



European Network of
Transmission System Operators
for Electricity

INTEROPERABILITY TEST "CIM FOR SYSTEM DEVELOPMENT AND OPERATIONS" 2012

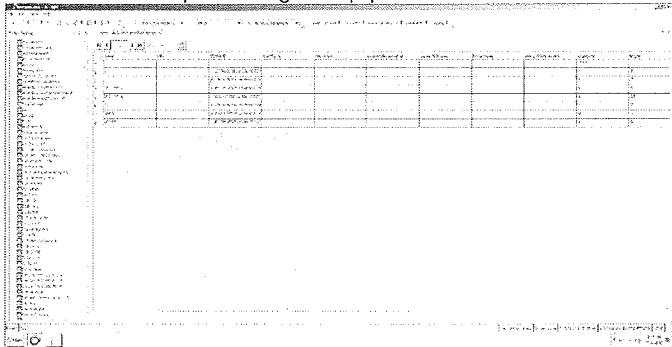
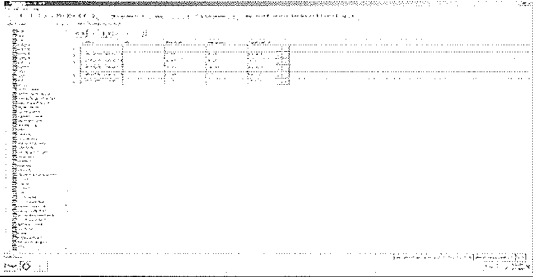
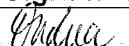
APPENDIX C: TEST RECORD FORMS

26 AUGUST 2012

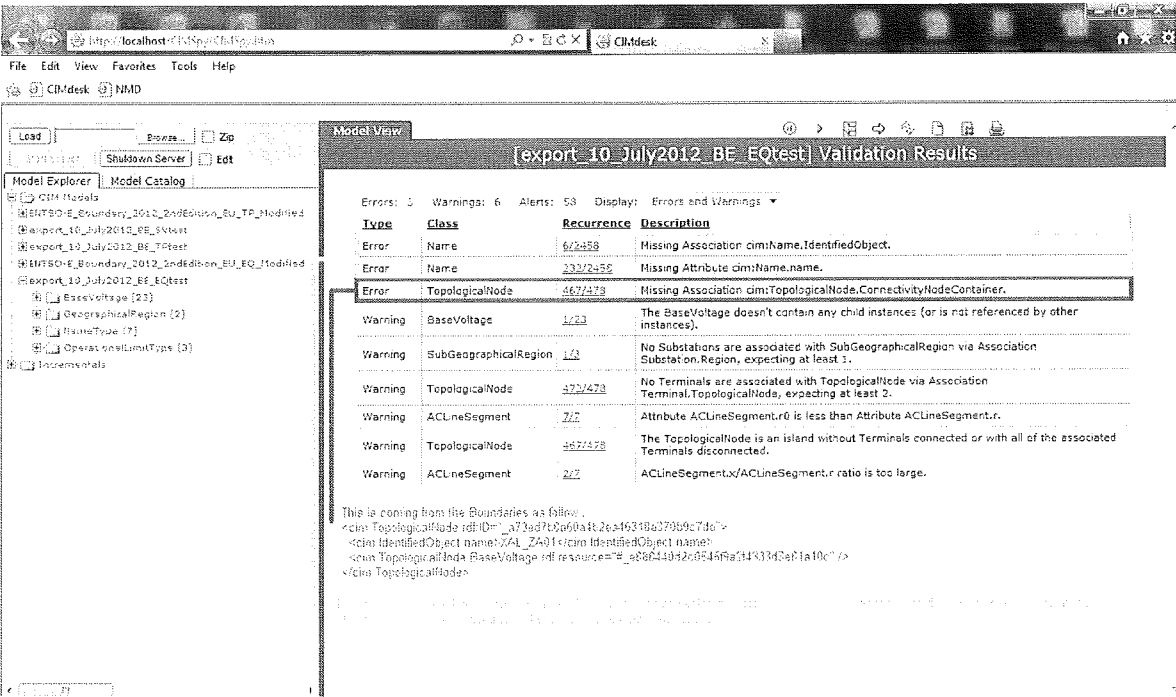
FINAL VERSION

[illegible]

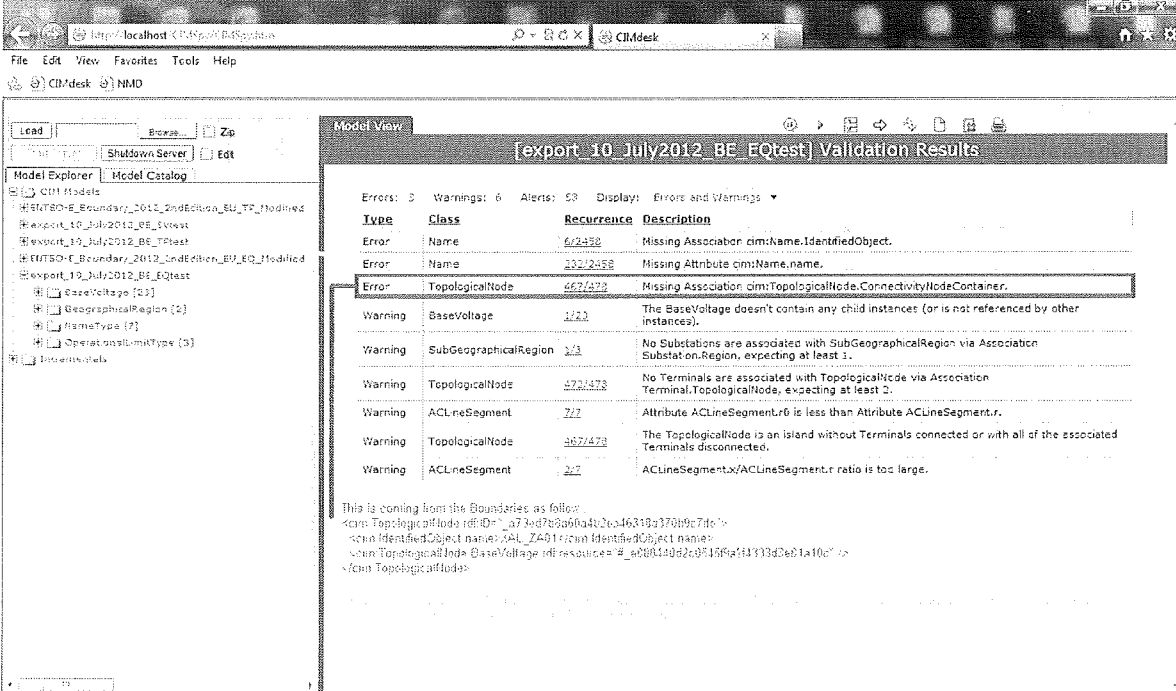
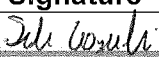
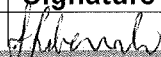
SINGLE TEST RECORD FORM

