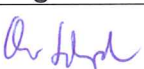
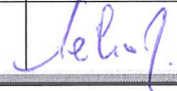

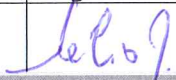
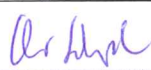
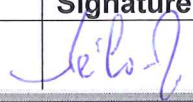
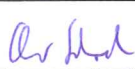

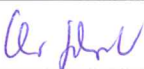
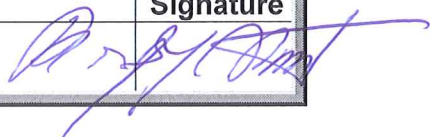



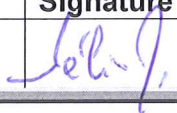
Test No: 3_3	Profile edition No: 2	Tool: PowerFactory 14.1	Score: 4
Test files:			
Import			Export
Profile_Edition_2\Boundary MAS\6_28June2011ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip			
Siemens\2nd_profile\Test2\Run2\ENTSOE_2_NL_OD_11J11h.zip			
Comments/Results/Issues:			
<p>Imported files created by Siemens ODMS without errors; Loadflow successfully calculated;</p> <p>A snapshot was made (ldfresults_NL.png) of the machines values.</p> <p>These results were compared with the results obtained by ODMS Siemens (ODMS_S1_NL_Loadflow.pdf) and the difference was less than 2MW and 1MVar (*).</p> <p>(*) PowerFactory results are much closer to the results published in the 2010 IOP</p>			
Supplementary files:			
..\test03\ODMS\ldfresults_NL.png ..\test03\ODMS\ODMS_S1_NL_Loadflow.pdf			
Date	Vendor	Signature	Test witness
12/jul/2011	Name Christoph Schmid DiSILENT	Signature 	Name Nélio Machado REN
			Signature 

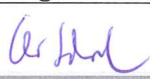
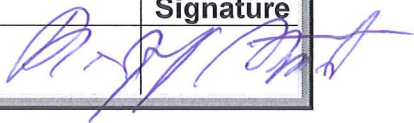
Test No: 3_4	Profile edition No: 2	Tool: PowerFactory 14.1	Score: 4	
Test files:				
Import			Export	
Profile_Edition_2\Boundary MAS\6_28June2011ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip				
Open Grid Systems\2nd_profile\Test2\ENTSOE_16_BE_OGS_12J13h.zip				
Comments/Results/Issues:				
<p>Imported files created by OGS without errors; Loadflow successfully calculated;</p> <p>A snapshot was made (ldfresults_BE.png) of the machines values.</p> <p>These results were compared with the results obtained by OGS (OGS_Profile2LoadFlow.png) and the difference was less than 0.5MW and 2MVar (*).</p> <p>(*) PowerFactory results are closer to the results published in the 2010 IOP</p>				
Supplementary files:				
..\test03\OGS\ldfresults_BE.png ..\test03\OGS\OGS_Profile2LoadFlow.png				
Date	Vendor		Test witness	
	Name	Signature	Name	Signature
12/jul/2011	Christoph Schmid DISILENT		Nélio Machado REN	



Test No: 4	Profile edition No: 2	Tool: PowerFactory 14.1	Score: 4
Test files:			
Import		Export	
Profile_Edition_2\Boundary MAS\6_28June2011ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_E U.zip		ENTSO-E_2 nd _IOP_Jul2011\DigSilent\ 2nd_profile\test04\ENTSO- E_16_PF_13J09h_NL.zip	
Profile_Edition_2\ENTSO- E_16\12_11July2011\ENTSOE_16_NL.zip			
Comments/Results/Issues:			
<p>Import without errors; Loadflow successfully calculated; Topology change: Opened B1 busbar coupler Loadflow successfully calculated; Checked the results and are coherent; Snapshot with the new results: ldfresults_NL.png</p> <p>Exported TP and SV files and stored on file server.</p> <p>Validation successfully done on CimSpy on SV and TP files. Snapshot of the validation: Validation_SV.png</p>			
Supplementary files:			
.\test04\ldfresults_NL.png .\test04\ Validation_SV.png			
Date	Vendor	Test witness	
	Name	Signature	Name
12/jul/2011	Christoph Schmid DiSILENT		Nélio Machado REN
			


