**Change Request #:** 214

**Assigned OGC Document #:** 12-038

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**Document Name/Version:** *Filter Encoding 2.0 Encoding Standard / 2.0*

**OGC Project Document:** *09-026r1*

If this is a revision of a previous submission and you have a Change Request Number, then check here: 

- [ ]

Enter the CR number here: 

Enter the Revision Number that you are revising here:  

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**Title:** *Broaden definition of fes:AbstractProjectionClause*

**Source:** *Aviation DWG - Luciad*

**Work item code:**

**Category:** *D (Editorial modification)*

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**Reason for change:**

*The current definition of an AbstractProjectionClause is very narrow, which limits the usefulness of AbstractAdhocQueryExpressionType as an extension point for custom queries.*

**Summary of change:**

*This section in the FE 2.0 document: 6.3.3.1.3 Projection clause*

A projection clause encodes a list of optional resource properties that shall be available in a query response.*
Needs to be generalized so that a projection clause defines how or if a part of a feature needs to be mapped onto the equivalent part of that feature in the response. To make this a bit more understandable, I’d like to give some concrete examples of projection clauses. Note that an ad-hoc query contains a list of such clauses, so they usually act upon feature properties, not the entire feature.

Examples:
-A projection clause can specify an optional property that needs to be available in the response, this is the only supported case right now.
-A projection clause can specify an optional property that needs to be excluded from the response.
-In AIXM5, a projection clause can take the list of all available time slices (these are feature properties), and only include the ones that are relevant for a time period/instant.
-In AIXM5, a projection clause can replace the list of time slices, with a list of snapshot time slices that are valid for a specific time instant.
-A projection clause can be defined that specifies a filter that should be applied to all elements in a many-valued property.

**Consequences if not approved:**
Extensions that need more flexible projection clauses would need to define their own extension of AbstractQueryExpressionType, that may be almost identical to AbstractAdhocQueryExpressionType. Such an extension would deviate further from the ad-hoc query framework that is defined in the standard, which is in general less ideal. (Harder to integrate in existing implementations, harder to get customizations integrated into future versions of the standard.)

**Clauses affected:**
6.3.3.1.3 Projection clause
The first line is the most important one. However, the paragraph about XML-encoded requests refers to fes:AbstractAdhocProjectionClause, which I could not find in the schema.

**Additional Documents affected:**

**Supporting Documentation:**
I’ve attached a draft version of a schema that defines AIXM5 specific projection clauses, that could be defined if this CR is approved. This is mostly for illustration purposes, and it should be clear that this CR is useful independent of AIXM5.

**Comments:**

**Status:**
Assigned
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