MAT file Metadata structure - Scalar
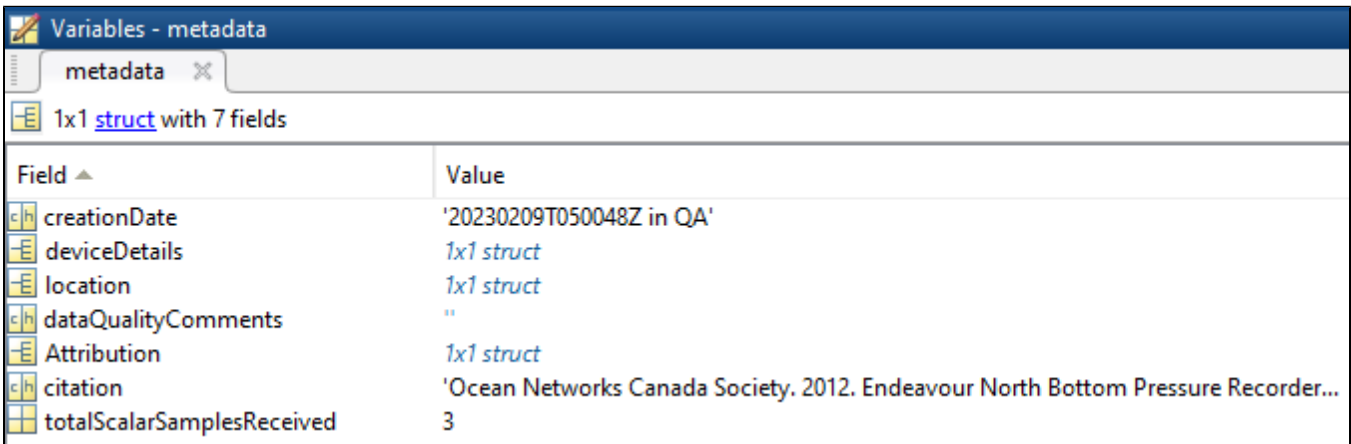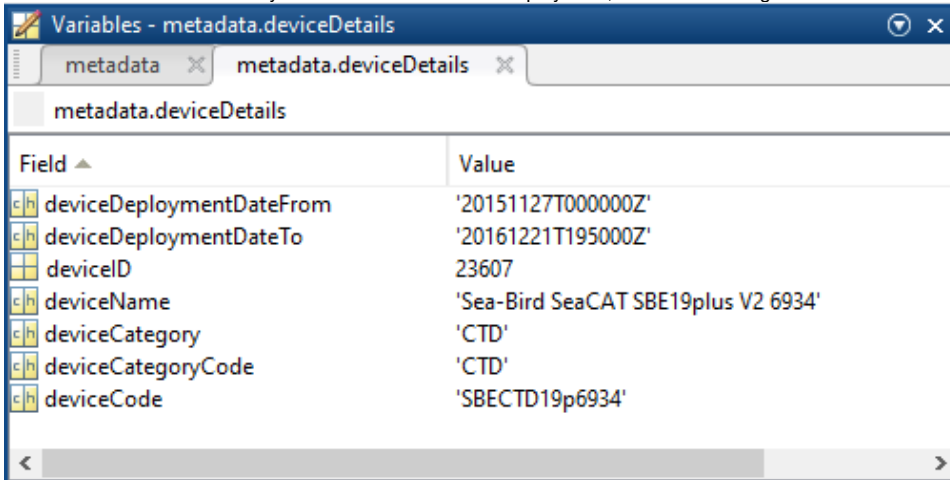
metadata: a structure array (one structure per device) containing the following metadata fields:

- creationDate:Date and time (using ISO8601 format) that the data product was produced. This is a valuable indicator for comparing to other revisions of the same data product.
- deviceDetails: a structure array with a structure for each deployment, with the following fields:

  - deviceDeploymentDateFrom
  - deviceDeploymentDateTo
  - deviceID: A unique identifier to represent the instrument within the ONC observatory.
  - deviceName: A name given to the instrument.
  - deviceCategory: A unique name given to the category of devices, such as 'CTD'
  - deviceCategoryCode: Code representing the device category. Used for accessing webservices, as described here: API / webservice documentation (log in to see this link).
  - deviceCode: A unique string for the instrument which is used to generate instrument search data product file names.

- location: a structure array with a structure for each deployment location, with the following fields:

- stationName: Secondary location name.
  - stationCode: Code representing the station. Used for accessing webservices, as described here: API / webservice documentation (log in to see this link).
  - depth_metres: Obtained at time of deployment. If NaN, the device is mobile and this position is a variable, the data for which is supplied by a sensor in the data struct.
  - lat_degrees: Obtained at time of deployment. If NaN, the device is mobile and this position is a variable, the data for which is supplied by a sensor in the data struct.
  - lon_degrees: Obtained at time of deployment. If NaN, the device is mobile and this position is a variable, the data for which is supplied by a sensor in the data struct.
  - heading_degrees: Obtained at time of deployment. If NaN, the device is mobile and this position is a variable, the data for which is supplied by a sensor in the data struct.
  - pitch_degrees: Obtained at time of deployment. If NaN, the device is mobile and this position is a variable, the data for which is supplied by a sensor in the data struct.
  - roll_degrees: Obtained at time of deployment. If NaN, the device is mobile and this position is a variable, the data for which is supplied by a sensor in the data struct.

- dataQualityComments: In some cases, there are particular quality-related issues that are mentioned here. This is distinct from QAQC information contained in the data structure.
- Attribution: A structure array with information on any contributors, ordered by importance and date. If an organization has more than one role it will be collated. If there are gaps in the date ranges, they are filled in with the default Ocean Networks Canada attribution (seen in example below). If the "Citation Required?" field is set to "No" on the Network Console then the citation will not appear. Here are the fields:

- acknowledgement: usually formatted as "<organizationName> (<organizationRole>)", except for when there are no attributions and the default is used (as shown above). This text is used to attribute plots when there are contributors other than ONC.
  - startDate: datenum format
  - endDate: datenum format
  - organizationName
  - organizationRole: comma separated list of roles
  - roleComment: primarily for internal use, usually used to reference relevant parts of the data agreement (may not appear)
- citation: a char array containing the DOI citation text as it appears on the Dataset Landing Page. The citation text is formatted as follows: <Author(s) in alphabetical order>. <Publication Year>. <Title, consisting of Location Name (from searchTreeNodeName or siteName in ONC database) Deployed <Deployment Date (sitedevicedatefrom in ONC database)>. <Repository>. <Persistent Identifier, which is either a DOI URL or the queryPID (search_dtlid in ONC database)>. Accessed Date <query creation date (search.datecreated in ONC database)>
- totalScalarSamplesReceived: The number of time stamps that have any valid data on any sensor (at each time stamp). Only defined for metaData (1).totalScalarSamplesReceived, as this total is a summary of all device deployments in the data product.