
      "errorMessage": "Missing parameter",
      "parameter": "dpRequestId"
    }
  ]
}
```

| errorCode | errorMessage | Description |
|-----------|-------------------------------|--|
| 127 | Invalid parameter value | Occurs when an invalid code is used in the query. <ul style="list-style-type: none"> The name of the filter parameter will be included in the "parameter" property |
| 127 | Invalid search header ID | Occurs when an invalid Request ID is used in the dpRequestId parameters. |
| 127 | Search header has already run | Occurs when the same run request is made. |
| 128 | Missing parameter | Occurs when multiple parameters are needed, but not all are present. Occurs when begin is used without end. <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 an unsupported filter parameter is used. <ul style="list-style-type: none"> The name of the filter parameter will be included in the "parameter" property |

Example

[https://data.oceannetworks.ca/api/dataProductDelivery?method=run&token=\[YOUR_TOKEN_HERE\]&dpRequestId=\[YOUR_REQUEST_ID_HERE\]](https://data.oceannetworks.ca/api/dataProductDelivery?method=run&token=[YOUR_TOKEN_HERE]&dpRequestId=[YOUR_REQUEST_ID_HERE])

download

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 index being 1 and the last being the total number of files generated by the request.

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 |
| dpRunId | integer | The dpRunId returned from the run method. | dpRunId=5968038 |

| | | | |
|-------|------------------|--|-----------------------|
| index | integer / string | The index of the file to be downloaded, valid values are 1 to the number of result files. If the index is greater than the number of result files a response code of 204 is returned, indicating no file at that index. If index is string meta , metadata file will be downloaded | index=2 index=meta |
|-------|------------------|--|-----------------------|

Response

Success

HTTP status code 200 is returned in the HTTP header and the requested file is downloaded.

Bad Request (HTTP 400)

| errorCode | errorMessage | Description |
|-----------|--|--|
| 127 | Invalid parameter value | Occurs when an invalid code is used in the query. <ul style="list-style-type: none"> The name of the filter parameter will be included in the "parameter" property |
| 127 | Index must be greater than 0 | Occurs when index value is less than or equal to zero |
| 127 | Metadata file not valid for data product | Occurs when data product does not have metadata file |
| 127 | Invalid data product run ID | Occurs when invalid dpRunId is used in the query. |
| 128 | Missing parameter | Occurs when multiple parameters are needed, but not all are present. <ul style="list-style-type: none"> The names of the required filter parameters will be included in the "parameter" property separated by / |
| 129 | Invalid parameter name | Occurs when a filter parameter is in the query but is not supported. <ul style="list-style-type: none"> The name of the filter parameter will be included in the "parameter" property |

Response Codes

| Response Code | Description |
|-----------------------------|--|
| 200 - Ok | The file is included in the payload. |
| 202 - Accepted | The data product and index are valid but the data product is still being processed. This status can be used to poll for data product completion. The payload includes the comment as displayed in the GUI. |
| 204 - No Content | There is no result file for the data product at the index specified. This can be used to stop looping through result files when the actual number of result files isn't known. |
| 400 - Bad Request | Missing required parameters. <ul style="list-style-type: none"> dpRunId is not a number. index is neither a positive number nor "meta". dpRunId is not a valid data product run Id. The data product selected by dpRunId was run by a different user. Index is "meta", but the data product does not include metadata |
| 401 - Unauthorized | Token is invalid. |
| 404 - Not Found | Index number is greater than the number of files. |
| 410 - Gone | The result file selected by dpRunId and index is not in expected location and may have been removed during FTP clean up. This can also occur if there is a lag between the time that the data product generation is complete and when the file appears on the FTP server. |
| 500 - Internal Server Error | This is an unhandled exception and should not occur. All 500 errors should be immediately reported and a JIRA ticket created at http://jira.neptune.uvic.ca/servicedesk/customer/portal/9/create/43 . |

Examples

The following is an example of the return for a data product that is still being processed, note that the response code in this case is 202.

[https://data.oceannetworks.ca/api/dataProductDelivery?method=download&token=\[YOUR_TOKEN_HERE\]&dpRunId=\[YOUR_RUN_ID_HERE\]&index=\[YOUR_INDEX_#_HERE\]](https://data.oceannetworks.ca/api/dataProductDelivery?method=download&token=[YOUR_TOKEN_HERE]&dpRunId=[YOUR_RUN_ID_HERE]&index=[YOUR_INDEX_#_HERE])

```
{
  "message": "Transferring (BarkleyCanyon_Axis_ADCP2MHz_20160727T000005Z_20160731T235958Z-clean.csv) to the
FTP server",
  "status": "running"
}
```

| Property | Type | Description | Example |
|----------|--------|--|---|
| status | string | The current status of the data product request. Valid values are ("queued", "error" and "running") | "status": "running" |
| message | string | The latest status message reported by the data product process. | "message": "Transferring (BarkleyCanyon_Axis_ADCP2MHz_20160727T000005Z_20160731T235958Z-clean.csv) to the FTP server" |

Code Examples

| Title | Creator | Modified |
|--|------------------------------|-----------|
| Python Client Library | Ryan Ross | 16-Aug-19 |
| MATLAB Client Library | Ryan Ross | 26-Apr-19 |
| Ouranos Use Case | Allan Rempel | 25-Apr-18 |
| Bird Studies Canada Use Case | Allan Rempel | 24-Apr-18 |
| Internal Use Case | Ryan Ross | 24-Apr-18 |
| Request Data Product | Ryan Ross | 23-Apr-18 |



Please report all issues with the web services, documentation, samples and client libraries to the [Oceans 2.0 Help Centre](#)

"dpRunId": 4521400,