EML - Bug #1605

missing or erroneous SI units in unitDictionary

06/16/2004 09:36 AM - Margaret O'Brien

Status:	In Progress	**Start date:**	06/16/2004
Priority:	Normal	**Due date:**	
Assignee:	Matt Jones	**% Done:**	0%
Category:	eml - general bugs	**Estimated time:**	0.00 hour
Target version:	EML2.2.0	**Spent time:**	0.00 hour
Bugzilla-Id:	1605		

Description

1. The SI-derived unit "steradian" (sr) appears to be missing. it describes a solid angle, and is the 3-dimensional equivalent of "radian". I dont believe it can be described in terms of any other unit.

2. the "waveNumber" unit is more correctly called reciprocalMeter (m-1), and waveNumber is one of the measurements expressed by this unit (ie, waveNumber=the number of wave cycles in 1 meter). Other measurements which are expressed in m-1 include absorbance, scattering and transmittance.

3. the unit "kilogramPerCubicMeter" is named inconsistently. It seems that it should be plural, ie kilogramsPerCubicMeter. This is consistent with other unit names (milligramsPerCubicMeter) and also how it is referenced as a ParentSI attribute.

History

#1 - 06/22/2004 12:53 PM - Matt Jones

Thanks for the comments. I'm not sure that renaming units is a great idea because it strands existing EML documents that use those units. That said, your comments do indicate a need for more consistent naming. I'll target this at EML 2.1.0 and hope we can resolve these issues along with other 'units repository' issues as partially described in bug 1000 and on the eml-dev mailing list archives.

#2 - 09/02/2004 09:38 AM - Matt Jones

Changing QA contact to the list for all current EML bugs so that people can track what is happening.

#3 - 03/27/2013 02:17 PM - Redmine Admin

Original Bugzilla ID was 1605

#4 - 10/14/2014 03:45 PM - Matt Jones

Status update: The unit naming inconsistency described in this bug was not fixed in EML 2.1.1 in order to maintain backwards compatibility. In general, we deemed that the names were not critical because they map to a precise STMML definition, so it is trivial to determine if two units are identical. Therefore, we don't plan on removing units with names that deviate from the naming convention. But there would be no harm in adding new units that are named following the conventions and provide a duplicate unit. There hasn't been a major request for this yet. Nor has there been a major need for additional units as people can define their own units in STMML.