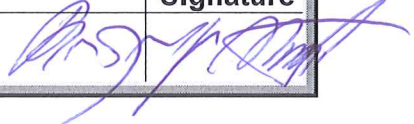
Test No: 5	Profile edition No: 2	Tool: PowerFactory 14.1	Score: 4
Test files:			
Import		Export	
Profile_Edition_2\Boundary MAS\6_28June2011\ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_E U.zip Profile_Edition_2\ENTSO- E_16\12_11July2011\ENTSOE_16_NL.zip		ENTSO-E_2 nd _IOP_Jul2011\DigSilent\ 2nd_profile\test04\ENTSO- E_16_Pf_13J09h_NL.zip	
Comments/Results/Issues:			
<p>Import without errors; Change load "Tennet 1" from 10 to 20MW and 10 to 20MVAR Change generation on "W1" from 140 to 145MW (PV) The generation on the slack (G1) was 597.4MW Running the loadflow the generation on the slack (G1) is now 602.5MW, which is coherent. Snapshot of the validation: ldfresults_NL.png</p> <p>Exported SV file and stored on file server.</p> <p>Validation successfully done on CimSpy on SV file. Snapshot of the validation: Validation_SV.png</p>			
Supplementary files:			
.\test05\ldfresults_NL.png .\test05\Validation_SV.png			
Date	Vendor	Test witness	
	Name	Signature	Name
12/jul/2011	Christoph Schmid DISILENT		Nélio Machado REN
			

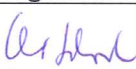
Test No: 6	Profile edition No: 2	Tool: PowerFactory 14.1	Score: 4
Test files:			
Import		Export	
Profile_Edition_2\Boundary MAS\6_28June2011\ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_E U.zip Profile_Edition_2\ENTSO- E_16\12_11July2011\ENTSOE_16_NL.zip Siemens\2nd_Profile\Test4\Run3\ENTSOE_16_N L_OD_13J15h.zip			
Comments/Results/Issues:			
<p>Loaded Boundary, EQ, SV and TP of the NL zip file and zip Boundary file (official models). Then loaded TP and SV from SIEMENS PTI - ODMS (Test No4 – zip file) which opens breaker B1.</p> <p>After load flow calculation checked the values to the snapshot (ODMS_S1_NL_Loadflow_after.pdf) obtained by ODMS Siemens and they are coherent.</p>			
Supplementary files:			
.\test06\ldfresults_NL.png .\test06\ODMS_S1_NL_Loadflow_after.pdf			
Date	Vendor	Signature	Test witness
14/jul/2011	Name Christoph Schmid DISILENT	Signature 	Name Vladimir Milić EMS
			Signature 

Test No: 7	Profile edition No: 2	Tool: PowerFactory 14.1	Score: 4
Test files:			
Import		Export	
Profile_Edition_2\Boundary MAS\6_28June2011ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_E U.zip Profile_Edition_2\ENTSO- E_16\12_11July2011\ENTSOE_16_BE.zip Siemens\2nd_Profile\Test5\Run1\ENTSOE_2_B E_OD_12J09h.zip			
Comments/Results/Issues:			
<p>Loaded Boundary, EQ, SV and TP of the BE zip file. After loadflow calculation a snapshot with results was made: ldfresults_BE.png</p> <p>Loaded SV from ODMS SIEMENS with success.</p> <p>Checked the changes:</p> <ul style="list-style-type: none"> - Load L1 from 200 to 206MW - Gen G1 from 90 to 96MW <p>After loadflow calculation checked the values to the snapshot (ODMS_Loadflow_afterchanges.pdf) obtained by ODMS Siemens and they are coherent.</p>			
Supplementary files:			
.\test07\ldfresults_BE.png .\test07\ODMS_Loadflow_afterchanges.pdf			
Date	Vendor	Signature	Test witness
12/jul/2011	Name Christoph Schmid DISILENT	Signature 	Name Nélío Machado REN
			Signature 

Test No: 8_1	Profile edition No: 2	Tool: PowerFactory 14.1	Score: 4
Test files:			
Import		Export	
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\5_Official_Test_Models\Profile_Edition_2\IEC60909-4\IEC60909-4_14J10h.zip			
Comments/Results/Issues:			
<p>Loaded official zip file without errors.</p> <p>Short-circuit calculation – three phase short-circuit and single phase short-circuit, according to IEC 60909-4 (first edition 2000-07)</p> <p>It was chosen to do comparison with official IEC results (IEC 60909-4 chapter 6.3)</p> <p>The results of the short-circuit calculation are completely coherent with IEC results.</p> <p>The comparison was done with FGH for three phase short-circuit calculation and results are completely the same. The results for line-to-earth short-circuit currents are very close each other.</p>			
Supplementary files:			
.\test08\3Phase_Results_according_to_IEC_Standard.doc .\test08\LineToEarth_Results_according_to_IEC_Standard.doc .\test08\CIMSpyValidation_EQ.png .\test08\CIMSpyValidation_TP.png			
Date	Vendor	Signature	Test witness
14/jul/2011	Christoph Schmid DIgSILENT		Name Vladimir Milić EMS 

