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Change Request #:	87
Assigned OGC Document #:	10-112
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Document Name/Version:	*KML / 2.2.0
OGC Project Document:	*07-147r2
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"/>	
Title:	*Refine Granularity of Timestamps
Source:	*kml2.2swg
Work item code:	
Category:	* B (Addition of feature)

Reason for change:

*

The work I am doing with KML would benefit from the ability to timestamp content in increments of less than a second, since the information I wish to represent on the model changes more than once per second.

Since I would benefit greatly from this change, other people and groups probably would, too. There are numerous potential uses of KML content that would be inconvenienced by the inability to differentiate events that occurred during the same second, but not at the same time.

Summary of change:

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Probably the simplest way to accomplish this would be to add a tag type that can be part of a <Timestamp>/<Timespan>, or perhaps a tag that can be part of a <when>/<begin>/<end>, that would provide added granularity in specifying the time of a particular bit of content.

I would propose a maximum granularity of nanoseconds, since I can't imagine anyone needing more granularity than that.

Therefore, I would also propose that the tag be called <nanoseconds>, and contain the number of nanoseconds into the second specified in the <when> tag. Perhaps, along the same lines, there could be <milliseconds> or <microseconds> tags.

Alternatively, the time specification format that goes into a <when> tag could be expanded to allow the optional inclusion of pieces of seconds (perhaps it could be optionally followed by Nnnnnnnnn where nnnnnnnnn is the 9-digit number of nanoseconds).

Consequences if not approved:

It will be impossible, in KML, to differentiate the time of items specifying events that occurred during the same second, but not at the same time. This precludes playing such events back like a movie, or implementing a KML display application capable of playing such events back like a movie, from the KML.

Clauses affected:

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- 15.1.1
- 15.2.1
- 15.2.3
- 15.3.1
- 15.3.3

Additional Documents

affected: 

**Supporting
Documentation:** 

Comments: 

Status: 

Assigned 

Disposition: 

Referred and Posted 