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Test files:			
Import:		Export	
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Comments/Results/Issues:			
1. No load flow is performed on the e-terrasource site. 2. No able to import single *.zip file. 3. Original profile 1 boundary and Elia MAS files were imported and instance data were checked (BaseVoltage, Substation, ACLineSegment, Topological Node, SVInjection). 4. NOTE that already official test model contains errors after CIMdesk Validation After successful import of Belgium equipment			
			
After successful import of Belgium State variable			
			
Supplementary files:			
ACLineSegment_screenshot.jpg Substation.jpg SV_Injection CIMDesk official model.jpg			
Date	Vendor	Test witness	
10.07.2011	Name	Name	Signature
	Silverio Casulli	Oana Udrea	

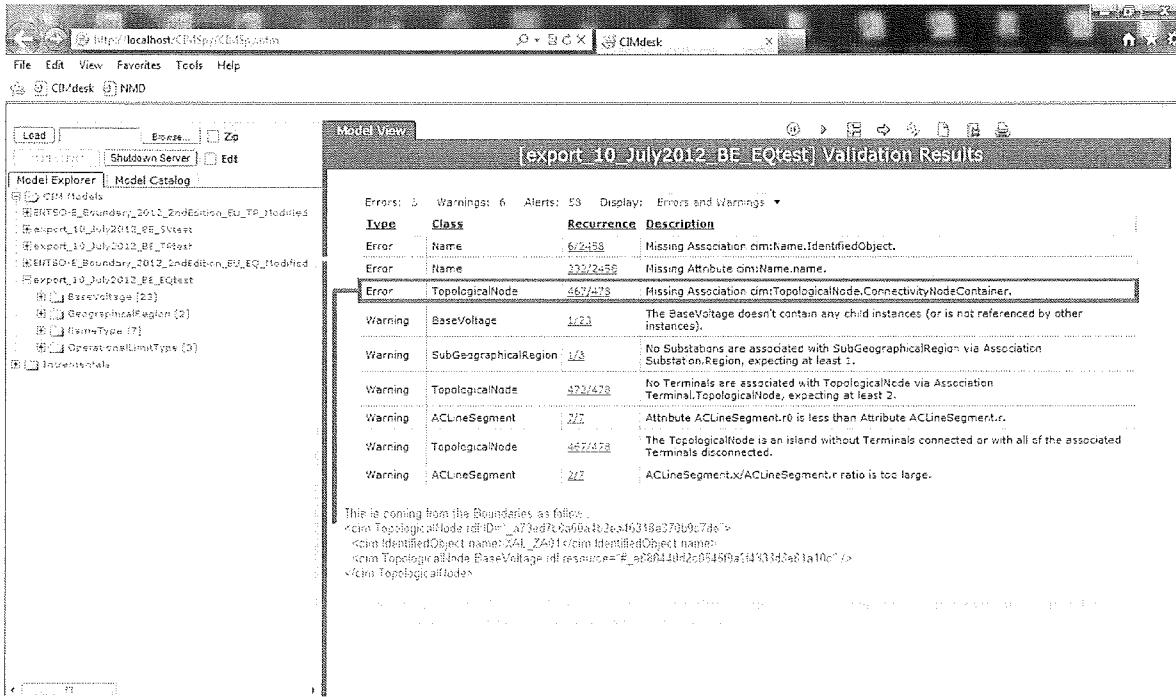
SINGLE TEST RECORD FORM

Test No: 7.3.2	Profile edition: 2	Vendor: ALSTOM GRID	Tool: E-terrasource
Test files:			
Import:	Export		
From Test No: 7.3.1	Export_10_July2012_BE_EQ.xml Export_10_July2012_BE_TP.xml Export_10_July2012_BE_SV.xml		
Comments/Results/Issues:			
1. No able to export single *.zip file. 3 CIN desk validation show some error reported in screenshot. Only Error 1 comes from ETS, other are also in official test model.			
			
Supplementary files:			
Validation_Results.PNG			
Date	Vendor	Test witness	
10.07.2011	Name	Signature	Name
	Silverio Casulli	<i>Silverio Casulli</i>	Oana Udrea
			<i>Oana Udrea</i>

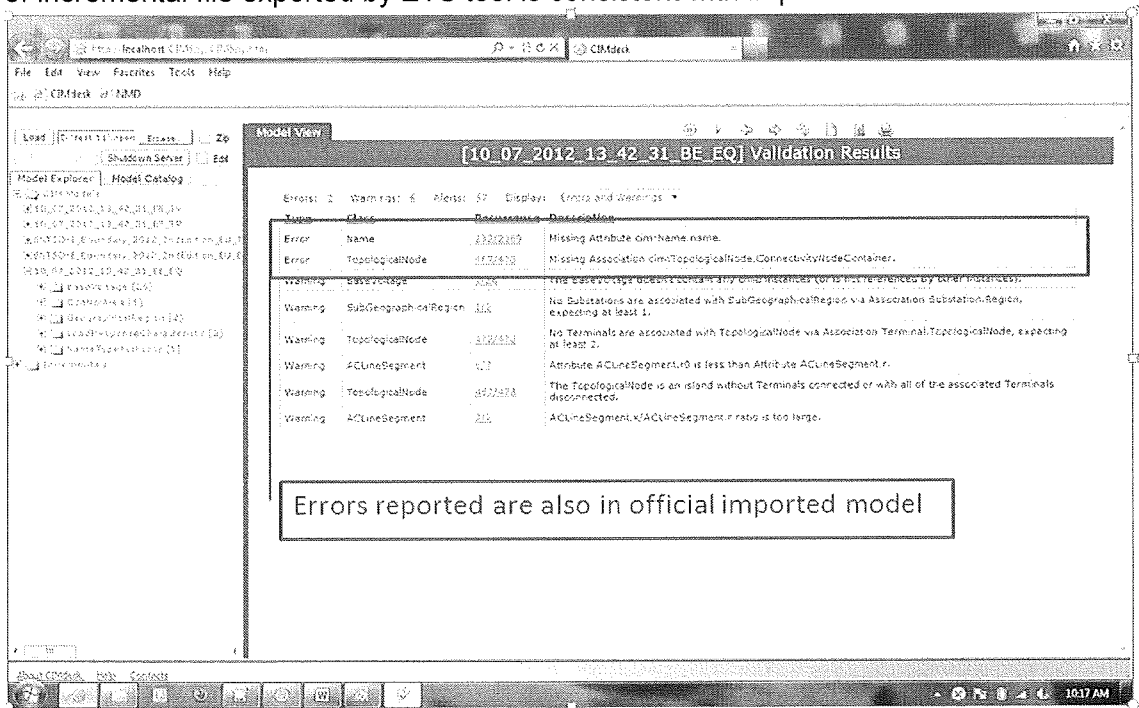
SINGLE TEST RECORD FORM

Test No: 7.3.4	Profile edition: 2	Vendor: ALSTOM GRID	Tool: E-terrasource
Test files:			
Import: From Test No: 7.3.1		Export Export_10_July2012_BE_TP.xml Export_10_July2012_BE_SV.xml	
Comments/Results/Issues:			
1. Open transformer on both terminal • rdf:ID=#_c1d5c1208f8011e08e4d00247eb1f55e • rdf:ID=#_c1d5c1298f8011e08e4d00247eb1f55e 2. TP file is consistent with modification performed 3. No load flow is performed on the e-terrasource site			
			
