**Title:** [EO PMOS SWG] Improved expression of EO product quality and status information

**Source:** ESA, GIM

**Work item code:**

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**Category:** B (Addition of feature)

**Reason for change:**

Currently OGC10-157r3 allows within the EOP::EarthObservationMetadata element to specify the imageQualityDegradation as a percentage. This quantitative way of expressing EO product quality is however in reality not always possible. In addition, there is a value QUALITYDEGRADED in the EarthObservationMetadata/status code list to signal quality degradation. However this is not at the correct place since QualityDegraded is not a status in the lifecycle of an EO Product like the other entries in this code list. (Obviously, an EO Product can have degraded quality whilst for example being ARCHIVED whereas the existing status element can only be used to express one of the two conditions.) In addition the current status codelist is missing the possibility to distinguish between online and offline archives.

**Summary of change:**

1/ Allow a qualitative way of describing EO product quality degradation by introducing the following additional optional elements:

a/ imageQualityStatus that can take the values DEGRADED or NORMAL (codelist). This optional field must be provided if the product has passed a quality check.

b/ imageQualityDegradationTag(cardinality 0..n) that can contain further textual information concerning the quality degradation. It must be provided if eop:imageQualityStatus value is DEGRADED. Possible values are mission specific and should refer to mission/ground segment dedicated codeSpace. Example of values could be "RADIOMETRY" or "GEOLOCATION".

c/ imageQualityReportURL that contains an href link to an external
detailed quality report file

2/ the QUALITYDEGRADED in the status code list is declared deprecated.

3/ Add an optional statusSubType element that refines the status of a product when the status is set to ARCHIVED. Possible values for this statusSubType element are ON-LINE and OFF-LINE.

Consequences if not approved: Not always possible to document EO Product quality degradation and status in a proper manner.

Clauses affected:

* Section 8.1.1 UML diagram and table

Additional Documents affected: None

Supporting Documentation:

Comments:

Status: Assigned

Assigned To: EO PMOS SWG

Disposition: Referred