

All Fields marked with * are mandatory.

Change Request #:	267
Assigned OGC Document #:	13-004
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: <input type="checkbox"/>	
Enter the CR number here: <input type="text"/>	
Enter the Revision Number that you are revising here: <input type="text"/>	
<hr/>	
Title:	* [GeoAPI 3.0 SWG] Replace uses of java.util.Date by ISO 19108 TM_CalDate and
Source:	* http://jira.codehaus.org/browse/GEO-194
Work item code:	
Category:	* C (Functional modification of feature)
<hr/>	
Reason for change:	* ISO 19115 uses a date object loosely defined in ISO 19103. In an effort to leverage the existing standard Java objects, GeoAPI uses java.util.Date instead of ISO 19103. However this have the following inconvenient: * java.util.Date always has an accuracy of milliseconds. There is no way to differentiate January 1st from January 1st 00:00:00.000 for instance. * java.util.Date and ISO 19103 Date overlap with ISO 19108 (Temporal Schema). * java.util.Date is likely to be superseded by a new time API in JDK8. GeoAPI would gain consistency by using the ISO 19108 TM_CalDate and TM_ClockTime types at every places where a java.util.Date object was

	used. Actually, this need was anticipated at the GeoAPI 3.0.0 release, so all affected methods already have a note in their Javadoc about this potential change.
Summary of change: ⓘ	<p>*</p> <p>All the following methods, which currently return java.util.Date, would need their return type to be changed. All those method contains a Javadoc warning about this anticipated change.</p> <pre> CalendarDate Metadata.getDateStamp(); DateAndTime Requirement.getExpiryDate(); DateAndTime RequestedDate.getRequestedDateOfCollection(); DateAndTime RequestedDate.getLatestAcceptableDate(); DateAndTime Event.getTime(); CalendarDate Citation.getEditionDate(); CalendarDate CitationDate.getDate(); DateAndTime StandardOrderProcess.getPlannedAvailableDateTime(); DateAndTime Usage.getUsageDate(); DateAndTime ProcessStep.getDate(); CalendarDate MaintenanceInformation.getDateOfNextUpdate(); DateAndTime Element.getDates(); CalendarDate Datum.getRealizationEpoch(); DateAndTime TemporalDatum.getOrigin(); </pre>
Consequences if not approved: ⓘ	Developers would continue to use a type unsuitable to many needs. This type may possibly become outdated in future Java releases, and will overlap ISO 19108.
<hr/>	
Clauses affected: ⓘ	<p>*</p> <p>Table 1 in section 8.1.1. Section 8.4</p>
Additional Documents affected: ⓘ	Above-cited Java source files.
Supporting Documentation: ⓘ	
Comments: ⓘ	
Status: ⓘ	Assigned ⌵
Assigned To: ⓘ	GeoAPI 3.0 SWG ⌵
Disposition: ⓘ	Referred and Posted ⌵