Supplementary files:			
Topology_modificationETS.jpg TP_results.jpg Validation_Test4_CIMSpy.doc			
Date	Vendor	Test witness	
12.07.2011	Name Silverio Casulli	Signature 	Name Adriano Gubernali
			Signature 

SINGLE TEST RECORD FORM

Test No: 7.3.5	Profile edition: 2	Vendor: ALSTOM GRID	Tool: E-terrasource
Test files:			
Import: From Test No: 7.3.1		Export Export_10_July2012_BE_SV.xml	
Comments/Results/Issues:			
1.modified SvInjection rdf:ID="_c1d5c03d8f8011e08e4d00247eb1f55e_X14" 2.SV file is consistent with modification performed 3.No load flow is performed on the e-terrasource site			
			
Supplementary files:			
Sv_result.jpg SvInjection_modification.jpg Validation_Test4_CIMSpy.doc			
Date	Vendor	Signature	Test witness
12.07.2011	Name Silverio Casulli	Signature <i>Silverio Casulli</i>	Name Adriano Gubernali
			Signature <i>Adriano Gubernali</i>

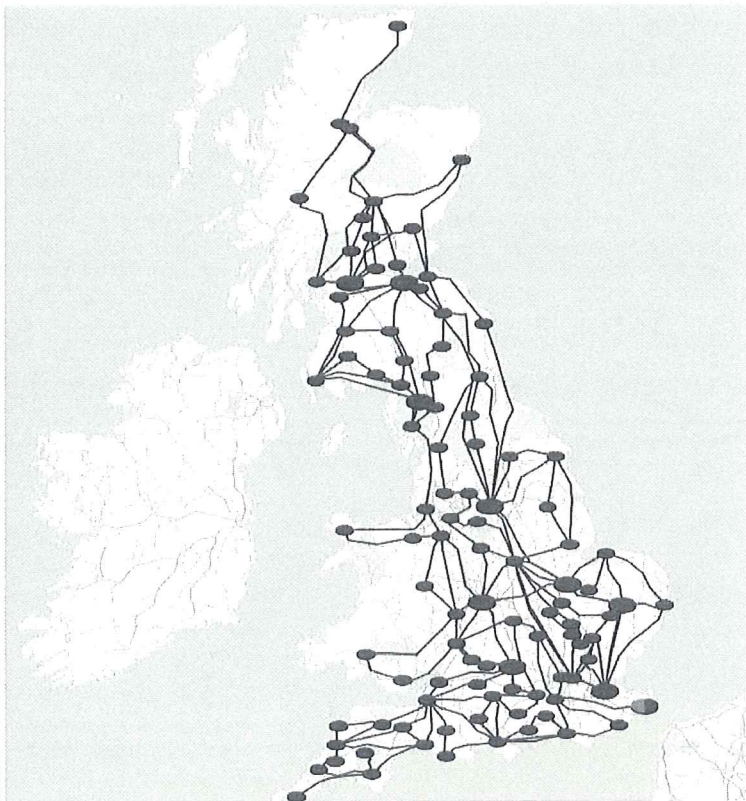
SINGLE TEST RECORD FORM

Test No: 7.3.11	Profile edition: 2	Vendor: ALSTOM GRID	Tool: E-terrasource
Test files:			
Import:		Export	
ENTsoE_Boundary_2012_2ndEdition_EU_EQ_Modified.xml ENTsoE_Boundary_2012_2ndEdition_EU_TP_Modified.xml 10_July2012_BE_EQ.xml 10_July2012_BE_TP.xml 10_July2012_BE_SV.xml		Export_10_July2012_BE_TP.xml Export_10_July2012_BE_SV.xml incr_export_EQ_13July_test11.xml	
Comments/Results/Issues:			
1. modified r0 of ACLine Segment RDF:ID= _c1d5c0b08f8011e08e4d00247eb1f55e 2. validation show 2 errors present but they are also in official test model import. 3. incremental file exported by ETS tool is consistent with imported model			
			
Supplementary files:			
CIMDesk errors official model.jpg ACLineSegment_modification.JPG CIMDesk ETS exported model.jpg			
Date	Vendor	Signature	Test witness
13.07.2011	Name	Name	Signature
	Silverio Casulli	Oana Udrea	

SINGLE TEST RECORD FORM

Test No: 7.3.12	Profile edition: 2	Vendor: ALSTOM GRID	Tool: E-terrasource
Test files:			
Import:		Export	
ENTSOE_Boundary_2012_2ndEdition_EU_EQ_Modified.xml ENTSOE_Boundary_2012_2ndEdition_EU_TP_Modified.xml 10_July2012_BE_EQ.xml 10_July2012_BE_TP.xml 10_July2012_BE_SV.xml incr_export_EQ_13July_test11.xml			
Comments/Results/Issues:			
1.import of incremental file is successfully in ETS 2. no possibility to run load flow on e-terrasource side			
Supplementary files:			
ACLineSegment_modification.JPG			
Date	Vendor	Test witness	
13.07.2011	Name	Name	Signature
	Silverio Casulli	Oana Udrea	<i>[Signature]</i>

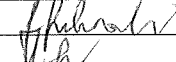
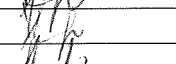
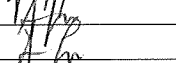
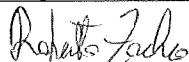
SINGLE TEST RECORD FORM

Test No: 7.3.32	Profile edition: 2	Vendor: ALSTOM GRID	Tool: E-terrasource
Test files:			
Import:		Export	
IEEE118 network		export_IEEE118_OGS_6Jul2012_EQ.xml export_IEEE118_OGS_6Jul2012_TP.xml export_IEEE118_OGS_6Jul2012_GE.xml	
Comments/Results/Issues:			
1.import of geographical file is successfully in ETS 2.Open Grid System exported ETS model and detected a problem on header, after correction visualization geographical model is correct.			
			
