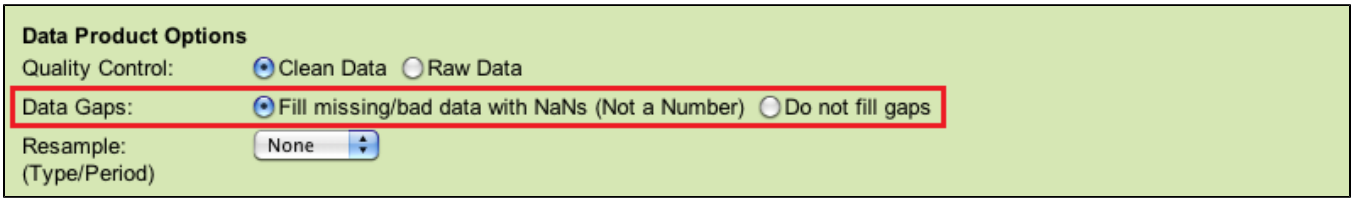
Data Gaps

For time series data only:



Fill missing/bad data with NaNs (Not Number)

This option will, as it says, fill in data gaps with 'NaN' values in the data products. For CSV files, the text 'NaN' is inserted, while MAT files have a built-in type of the same name. Data gaps occur when the time difference between subsequent readings is greater than 1.9 times the sample period (otherwise known as the data rating). The NaNs are placed one sample period after the last reading before the data gaps. Gaps are only filled between readings.

This option will also keep any existing NaNs in the data. These are most often caused by the clean data option being selected, or by real NaNs being report, or when a sensor in a multi-sensor data product has no data. Available metadata can elaborate on the QAQC test that was applied (this information is available via Oceans 3.0 and in MAT files).

This is the default option.

Oceans 3.0 API filter: dpo_dataGaps=1

Do not fill gaps

This option will not take action to fill in data gaps.

This option will cause action to be taken to *remove all NaNs in the data*. The main implication of this is if the clean option had been selected, data that failed quality control tests will be removed entirely. However, there is an exception to this: for multi-sensor time series scalar data, if one sensor at a given time stamp has valid data, the entire row/time stamp cannot be removed, so the remaining sensors will be left as NaNs. For clarification, see the following example, note that QAQC flags of 1s are good data, 4s are failures and 9s are missing data:

sample time	sensor 1	sensor 1 flag	sensor 2	sensor 2 flag	Comment
12:00:00	42	1	42	1	Good row.
12:00:01	NaN	4	NaN	9	Two bad values; one QAQC failure, one data gap. If the **do not fill gaps** is selected, this entire row will be removed.
12:00:02	NaN	4	44	1	One good value, can't remove row.

File-name mode field

'NaN' is added to the file name when the data gaps are filled with NaNs.

Oceans 3.0 API filter: dpo_dataGaps=0