WG13 Issues - CIM Issues #6615

Add CIMDatatype MassPerLength and Force

11/28/2023 09:43 AM - Svein Olsen

Status:	Closed		
Priority:	High		
Target version:			
Author/Contact Info:	Svein Olsen	**Standard(s):**	61970-301
Base Release:	CIM17	**Version:**	
Solution to be Applied To:	CIM18v10	**Clause:**	
Solution Version:	CIM18v10	**Sub-Clause:**	
Solution Applied By:	Chavdar Ivanov	**Paragraph:**	
Completion Date:	02/04/2024	**Table:**	
CIM Keywords:	61970-Domain	**Originally Closed in Version:**	
Breaking Change:	No	**Origination Date:**	
Breaking Change Description:		**Origination ID:**	
CIM Impacted Groups:	WG13	**Originally Assigned To:**	
Requestor:			

Description

The following new Datatype should be added to Grid/Base/Domain/GeneralDatatypes

Class name: <CIMDatatype>MassPerLength
Note: (old) Mass per length. Enables specification of weight without details of the cross-section.
Note (New): Mass per length. It shall be a positive value or zero.
unit:InitalValue: kgPerm

Justification:
MassPerLength is used in specifying the weight of a cable independents of the length. This is needed for catalogue data for cable and wires.
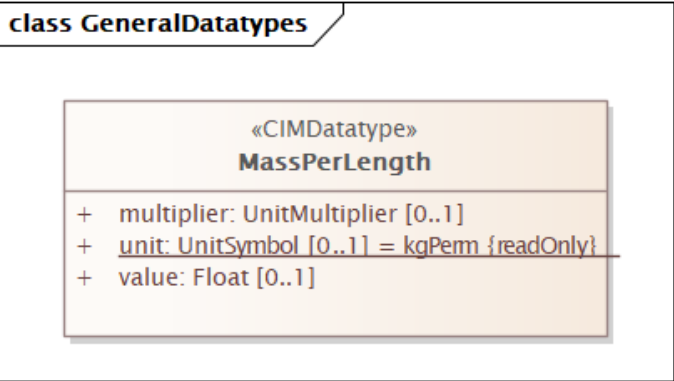
Class name: <CIMDatatype>Force
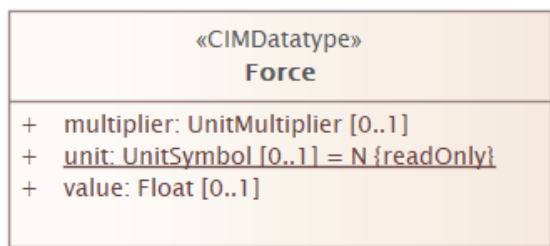Note: Force in newtons (kg·m/s²). It shall be a positive value or zero.
unit:InitalValue: N

Justification:
Force is used in specifying the maximum pull force that a cable can withstand.

class GeneralDatatypes

«CIMDatatype»
Force

+ multiplier: UnitMultiplier [0..1]
+ unit: UnitSymbol [0..1] = N {readOnly}
+ value: Float [0..1]

Proposed Solution

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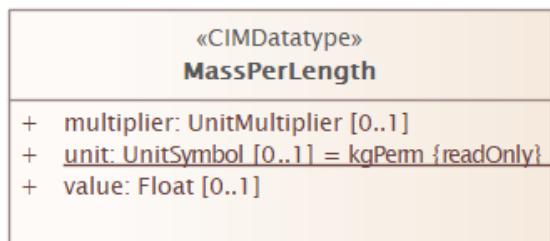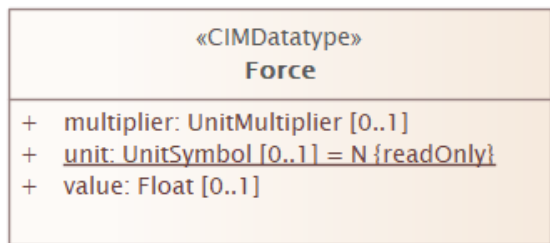Note: Force in newtons (kg·m/s²). It shall be a positive value or zero.
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Decision

29-Nov-2023 - discussed during weekly WG13 modeling call:

Agreed to apply the proposed additions to the CIM with one additional change from what is stated in the Proposed Solution:

For Force:
Note: "Force in newtons (kg·m/s²). It shall be a positive value or zero."

Should be...
Note: "Force in newtons. It shall be a positive value or zero."

Release Notes

- Added <CIMDatatype>MassPerLength, Note: Mass per length. It shall be a positive value or zero.
unit:InitalValue: kgPerm
- Note the multiplier of the datatype is set to none
- added new UnitSymbol kgPerm with the note "Mass per length in kilogram/metres (kg/m). Note: multiplier "k" is included in this unit symbol for compatibility with mass datatype."
- added <CIMDatatype>Force Note: Force in newtons. It shall be a positive value or zero.
unit:InitalValue: N

History

#1 - 11/28/2023 09:44 AM - Svein Olsen

- File clipboard-202311281643-zqlcg.png added

- File clipboard-202311281644-29vsk.png added

- Description updated

- Proposed Solution updated

#2 - 11/29/2023 04:03 PM - Todd Viegut

- Decision updated

#3 - 11/29/2023 04:12 PM - Todd Viegut

- Decision updated

#4 - 12/14/2023 10:43 AM - Becky Iverson

Per CIM Joint Proposal Meeting held on 12/14/2023
Discussion around use of kg vs g, but agreed to stay kg to be consistent with other Mass units of measure. Treatment of Mass Per Unit Length has the same treatment of the units of Mass which use kg.
Agreed to create another issue to address additional description to be added to the 301 regarding the use of multiplier with units of Mass.
Reference Issues:
Issue addressing unit and multiplier exchange - Joint Issue
https://redmine.ucaiug.org/issues/6584
WG13 issue
https://redmine.ucaiug.org/issues/5014

#5 - 02/03/2024 11:22 PM - Chavdar Ivanov

- Release Notes updated

#6 - 02/03/2024 11:31 PM - Chavdar Ivanov

- Release Notes updated

#7 - 02/03/2024 11:32 PM - Chavdar Ivanov

- Status changed from New to Open

- Solution to be Applied To set to CIM18v10

- Solution Version set to CIM18v10

- Solution Applied By set to Chavdar Ivanov

- Completion Date set to 02/04/2024

- Breaking Change set to No

- CIM Keywords 61970-Domain added

#8 - 02/03/2024 11:32 PM - Chavdar Ivanov

- Status changed from Open to In Progress

#9 - 02/03/2024 11:32 PM - Chavdar Ivanov

- Status changed from In Progress to Closed

Files

clipboard-202311281641-qecg3.png	14.5 KB	11/28/2023	Svein Olsen
clipboard-202311281643-zqlcg.png	13.5 KB	11/28/2023	Svein Olsen
clipboard-202311281644-29vsk.png	13.5 KB	11/28/2023	Svein Olsen