Supplementary files:			
ETS_PositionList.jpg			
OGS_Screenshot_Alstom_Export_after_header_correction.png			
Date	Vendor	Test witness	
13.07.2011	Name	Name	Signature
	Silverio Casulli	Adriano Gubernali	

TOOL SUMMARY FORM (PER TOOL) - PROFILE 2

[illegible]

TOOL SUMMARY FORM (PER TOOL) - PROFILE 2

Vendor/Tool:		CESI/CRESO		Profile edition 2	
Witnessed by TERNA					
Name		Signature		Signature	
1. Adriano Gubernali				9. Adriano Gubernali	
2. Adriano Gubernali				10.	
3. Adriano Gubernali				11.	
4. Adriano Gubernali				12.	
5. Adriano Gubernali				13.	
6. Adriano Gubernali				14.	
7. Adriano Gubernali				15.	
8.				16.	
Performed tests					
Test No	OK/-	Test No	OK/-	Test No	OK/-
1	OK				
2	OK				
3	OK				
4	OK				
5	OK				
6	OK				
7	OK				
9	-				
Comments/references to issues:					
Date		Vendor		ENTSO-E	
13/07/2012		Roberto Zacheo		Charles Ivanov	
		Signature		Signature	
					

7.4.2 TOOL SUMMARY FORM (PER TOOL) - PROFILE 2

[illegible]

7.1.1 TOOL SUMMARY FORM (PER TOOL) - PROFILE 2

Vendor/Tool:		DMS&EKC / TNA 1.10		Profile edition 2	
Witnessed by					
Name		Signature		Name	
1. Zisis Hendida				9. A. Székely	
2. Zisis Hendida				10. Dávid Adna	
3. A. Székely				11. A. Székely	
4. Adam Székely				12. NIKOLA JANJIĆ (NOS BIH)	
5. Adam Székely				13. DANKO DOKUPOVSKI MEPE	
6. J. Hubenah (TERNA)				14.	
7. J. Hubenah (TERNA)				15.	
8. N. Krčmar (EMS)				16.	
Performed tests					
Test No	OK/-	Test No	OK/-	Test No	OK/-
1	OK			31	OK
2	OK				
3	OK*				
4	OK				
5	OK				
6	OK				
7	OK				
8	OK				
9	OK ¹⁰				
10	OK				
11	OK				
12	OK*				
13	OK				
Comments/references to issues:					
Remark. Test 3 compared with OGS model results (exported in Open Document) Reactive power results at transformers slightly differ, otherwise OK Remark. Test 3 performed with both Area results from same vendor. REMARK. Test 12 load flow performed without reactive limits. Reactive power results slightly differ. Remark: Test 10 compared with OGS, TNA runs the TE without reactive limits.					
Date		Vendor		ENTSO-E	
13.07.2012		Name		Name	
		Signature		Signature	
		DRAGAN TOMIĆ		Charakter Ivanov	

7.1.1 TOOL SUMMARY FORM (PER TOOL) - PROFILE 2

[illegible]

SINGLE TEST RECORD FORM

Test No:8	Profile edition No:2	Tool:Integral 7	Score: OK
Test files:			
Import		Export	
IEC60909-4_PF10J15h.zip		IEC60909_PF_FGH.zip	
Comments/Results/Issues:			
- results for SC 3ph and SC 1ph match exactly those presented in IEC-60909 - exported model was imported by DigSILENT. Results also match exactly.			
Supplementary files:			
IEC-60909-PF-SC-3ph_FGH.pdf IEC-60909-PF-SC-1ph_FGH.pdf			
Date	Vendor	Test witness	
12.07.2012	Name: Dirk Cremer	Name:	Signature
	Dirk Cremer	Marcel Forlong	

SINGLE TEST RECORD FORM

Test No:8	Profile edition No:2	Tool:Integral 7	Score: OK
Test files:			
Import		Export	
IEC60909-4_CIM-Test_NE_05J17h.zip			
Comments/Results/Issues:			
- results for SC 3ph and SC 1ph match exactly those presented in IEC-60909			
Supplementary files:			
IEC-60909_NE_SC_3ph_FGH.pdf			
IEC-60909_NE_SC_1ph_FGH.pdf			
Date	Vendor	Signature	Test witness
12.07.2012	Name:	Name:	Signature
	Dirk Cremer	Marcel Forlong	

SINGLE TEST RECORD FORM

Test No: 1 + 3	Profile edition No: 2	Tool: Integral 7	Score: OK
Test files:			
Import		Export	
10_July2012_BE.zip ENTSO-E_Modified_Boundary_2012_2nd editon.zip			
Comments/Results/Issues:			
- Import without errors - PF results slightly different to those in Screen Shot "2012-07-04 at 02.01.06.png" but very good matching of PF results with "V2-BE-Graphic-Results.pdf", provided by NEPLAN			
Supplementary files:			
BE_PF_FGH.pdf			
Date	Vendor	Test witness	
12.07.2012	Name:	Name:	Signature
	Dirk Cremer	Marcel Forlong	

SINGLE TEST RECORD FORM

Test No: 1 + 3	Profile edition No: 2	Tool: Integral 7	Score: OK
Test files:			
Import		Export	
IEEE118-ENTSO-E-OGS-12Jul2012.zip EU_CN_Boundary.zip			
Comments/Results/Issues:			
- Import without errors - PF results match very good to those provided in "IEEE118-powerflow-results-12Jul2012.xls"			
Supplementary files:			
IEEE118_PF_result_FGH.xlsx			
Date	Vendor	Test witness	
12.07.2012	Name:	Name:	Signature
	Dirk Cremer	Marcel Forlong	

SINGLE TEST RECORD FORM

Test No: 9	Profile edition No: 2	Tool: Integral 7	Score: OK
Test files:			
Import		Export	
10_July2012_BE.zip 10July2012_NL.zip ENTSO-E_Modified_Boundary_2012_2nd editon.zip		16nodes_merged_FGH.zip	
Comments/Results/Issues:			
- Import performed without errors - Power flow performed			
Supplementary files:			
16node_PF_without_power_flow_regulation_FGH.pdf 16node_PF_with_power_flow_regulation_FGH.pdf			
Date	Vendor	Test witness	
12.07.2012	Name: Dirk Cremer	Signature 	Name: Marcel Forlong
			Signature 

SINGLE TEST RECORD FORM

Test No: 2 + 3		Profile edition No:2		Tool: Integral 7		Score: OK	
Test files:							
Import				Export			
EU_CN_Boundary.zip				IEEE118-FGH-Export.zip			
IEEE118-ENTSO-E-OGS-12Jul2012.zip							
Comments/Results/Issues:							
- Network model from Test 1 was exported. - This export was Imported by Open Grid Systems. They were able to perform a PF calculation. The results were compared and match.							
Supplementary files:							
IEEE118_PF_result_FGH.xlsx							
Date		Vendor		Test witness			
13.07.2012		Name:		Name:		Signature	
		Dirk Cremer		Svein Olsen			
							

