

WG13 Issues - CIM Issues #6282

Update of the 302 and 457 inconsistencies and gaps

03/03/2023 11:24 PM - Chavdar Ivanov

Status:	Closed		
Priority:	High		
Target version:			
Author/Contact Info:	Chavdar Ivanov	Standard(s):	61970-302, 61970-457
Base Release:	CIM17	Version:	
Solution to be Applied To:	CIM18v04	Clause:	
Solution Version:	CIM18v04	Sub-Clause:	
Solution Applied By:	Chavdar Ivanov	Paragraph:	
Completion Date:	03/04/2023	Table:	
CIM Keywords:		Originally Closed in Version:	
Breaking Change:	No	Origination Date:	
Breaking Change Description:		Origination ID:	
CIM Impacted Groups:	WG13	Originally Assigned To:	
Requestor:			

Description

Interoperability testing found the following inconsistencies and gaps and proposed these to be fixed asap. The fixes are applied in Ed2 of the standards as they will be voted again due to the copyright changes.

Classes that have attributes as strings, but should be multiple attributes

TurbCIGREHRSGST: pgtqg, pred

TurbIEEEGenericHRSGST: pgtqg, pred

TurbIEEEHydroWCNonlinear: gpm

GovSteamFV4: the block diagram indicates the presence of a deadband in the speed error power reference correction, but no attribute to the purpose is listed

ExclIEEEAC8B: a parameter "Kp" is shown in IEEE specs and missing from attributes list

ExclIEEEEST6B: the signal "VB" in IEEE specs is a voltage dependent function (likely analogous to the "KpVt" of IEEEAC8B). Missing from attributes list.

OverexcLimIEEEOEL2C, OverexcLimIEEEOEL3C, OverexcLimIEEEOEL5C: IEEE specs indicate an input selector. Such selector is not in the attributes list.

Proposed Solution

GovCIGREGT and GovIEEEGT1

change type and description of attribute fx - boolean

add a1 to a5 attributes, temperature and initialTemperature, pmax

For TurbCIGREHRSGST and TurbIEEEGenericHRSGST: add 6 points pgt and qg. Attribute pdtqg is deleted

add 6 pairs (f1-f6, y1-y6) to represent the output of the block over frequency/under frequency control

delete pred attribute

TurbIEEEHydroWCNonLinear

deleted attribute gpm

added 6 pairs of attributes g1-g6, pm1-pm6

ExclIEEEAC8B

added the statement "However this model is not supporting this, hence the model AC8C from IEEE 421.5-2016, 7.17 (ExclIEEEAC8C) should be used."

ExcIEEST6B

added the statement "This model is not supporting Vb signal in a correct way, hence the model ST6C from IEEE 421.5-2016, 8.13 (ExcIEEST6C) should be used."

OverexcLimIEEOEL2C, OverexcLimIEEOEL3C, OverexcLimIEEOEL5C

added attribute inputSignalKind and enumeration OverExcitationLimiterInputKind

GovSteamFV4

Update the diagram of GovSteamFV4 to include parameter Sf1

add the following note to the diagram

"The characteristic using Kf1, Sf1 and alpha has the following details:

$E_{cf} = 1 - \Omega$

If $abs(E_{cf}) < Sf1$:

$C_{pfc} = 0$

else:

$C_{pfc} = Kf1 * (abs(E_{cf}) - Sf1)$

If $C_{pfc} > Lps$

$C_{pfc} = Lps$

If $C_{pfc} < Lpi$

$C_{pfc} = Lpi$

where Kf1 is the slope of the characteristic; Alpha is the angle of the slope used only for diagram explanation and the deadband is Sf1."

added attribute sf1

Release Notes

All changes below are applied in 61970-302 and 61970-457

GovCIGREGT and GovIEEGT1

change type and description of attribute fx - boolean

add a1 to a5 attributes, temperature and initialTemperature, pmax

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add 6 pairs (f1-f6, y1-y6) to represent the output of the block over frequency/under frequency control

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TurbIEEHydroWCNonLinear

deleted attribute gpm

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where Kf1 is the slope of the characteristic; Alpha is the angle of the slope used only for diagram explanation and the deadband is Sf1."

History

#1 - 03/03/2023 11:24 PM - Chavdar Ivanov

- Status changed from New to Open

#2 - 03/04/2023 01:35 AM - Chavdar Ivanov

- Proposed Solution updated

#3 - 03/04/2023 01:54 AM - Chavdar Ivanov

- Proposed Solution updated

#4 - 03/04/2023 02:49 AM - Chavdar Ivanov

- Proposed Solution updated

- Release Notes updated

#5 - 03/04/2023 03:02 AM - Chavdar Ivanov

- Proposed Solution updated

- Release Notes updated

#6 - 03/04/2023 05:21 AM - Chavdar Ivanov

- Status changed from Open to In Progress

#7 - 03/04/2023 05:22 AM - Chavdar Ivanov

- Status changed from In Progress to Closed

#8 - 10/20/2023 10:13 AM - Todd Viegut

- Solution to be Applied To changed from CIM18 to CIM18v04