All Fields marked with * are mandatory.

Change Request #:	**264**
Assigned OGC Document #:	**13-001**
Name:	*Martin Desruisseaux
Organization:	*Geomatys
Email:	*martin.desruisseaux@geomatys.fr
Document Name/Version:	*GeoAPI 3.0 Implementation Standard / 3.0
OGC Project Document:	*09-083r3

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 Revsion Number that you are revising here: [   ]

Title:❓	* [GeoAPI 3.0 SWG] Flag the interfaces considered "abstract" according ISO speci
Source:❓	*http://jira.codehaus.org/browse/GEO-200
Work item code:❓	
Category:❓	* [B (Addition of feature) ▲▼]

Reason for change:❓	* OGC and ISO specifications define some abstract types as the basis of concrete types. For example CS_CoordinateSystem is abstract while CS_CartesianCS and CS_EllipsoidalCS are concrete subtypes. Abstract and concrete types map naturally to abstract and concrete classes in programming languages like Java. However (at least in Java), they can not be distinguished in an API defined only by interfaces. While implementations may not need this information to be carried in the interfaces, having this information allow verification tools to perform additional checks. For example the geoapi-conformance module provides numerous validate(â�¦) methods for checking if some invariants hold, but currently has no easy way to check if a given implementation implements a concrete ISO type.

Summary of change:	* GeoAPI interfaces already have a @UML annotation carrying three informations: the OGC/ISO specification, the OGC/ISO type or attribute name and its obligation (mandatory, conditional or optional). The proposal is to add a forth information: an â��isAbstractâ�� boolean which would default to â��falseâ��, and update all GeoAPI interfaces derived from abstract OGC/ISO types in order to set this flag to â��trueâ��. From the users point of view, this is a compatible change.
Consequences if not approved:	Verification tools and test suites would still have no easy way to ensure that a given instance implements a concrete OGC/ISO type. Implementations which need to distinguish the two cases may have to rely on more fragile technics like naming conventions.

Clauses affected:	* Section 7.1
Additional Documents affected:	Java file org.opengis.annotation.UML, and all Java files derived from an abstract OGC/ISO type.
Supporting Documentation:	
Comments:	
Status:	Assigned
Assigned To:	GeoAPI 3.0 SWG
Disposition:	Referred and Posted