SINGLE TEST RECORD FORM

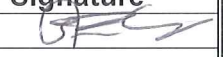
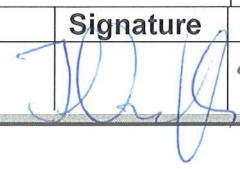
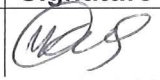
Test No: 6	Profile edition No:2	Tool: Integral 7	Score: OK
Test files:			
Import		Export	
EU_CN_Boundary.zip IEEE118-ENTSO-E-OGS-12Jul2012.zip IEEE118-ENTSO-E-OGS- Cimphony_12Jul15h2012_TPC.zip			
Comments/Results/Issues:			
The original IEEE118-Model was combined with OGS export of Topology change. The PF could be calculated in INTEGRAL 7. The PF results were compared with those of OGS and match.			
Supplementary files:			
OGS_modified-powerflow-results_TPC_FGH.xls			
Date	Vendor	Signature	Test witness
13.07.2012	Name:	Name:	Signature
	Dirk Cremer	Svein Olsen	

SINGLE TEST RECORD FORM

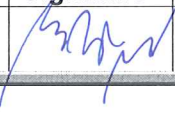
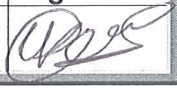
Test No: 7	Profile edition No:2	Tool:Integral 7	Score: OK
Test files:			
Import		Export	
EU_CN_Boundary.zip IEEE118-ENTSO-E-OGS-12Jul2012.zip IEEE118-ENTSO-E-OGS- Cimphony_12Jul2012_SVC.zip			
Comments/Results/Issues:			
The original IEEE118-Model was combined with OGS export of StateVariable change. The PF could be calculated in INTEGRAL 7. The PF results were compared with those of OGS and match.			
Supplementary files:			
OGS_modified-powerflow-results_SVC_FGH.xls			
Date	Vendor	Test witness	
13.07.2012	Name:	Name:	Signature
	Dirk Cremer	Svein Olsen	

TOOL SUMMARY FORM (PER TOOL)

PROFILE 2

Vendor/Tool:		Intercompro / ISPEN		Profile edition 2	
Witnessed by					
Name		Signature		Name	
1. Juan Pablo Fernandez				9.	
2.				10.	
3.				11.	
4.				12.	
5.				13.	
6.				14.	
7.				15.	
8.				16.	
Performed tests					
Test No	OK/-	Test No	OK/-	Test No	OK/-
1	OK				
2	-				
3	OK				
4	-				
5	-				
6					
7	-				
9	-				
10	OK				
Comments/references to issues:					
ISPEN didn't export Model CIM Profile2 compliant → to be corrected by the vendor BE transformers has to be declared as "Equivalent" as the parameter are not realistic → 16Nodes BE Model have to be corrected ISPEN could make Topology and solution changes but the export of Profile 2 is not working very well Both MAS could be imported and merged, but export of Profile2 not is not working very well					
Date	Vendor		ENTSO-E		
13.07.2012	Name	Signature	Name	Signature	
	Ingemund Nordanlycke		Chausser Dranov		

[illegible]

Vendor/Tool:	Mikronika / Syndis-RV		Profile edition 1	
Witnessed by				
Name	Signature	Name	Signature	
2. Tomasz Rogowski		9.		
2.		10.		
3.		11.		
4.		12.		
Performed tests				
Test No	OK/-	Test No	OK/-	Test No
4	OK			
5	OK			
3	OK			
A	3			
Comments/references to issues: Test 4 Original profile 1 boundary and Elia MAS files were imported. Terminal "2" from ACLineSegment "Line 1" had been disconnected (attribute Terminal.connected set to false). The changed model had been successfully solved. Exported file Elia_10J11h.zip contains Elia_10J11h_SV.xml and Elia_10J11h_TP.xml. No errors had been detected in exported files (validation.png). Test 5 Original profile 1 boundary and Tenneset MAS files were imported. Generator "W1" active power was changed to -200 MW and load "Xnode load 2" active power was changed to 60 MW. The changed model has been successfully solved. Exported file Tenneset_10J13h.zip contains Tenneset_10J13h_SV.xml file. No errors had been detected in exported files (validation.png). Test 3 Original profile 1 boundary file and RTE_OGS_Cimphony_10Jul2012-a.zip file exported by OpenGridSystems were imported. The model has been successfully solved. The results match the OpenGridSystems results in an engineering tolerance. Test A The Elia model was exported to file Elia_09J14h.zip (EQ ,TP, SV). No errors were detected. Exported model was reimported from Elia_09J14h.zip file. No errors and changes were detected in the reimported model. The same load flow was obtained on the reimported model.				
Date				
10-07-2012	Vendor		ENTSO-E	
	Name	Signature	Name	Signature
	Michał Wiernowolski		Chavdar Ivanov	

Vendor/Tool:	Mikronika / Syndis-RV	Profile edition 1
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Witnessed by			
Name	Signature	Name	Signature
1. Tomasz Rogowski		4.	
2.		5.	
3.		6.	

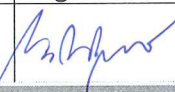
Performed tests									
Test No	OK/-	Test No	OK/-	Test No	OK/-	Test No	OK/-	Test No	OK/-
6	OK								
9	OK								
7	OK								

Comments/references to issues:

Test 6
Original profile 1 boundary file, EQ from original RTE and TP/SV from RTE_OGS_Cimphony_10Jul2012_TPC.zip file exported by OpenGridSystems were imported.
The model had been successfully solved.
The results matched the OpenGridSystems results within engineering tolerance.

Test 9
Original MAS files were imported (120703_ENTSO-E_Boundary_Set_v17_EU.zip, Amprion.zip, Elia.zip, RTE.zip, Tennet.zip).
The model was successfully assembled and solved (solution1.png).
Assembled model was exported into mikronika_assembled_11J12h.zip.
Validation results showed four dangling SvVoltage objects (validation1a.png).
This issue was corrected and the new model was exported into merged_by_mikronika_12J13h.zip.
Subsequent validations showed one warning, in the merged model SvPowerFlow values should be set to zero at X-nodes. (validation1b.png).
Then SV and TP files were imported from test04 (Elia_10J11h.zip).
The updated model was successfully solved (solution2.png).
The assembled and solved model was exported into mikronika_assembled_11J15h.zip.
In the second run RTE_OGS_Cimphony_10Jul2012_TPC.zip file from OpenGridSystems results from test 4 was used (solution2-ogs.png).

Test 7
Original boundary (120703_ENTSO-E_Boundary_Set_v17_EU.zip), EQ/TP from RTE.zip and SV file exported by OpenGridSystems in test 5 (RTE_OGS_Cimphony_10Jul2012_SVC.zip) were imported and merged successfully.
The model was solved and obtained results match within engineering tolerance the OpenGridSystems results obtained in test 5.
There was discrepancy in reactive power for two nodes (slack and virtual node of 3-winding transformer).

