

# OGC CSW-ebRIM Extension Package for EO Products - Abstract Test Suite

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Revision History	
Revision 0.1	2008-10-06
Initial draft.	

## Overview

This document is an abstract test suite (ATS): a compendium of test assertions applicable to implementations of the CSW-ebRIM 1.0 Extension Package for Earth Observation Products (OGC 06-131r5). An ATS provides a basis for developing an executable test suite (ETS) to verify that the implementation under test (IUT) conforms to all relevant functional specifications.

The abstract test cases (assertions) are organized into test groups that correspond to sets of capabilities. The following test groups are defined:

### 1. EO Product Extension Package

Two conformance levels are defined:

- *Level 1* – test cases covering all mandatory requirements to be satisfied by a minimally conformant server implementation;
- *Level 2* – test cases addressing desirable, but optional, behaviour requirements.

Note that the use in this document of uppercase to denote elements in XML text has no significance in either Web service requests or responses.

## Limitations

There are some limitations and conditions to the ATS:

- Only the server is tested, not the client;
- The test assertions only apply to the specialist constraints and behaviour defined in OGC 06-131r5 and not to the full CSW-ebRIM specification. In particular, a catalogue implementation must also satisfy all relevant requirements in the following base specifications:
  - OGC Catalogue Services 2.0.2, Clause 10 (OGC 07-006r1, with Corr. 2)
  - OGC Web Services Common Specification 1.0 (OGC 05-008c1)
  - OGC Filter Encoding Implementation Specification 1.1 (OGC 04-095)
  - OASIS ebXML Registry Information Model, Version 3.0
  - OGC Web Registry Service (WRS) – Part 1 ebRIM profile of CSW (OGC 07-110r2).

## Source documents

- [OpenGIS® Web Service Common Implementation Specification](#) (OGC-05-008r1)

- TBD

## Executable test suite

No executable test suite has yet been defined.

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    - 1.1. Conformance Level 1
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## 1. EO Products Extension Package

### Purpose

The `EO Products Extension Package` test group includes assertions covering descriptions of conformance *Level 1* and *Level 2* capabilities.

### 1.1 Conformance Level 1

#### List of Tables

1. Package availability
2. EO Product metadata mapping
3. EO Product classification
4. EO Product additional metadata mapping
5. EO Product metadata grouping
6. EO Product external interface

#### ATC 1. Package availability

**Test case identifier** urn:ogc:cite:ats:csw-ebrim:1.0.0:06-031r5:eo:level-1:packageavailability

**Test purpose (assertion)** The EO Products package is available as a supported extension package and is complete.

**Test method** Verify that a `rim:RegistryPackage` element with `@id = "urn:x-ogc:specification:csw-ebrim:package:EOProducts"` is a member of the 'root' package and contains the additional registry objects defined by the specification.  
Pass if the assertion is satisfied; fail otherwise

**Reference**

1. OGC 07-110r2 Subclause 17.1
2. OGC 06-131r5 Subclause 8.3 (see also Annex C)

**Test type** Basic

#### ATC 2. EO Product acquisition parameters mapping

**Test case identifier** urn:ogc:cite:ats:csw-ebrim:1.0.0:06-031r5:eo:level-1:acquisitionparametersmapping

**Test purpose (assertion)** The queryable metadata of a GML document describing an `EOProduct` (i.e. its representative acquisition parameters) are correctly mapped to the related `ExtrinsicObject` representing the `EOProduct`.

**Test method** Verify that the mappings between the GML document and the `ExtrinsicObject` correspond to those specified in Table 3 of the specification.  
Pass if the mappings are correctly applied; fail otherwise

**Reference**

1. OGC 06-131r5 Subclause 8.2.4

**Test type** Capability

#### ATC 3. EO Product classification

**Test case identifier** urn:ogc:cite:ats:csw-ebrim:1.0.0:06-031r5:eo:level-1:classification

**Test purpose (assertion)** The EOProduct is classified in the EOProduct Types taxonomy.

**Test method** Verify that the EO Product *ExtrinsicObject* is linked to its corresponding *ClassificationNode* through a *Classification* object. Pass if the assertion is satisfied; fail otherwise

**Reference** 1. OGC 06-131r5 Subclause 8.2.5

**Test type** Capability

#### ATC 4. EO Product additional metadata mapping

**Test case identifier** urn:ogc:cite:ats:csw-ebrim:1.0.0:06-031r5:eo:level-1:additionalmetadatamapping

**Test purpose (assertion)** The additional metadata of a GML document describing an EOProduct (i.e. its platform parameters; its product, mask, browse and archiving information; its thematic- and mission-specific metadata) are correctly mapped to ExtrinsicObjects and associated to the EOProduct.

**Test method** Verify that the mappings between the GML document and the ExtrinsicObjects correspond to those specified in Tables 4-11 of the specification. Pass if the assertion is satisfied; fail otherwise

**Reference** 1. OGC 06-131r5 Subclause 8.2.6 and 8.2.8

**Test type** Capability

#### ATC 5. EO Product metadata grouping

**Test case identifier** urn:ogc:cite:ats:csw-ebrim:1.0.0:06-031r5:eo:level-1:metadatagrouping

**Test purpose (assertion)** All the RegistryObjects related to an EOProduct (i.e. all its metadata) are grouped into a RegistryPackage with the property Name set to 'EOProduct'.

**Test method** Verify that a query on the RegistryPackage element will return all the objects that represent a full EO Product. Pass if the assertion is satisfied; fail otherwise

**Reference** 1. OGC 06-131r5 Subclause 8.2.7

**Test type** Capability

#### ATC 6. EO Product external interface

**Test case identifier** urn:ogc:cite:ats:csw-ebrim:1.0.0:06-031r5:eo:level-1:externalinterface

**Test purpose (assertion)** All operations support the embedding of requests and responses in SOAP 1.2.

**Test method** Verify that the IUT accepts requests encoded in SOAP 1.2 and responds correctly. Pass if the assertion is satisfied; fail otherwise

**Reference** 1. OGC 06-131r5 Subclause 9

**Test type** Capability

### 1.2 Conformance Level 2

#### List of Tables

7. Harvest operation

## ATC 7. Harvest operation

<b>Test case identifier</b>	urn:ogc:cite:ats:csw-ebrim:1.0.0:06-031r5:eo:level-2:harvestoperation
<b>Test purpose (assertion)</b>	The harvest operation definition advertises the support for EO Products  Verify that the harvest operation in the IUT Capabilities document includes the following resourceTypes:
<b>Test method</b>	<ul style="list-style-type: none"><li>- eop:EarthObservation,</li><li>- sar:EarthObservation</li><li>- opt:EarthObservation</li><li>- atm:EarthObservation</li></ul> Pass if the assertion is satisfied; fail otherwise
<b>Reference</b>	1. OGC 06-131r5 Subclause 9.2.6.1
<b>Test type</b>	Capability

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