WG13 Issues - CIM Issues #6808

Determine if we can have BusbarSection and Junction on a single ConnectivityNode

06/11/2024 11:40 PM - Todd Viegut

Status:	Closed		
Priority:	Normal		
Target version:			
Author/Contact Info:	Todd Viegut	**Standard(s):**	IEC 61970-301
Base Release:	CIM18v12	**Version:**	
Solution to be Applied To:	CIM18v12	**Clause:**	
Solution Version:	CIM18v12	**Sub-Clause:**	
Solution Applied By:	Chavdar Ivanov	**Paragraph:**	
Completion Date:	09/09/2024	**Table:**	
CIM Keywords:		**Originally Closed in Version:**	
Breaking Change:	No	**Origination Date:**	
Breaking Change Description:		**Origination ID:**	
CIM Impacted Groups:	None	**Originally Assigned To:**	
Requestor:			

Description

Section 4.6.4.1 in the 301 jCleanCim template has, for CIM18, a new paragraph on BusbarSection and Junction classes. We've had a request to evaluate the following and update this section accordingly:

1. Can we have 2 BusbarSections on 1 ConnectivityNode?
2. Can we have BusbarSection & Junction on 1 ConnectivityNode.

We need to discuss if this is a UML restriction or should if it should be applied at the Profile level.

Proposed Solution

We recommend that the existing description in the BusbarSection class be changed to read:

"A conductor, or group of conductors, with negligible impedance, that serve to connect other conducting equipment within a single substation. The BusbarSection class is intended to represent physical parts of bus bars no matter how that bus bar is constructed.

Voltage measurements are typically obtained from voltage transformers that are connected to busbar sections. A bus bar section may have many physical terminals but for analysis is modelled with exactly one logical terminal."

For the Junction class update the description to:

"A point where one or more conducting equipments are connected with zero resistance.

The Junction class is intended to provide a place to associate additional information to a connectivity node which connects two or more equipment terminals. Examples include a tee-point or the connection point between two switches.

The Junction class is intended to provide a method to associate additional information, for instance Location, to a ConnectivityNode. Examples include a T-point or the connection point between two switches. Typically, BusbarSection objects and Junction objects are represented by different symbols on diagrams."

Decision

This was reviewed on 11-Jun-2024 at the Joint Hybrid Meeting in Tokyo and the proposed changes approved. This should be applied to CIM18v12

Release Notes

The description of BusbarSection was changed to "A conductor, or group of conductors, with negligible impedance, that serve to connect other conducting equipment within a single substation. The BusbarSection class is intended to represent physical parts of

bus bars no matter how that bus bar is constructed.

Voltage measurements are typically obtained from voltage transformers that are connected to busbar sections. A bus bar section may have many physical terminals but for analysis is modelled with exactly one logical terminal."

The description of Junction was changed to "A point where one or more conducting equipments are connected with zero resistance.

The Junction class is intended to provide a place to associate additional information to a connectivity node which connects two or more equipment terminals. Examples include a tee-point or the connection point between two switches.

The Junction class is intended to provide a method to associate additional information, for instance Location, to a ConnectivityNode. Examples include a T-point or the connection point between two switches. Typically, BusbarSection objects and Junction objects are represented by different symbols on diagrams."

History

#1 - 06/11/2024 11:52 PM - Todd Viegut

- Proposed Solution updated

#2 - 06/11/2024 11:55 PM - Todd Viegut

- Standard(s) changed from IEC 61970-310 to IEC 61970-301

- Decision updated

#3 - 09/04/2024 10:45 AM - Chavdar Ivanov

- Status changed from New to Open

#4 - 09/09/2024 09:51 AM - Chavdar Ivanov

- Status changed from Open to In Progress

- Base Release changed from CIM18 to CIM18v12

- Solution to be Applied To changed from CIM18 to CIM18v12

- Solution Version set to CIM18v12

- Solution Applied By set to Chavdar Ivanov

- Completion Date set to 09/09/2024

- Release Notes updated

#5 - 09/09/2024 09:51 AM - Chavdar Ivanov

- Status changed from In Progress to Closed