Date	Vendor	ENTSO-E
11-07-2012	Name	Name
	Signature	Signature
	Michał Wiernowolski 	Chavdar Ivanov 

[illegible]

[illegible]

[illegible]

Witnessed by

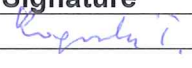
Performed tests

Comments/references to issues:

Date	Vendor		ENTSO-E	
11-07-2012	Name	Signature	Name	Signature
	Michał Wiernowolski		Chavdar Ivanov	

[illegible]

Vendor/Tool:	Mikronika / Syndis-RV	Profile edition 2
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Witnessed by			
Name	Signature	Name	Signature
4. Tomasz Rogowski		9.	
2.		10.	
3.		11.	
4.		12.	
5.		13.	
6.		14.	
7.		15.	
8.		16.	

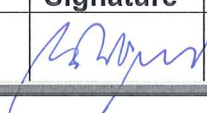
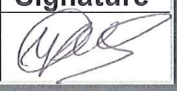
Performed tests									
Test No	OK/-	Test No	OK/-	Test No	OK/-	Test No	OK/-	Test No	OK/-
12	OK								
11	OK*								
7	OK*								

Comments/references to issues:

Test 12
Files ENTSO-E_Boundary_OGS_9Jul2012.zip and Import.zip from DMS_EKC were imported. Differential file TNA_IEEE118_OGS_6Jul2012_Equipment_DIFFv02.zip was successfully applied.
The power flow results matched within engineering tolerance.

Test 11
10_07_2012_13_42_31_EU.zip and 10_07_2012_13_42_31_NL.zip files were imported. Another transformer (cp_AMSN1) parallel to AMSN1 was added.
Load flow was successful (loadflow.png).
The equipment difference and complete topology and state variables files were exported. There was an issue with missing RatioTapChanger.TransformerEnd reference (import_validation.png).

Test 7
EEE118-ENTSO-E-OGS-Cimphony_12Jul2012_SVC.zip, EU_CN_Boundary_12Jul2012.zip and IEEE118-FGH-Export.zip were imported.
There was an issue with SV file, as SvPowerFlow.Terminal references didn't match ids from EQ and TP files.

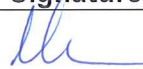
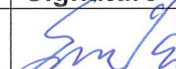
Date	Vendor	ENTSO-E
13-07-2012	Name	Name
	Michał Wiernowolski	Chavdar Ivanov
	Signature	Signature
		

TOOL SUMMARY FORM (PER TOOL) - PROFILE 2[illegible]

TOOL SUMMARY FORM (PER TOOL) - PROFILE 1[illegible]

Chavdar Ivanov 

TOOL SUMMARY FORM (PER TOOL) - PROFILE 2

Vendor/Tool:		Open Grid Systems/Cimphony v2.2.1		Profile edition 2	
Witnessed by					
Name Svein Olsen		Signature		Name	
1. Svein Olsen				9.	
2.				10.	
3.				11.	
4.				12.	
5.				13.	
6.				14.	
7.				15.	
8.				16.	
Performed tests					
Test No	OK/-	Test No	OK/-	Test No	OK/-
1	OK	29	-		
2	OK	30	OK		
3	OK	31	OK		
4	OK	32	OK		
5	OK	33	OK		
6	OK				
7	OK				
9	OK				
10	OK				
11	OK				
12	OK				
13	OK				
14	OK				
27	-				
28	-				
Comments/references to issues:					
Tests 27, 28 and 29 were not executed because there was no working operational model.					
Date					
Vendor		ENTSO-E			
Name		Signature		Name	
13/7/2012				Svein Olsen	
Alan McMoran					
				Chavdar Tsvetkov	

[illegible]

Comments/references to issues:

1. Imported BE.zip, NL.zip, & EU.zip
 - 1.1) No issues observed during import or merge
 Spot checked ACLineSeg's, PowerTransformers, SubGeographicRegion for number of instances – all correct
 BRUB4 MRID was checked and correct
 Server currently lacks model validation (to be added before next test iteration)
 Server does not currently support multiple names (to be added before next test iteration)
 No issues observed during import
 - 1.2) Updated tool to include model validation and to add support for multiple names
 Examined import log for errors. Found duplicate MRIDs on BE-SV line 96 and on NL-SV line 83 for SVVoltage instances on boundary. It is believe this is OK because this duplicate node should not be used when running power on the merged model.
 Checked number of instances – all correct
 Checked Breaker N2N1 MRID – correct
 Check HydroGeneratingUnit AMSN2 – correct
 Checked TopoNode XAC_LO11- correct
 Captured screens shots named: "Duplicate IDs and counting instances", "Breaker", "Hydro", and "TopoNode"
2. Imported IEC118-ENTSO-E-OGS-11Jul2012.zip & ENTSO-E_Boundary_OGS_9Jul2012.zip
 - 2.1) No issues observed during import and merge
 Checked number of instances – all correct
 Checked Combe and OldTown substation – all data correct
 Captured screen shots named: "Counting instances for IEC Model", "Combe" and "OldTownLocation".

Date		Vendor		ENTSO-E	
		Name	Signature	Name	Signature
7/11/12	–				
7/13/12		John Gillerman		Chaudhry Iqbal	

[illegible]

10_July2012_BE.zip, 10_July2012_NL.zip

Errors/Warnings: None Encountered

Checked Merging process and GeographicalRegions

Screenshot: UIB_CORE_ENSTOE16v3_Test2_GeoRegions.jpg,

Test 3: Profile 2 Test Case 1 – Import Only, No Load Flow or Export

Witness: .Stanescu Oana

File Set: 120703_ENTSO-E_CIM_Profile_2nd_edition_v33_3July2012_RDFS.zip

Mikronika_Subst_EQ.xml, Mikronika_Subst_DI.xml

Errors/Warnings:

EQ file included instances of class GroundDisconnector that is not part of the

ENTSO-e profile. Additionally, the DI file had an IdentifiedObject.name attribute for VisibilityLayer. The attribute is not in the ENTSO-e profile but is in the CIM 61970 class.

Checked: Expansion Bay, VoltageLevel, BaseVoltage, and Substation. Also expanded Diagrams.

Screenshot: UIB_CORE_Mikronika_Test3_Bays.jpg,

UIB_CORE_Mikronika_Test3_Diagram.jpg

Test 4: Profile 2 Test Case 1 – Import Only, No Load Flow or Export

Witness: .Stanescu Oana

File Set: 120703_ENTSO-E_CIM_Profile_2nd_edition_v33_3July2012_RDFS.zip

IEC60909-4_CIM-Test_NE_05J08h.zip (NEPLAN Short Circuit).

