Quality Flags

All data values in the IDP2014 have a quality flag associated with them. Quality flags are single character codes reflecting the quality of the respective data value.

Documentation of the assessed quality of data values in form of quality flags is important. One of the benefits is that there is no need to remove questionable or suspected data values from datasets. Instead, such values should be kept in the dataset, with the added quality flag informing users of the suspected poor quality. Many data analysis and visualization software packages, including Ocean Data View, make use quality flags and allow data filtering by quality flag. There are numerous examples in the history of science when data initially removed from datasets because of suspected poor quality later turned out to be correct. Removing data may lead to permanent loss of potentially important information.

The IDP2014 uses the IODE quality flag set that was recently recommended as <u>standard flagging</u> <u>scheme for the exchange of oceanographic and marine meteorological data</u>.

The IODE flagging scheme is simple and only contains the following five flags:

| Value | Flag short name | Definition |
|-------|---|--|
| 1 | Good | Passed documented required QC tests |
| 2 | Not evaluated, not available or unknown | Used for data when no QC test performed or the information on quality is not available |
| 3 | Questionable/suspect | Failed non-critical documented metric or subjective test(s) |
| 4 | Bad | Failed critical documented QC test(s) or as assigned by the data provider |
| 9 | Missing data | Used as place holder when data are missing |