Errors/Warnings: None Encountered

Checked: SynchronousMachine ratings (Gen-1)

Screenshot: UIB_CORE_NEPLAN_ShortCircuit_Test4_SyncMach.jpg,

Test 5: Profile 2 Test Case 1 – Import Only, No Load Flow or Export

Witness: .Stanescu Oana

File Set: 120703_ENTSO-E_CIM_Profile_2nd_edition_v33_3July2012_RDFS.zip

BOUNDARY 16 PROFILE-2ndEdition.zip (NEPLAN ENTSO-E 16).

ENTSOE-16-Node-BE_NE_04J15h.zip

Errors/Warnings: None Encountered

Checked: EnergyConsumer –L1, Generating Unit (Gen-6338)

Screenshot: UIB_CORE_NEPLAN_ENTSOE16_Test5_EnergyConsumer.jpg

UIB_CORE_NEPLAN_ENTSOE16_Test5_GeneratingUnit.jpg

Test 6: Profile 2 Test Case 1 – Import Only, No Load Flow or Export

Witness: .Stanescu Oana

File Set: 120703_ENTSO-E_CIM_Profile_2nd_edition_v33_3July2012_RDFS.zip

Boundary.zip (DMS ENTSO-E 16).

BE_TNA.zip

Errors/Warnings: None Encountered

Checked: ThermalGeneratingUnit(G1) ,

FossilFuel(id= _1DDDDDD08F8211E08E4D00247EB1F55E)
 Screenshot: UIB_CORE_DMS_ENTSOE16_Test6_ThermalGenerator.jpg
 UIB_CORE_DMS_ENTSOE16_Test6_FossilFuel.jpg

Test 7: Profile 2 Test Case 9 – Import Only, No Load Flow or Export

Witness: .Stanescu Oana
 File Set: 120703_ENTSO-E_CIM_Profile_2nd_edition_v33_3July2012_RDFS.zip
 BOUNDARY 16 PROFILE-2ndEdition.zip (NEPLAN ENTSO-E 16).
 ENTSOE-16-Node-BE_NE_04J15h.zip
 ENTSOE-16-Node-NL_NE_04J15h.zip
 Errors/Warnings: None Encountered

Checked: Expansion of GeographicalRegions down to Substations
 Screenshot: UIB_CORE_NEPLAN_ENTSOE16_Test7_GeographicalRegions.jpg

Test 8: Profile 2 Test Case 9 – Import Only, No Load Flow or Export

Witness: .Stanescu Oana
 File Set: 120703_ENTSO-E_CIM_Profile_2nd_edition_v33_3July2012_RDFS.zip
 Boundary.zip (DMS ENTSO-E 16).
 BE_TNA.zip
 NL_TNA.zip
 Errors/Warnings: None Encountered

Checked: Expansion of GeographicalRegions down to Substations
 Screenshot: UIB_CORE_DMS_ENTSOE16_Test8_GeographicalRegions.jpg

Test 9: Profile 2 Test Case 1 – Import Only, No Load Flow or Export

Witness: .Stanescu Oana
 File Set: 120703_ENTSO-E_CIM_Profile_2nd_edition_v33_3July2012_RDFS.zip
 IEC60909-4_PFI0J15h.zipBE_TNA.zip (PowerFactory ShortCircuit).
 Errors/Warnings: None Encountered

Checked: SvPowerFlow being in Correct TopologicalNode/Substation
 Screenshot: UIB_CORE_PowerFactory_ShortCircuit_Test9_SvFlow.jpg

Test 10: Profile 2 Test Case 1 – Import Only, No Load Flow or Export

Witness: .Stanescu Oana
 File Set: 120703_ENTSO-E_CIM_Profile_2nd_edition_v33_3July2012_RDFS.zip
 ENTSO-E_Boundary_OGS_9Jul2012.zip
 IEEE118-ENTSO-E-OGS-10Jul2012-b.zip
 Errors/Warnings: None Encountered

Checked: Busbar, Unicode names, ShuntCompensator
 Screenshot: UIB_CORE_OGS_IEEE_Test10_ShuntCompensator.jpg

Test 11: Profile 2 Test Case 1 – Import Only, No Load Flow or Export

Witness: .Stanescu Oana
 File Set: 120703_ENTSO-E_CIM_Profile_2nd_edition_v33_3July2012_RDFS.zip
 ABB40us20120711.zip

Errors/Warnings:**Exported Attributes not in profiles (Warnings):**

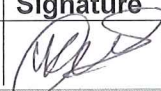
IdentifiedObject.aliasName appears in instances not in profile
 Discrete.normalValue appears in instances not in profile
 Analog.maxValue appears in instances not in profile
 Analog.minValue appears in instances not in profile
 Analog.normalValue appears in instances not in profile

Detected Modelling and ENTSO-e profile issue (reported to Chavdar):

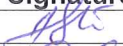
Curve.xMultiplier appears in instances not in profile
 (VSCCapabilityCurve.xMultiplier is in profile).
 Curve.y1Multiplier appears in instances not in profile
 (VSCCapabilityCurve.y1Multiplier is in profile).
 Curve.y2Multiplier appears in instances not in profile
 (VSCCapabilityCurve.y2Multiplier is in profile).

Checked: SvStatus of Breaker(CLAR220BAY11SW_D) in Screenshot
 ShuntCompensator values (in Screenshot)

Screenshot: UIB_CORE_ABB_ABB40_Test11_SvStatus.jpg
 UIB_CORE_ABB_ABB40_Test11_ShuntCompensator.jpg

Vendor: SISCO		ENTSO-E	
12/07/2012	Name	Signature	Signature
	Herbert Falk		

7.1.1 TOOL SUMMARY FORM (PER TOOL) - PROFILE 2

Vendor/Tool:	SISCO/UIB Adapter for PI-AF		Profile edition 2						
Witnessed by									
Name	Signature	Name	Signature						
1. Stanescu Oana (so)		9.							
2. Adam Szekely (as)		10.							
3. Tomasz Rogowski (tr)		11.							
4.		12.							
5.		13.							
6.		14.							
7.		15.							
8.		16.							
Performed tests									
Test No	OK/-	Test No	OK/-	Test No	OK/-	Test No	OK/-	Test No	OK/-
1	Ok so								
9	Ok so								
31	Ok so								
10	Ok as								
32	Ok as								
33	Ok as								
8	Ok as								
1_2	Ok tr								
Comments/references to issues:									
Test number notation is Testrun-Profile2 Test Number									
All tests use Shema file:									
120703_ENTSO-E_CIM_Profile_2nd_edition_v33_3July2012_RDFS									
Test #1 – (Profile #2 – TestCase #1) - can to import but not load flow									
Test Witness – Stanescu Oana									
ENTSOE16Nodeslv3_10July2012									
ENTSO-E_Modified_Boundary_2012_2nd editon.zip									
10_July2012_BE.zip									
Looked for rdfid of EnergyConsumer (D1) - _c1d5c0398f8011e08e4d00247eb1f55e									
Screenshot - UIB-PIADPT_ENTSOE16V3_Test1_1.png									
Looked for SynchronousMachine and verified against xmlFile									
Screenshot - UIB-PIADPT_ENTSOE16V3_Test1_2.png									
Test #9 – (Profile #2 – TestCase #9) - can to import but not load flow or export									
Test Witness – Stanescu Oana									
ENTSOE16Nodeslv3_10July2012									
ENTSO-E_Modified_Boundary_2012_2nd editon.zip									
10_July2012_BE.zip									
10_July2012_NL.zip									
Checked merge process trough Geographical Regions and associations									
Screenshot - UIB-PIADPT_ENTSOE16V3_Test9_1.png									

Test #31 – (Profile #2 – TestCase #31) - can to import but not load flow or export

Test Witness – Stanescu Oana

ENTSOE16NodesV3_10July2012

ENTSO-E_Modified_Boundary_2012_2nd editon.zip

10_July2012_BE_Modified.zip

Modified the header of 10_July1012_BE_TP.xml and re-zipped files to ENTSO-E_Modified_Boundary_2012_2nd editon.zip

Upon import of ENTSO-E_Modified_Boundary_2012_2nd editon.zip

The application puts up an pop-up message box to inform the user that the DependsOn not defined in the model and asks if the user wants to continue. Depending on the response from the user a message will also be logged to the Log File.

Screenshot - UIB-PIADPT_ENTSOE16V3_Test31_1.png

Test #10 – (Profile #2 – TestCase #10) - can to import but not load flow or export

Test Witness – Adam Szekely

ENTSO-E_Boundary_OGS_9Jul2012

IEEE118-ENTSO-E-OGS-10Jul2012-b.zip

Verified State Instance Values

Screenshot - UIB-PIADPT_IEEE118_Test10_1.png

Test #32 – (Profile #2 – TestCase #32) - can to import but can't display diagram or export
But can change data

Test Witness – Adam Szekely

ENTSO-E_Boundary_OGS_9Jul2012.zip

IEEE118-ENTSO-E-OGS-10Jul2012-b.zip

Verified Diagram Instance Values and changed values

Screenshot:

UIB-PIADPT_IEEE118_Test32_1.png

Test #33 – (Profile #2 – TestCase #33) - can to import but can't display geographical data
changes are allowed but can't export

Test Witness – Adam Szekely

ENTSO-E_Boundary_OGS_9Jul2012.zip

IEEE118-ENTSO-E-OGS-10Jul2012-b.zip

Verified geographical data

Screenshot: UIB-PIADPT_IEEE118_Test33_1.png

Test #8 – (Profile #2 – TestCase #8) - can to import but short circuit results

Test Witness – Adam Szekely

ENTSO-E_Boundary_OGS_9Jul2012.zip

PowerFactory\IEC60909-4_Pf10J15h.zip

Looked at SvVoltage Values

Screenshot: UIB-PIADPT_ShortCircuit_PowerFlow_Test8_1

Test #1_2 – (Profile #2 – TestCase #1) - can to import but not load flow

Test Witness – Tomasz Rogowski

V3\ABB40us20120711.zip

Verified Class Counts from ClassInstanceCounts.log and

ClassInstanceCounts_CIMdesk.png.

import_valid_result_CIMdesk.png and
import_valid_result_CIMdesk_1.png show problems in validation also shown in
SiscoUnresolvedInstance Class(UIB-PIADPT_ABB40v3_Test1_1.png) and through
Analog Value association path (UIB-PIADPT_ABB40v3_Test1_2.png)

Additional Import Information Files:

Import Log File Summary: LogFileSummary.txt

ClassInstanceCounts.log

Screenshot:

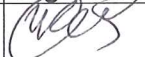
import_valid_result_CIMdesk.png

import_valid_result_CIMdesk_1.png

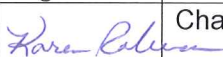
ClassInstanceCounts_CIMdesk.png

UIB-PIADPT_ABB40v3_Test1_1.png

UIB-PIADPT_ABB40v3_Test1_2.png

12/07/12	Vendor SISCO		ENTSO-E	
	Name	Signature	Name	Signature
	Karen Robinson		Chavdar Ivanov	

7.1.1 TOOL SUMMARY FORM (PER TOOL) - PROFILE 2

Vendor/Tool:		SISCO/UIB Adapter for PI-AF		Profile edition 1	
Witnessed by					
Name		Signature		Name	
1. Stanescu Oana (SO)				9.	
2.				10.	
3.				11.	
4.				12.	
5.				13.	
6.				14.	
7.				15.	
8.				16.	
Performed tests					
Test No	OK/-	Test No	OK/-	Test No	OK/-
1	Ok-so				
9	Ok-so				
Comments/references to issues:					
Test number notation is Testrun-Profile2 Test Number					
Test #1 – (Profile #1 – Profile 2 Test #1) - can to import but not load flow Test Witness – Stanescu Oana NOTE: files do not contain header information so had to be unzipped to import 120703_ENTSO-E_Boundary_Set_v17_EU.zip (unzipped) Elia.zip (unzipped) Verified FossilFuel against EQ file ScreenShot: UIB-PIADPT_Elia_Test1_1.png Verified RatioTapChangers against EQ File Screenshot: UIB-PIADPT_Elia_Test1_2.png Test #9 – (Profile #1 – Profile 2 Test #9) - can to import but not load flow or export Test Witness – Stanescu Oana NOTE: files do not contain header information so had to be unzipped to import ENTSOE_4_area_AssembledModel.zip (unzipped) Verified assembled model through GeographicalRegion ->SubGeoGraphicalRegion->Substation Screenshot: UIB-PIADPT_entsoe4_Assembled_Test9_1.png					
		Vendor SISCO		ENTSO-E	
12/07/12		Name		Name	
		Karen Robinson		Chavdar Ivanov	
					
		Signature		Signature	

7.1.1 TOOL SUMMARY FORM (PER TOOL) - PROFILE 2

[illegible]

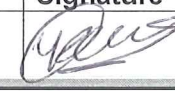
[illegible]

Test 10

Imported files : Export from CESI : 10_07_2012_13_42_31_BE+NL_EQ.xml,
10_07_2012_13_42_31_BE+NL_TP.xml, 10_07_2012_13_42_31_BE+NL_SV.xml with
boundary files ENTSO-E_Boundary_2012_2ndEdition_EU_EQ_Modified.xml and ENTSO-
E_Boundary_2012_2ndEdition_EU_TP_Modified.xml
The XML files have been manually merged.

Comment : The XML files were imported, not the a zip one.
We checked the data of one three winding transformer
The Load Flow results (10_16nodes_be+nl.lf) were compared to the CESI ones.
The observed differences are less than 5%.

Attached document with screenshots : Eurostag-test-10.docx

Date	Vendor		ENTSO-E	
13/07/2012	Name	Signature	Name	Signature
	Merckx C.		Ivanov C.	

[illegible]