Test No: 8_2	Profile edition No: 2	Tool: PowerFactory 14.1	Score: 4
Test files:			
Import		Export	
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\FGH\2nd_Profile\Test-8_14J (Import DlgSILENT)\IEC60909_IN_14J1430h			
Comments/Results/Issues:			
<p>Loaded exported zip file from FGH.</p> <p>Short-circuit calculation – three phase short-circuit and single phase short-circuit were done.</p> <p>The comparison of results of the three phase short-circuit calculation are completely coherent with results in previous test 8-1.</p>			
Supplementary files:			
.\test08\FDH\3Phase_Results_FGH_Import.jpg .\test08\FDH\LineToEarth_Results_FGH_Import.jpg			
Date	Vendor	Test witness	
	Name	Signature	Name
14/jul/2011	Christoph Schmid DlgSILENT		Vladimir Milić EMS
			

Test No: 9	Profile edition No: 2	Tool: PowerFactory 14.1	Score: 3																
Test files:																			
Import		Export																	
Profile_Edition_2\Boundary MAS\6_28June2011\ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_EU.zip Profile_Edition_2\ENTSO- E_16\12_11July2011\ENTSOE_16_NL.zip Profile_Edition_2\ENTSO-E_16\12_11July2011\ ENTSOE_16_BE.zip																			
Comments/Results/Issues:																			
<p>All files are successfully imported and assembled (zip MAS files and Boundary file). Loadflow successfully calculated. Assembled files are exported successfully. Exported files were checked in CIMDesk with following report after validating:</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Class</th> <th>Recurrence</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Error</td> <td>Name</td> <td>232/2410</td> <td>Missing required Attribute Name.name.</td> </tr> <tr> <td>Error</td> <td>Breaker</td> <td>2/2</td> <td>Association Equipment.EquipmentContainer is set to the wrong type: cim:Substation, expecting one of the following types [VoltageLevel, Bay].</td> </tr> <tr> <td>Error</td> <td>TopologicalNode</td> <td>1/483</td> <td>The names of ConductingEquipments connected to this TopologicalNode are not unique.</td> </tr> </tbody> </table> <p>These errors need to be fixed in PF CIM exporter.</p> <p>ODMS file from Test 4 are loaded successful. Breaker B1 is then open after import and P/Q on machine N1 and W1 has been updated successfully. Loadflow run successfully.</p>				Type	Class	Recurrence	Description	Error	Name	232/2410	Missing required Attribute Name.name.	Error	Breaker	2/2	Association Equipment.EquipmentContainer is set to the wrong type: cim:Substation, expecting one of the following types [VoltageLevel, Bay].	Error	TopologicalNode	1/483	The names of ConductingEquipments connected to this TopologicalNode are not unique.
Type	Class	Recurrence	Description																
Error	Name	232/2410	Missing required Attribute Name.name.																
Error	Breaker	2/2	Association Equipment.EquipmentContainer is set to the wrong type: cim:Substation, expecting one of the following types [VoltageLevel, Bay].																
Error	TopologicalNode	1/483	The names of ConductingEquipments connected to this TopologicalNode are not unique.																
Supplementary files:																			
.. DlgSILENT\2nd_Profile\Test09\ldfresults_sym_original.jpg .. DlgSILENT\2nd_Profile\Test09\ldfresults_tr2_original.jpg .. DlgSILENT\2nd_Profile\Test09\ldfresults_tr3_original.jpg .. DlgSILENT\2nd_Profile\Test09\ldfresults_sym_solution2.jpg																			
Date	Vendor	Test witness																	
	Name	Signature	Name																
14/jul/2011	Christoph Schmid DlgSILENT		Vladimir Milić EMS 																

Test No: 10	Profile edition No: 2	Tool: PowerFactory 14.1	Score: 4
Test files:			
Import		Export	
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\Siemens\2nd_Profile\Test9\Run1\ENTSOE_2_S1_OD_14J16h			
Comments/Results/Issues:			
Loaded exported zip file from SIEMENS PTI.			
The results from DlgSILENT PowerFactory are compared with SIEMENS PTI load flow (New Worldview.pdf) and they are very close.			
Supplementary files:			
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\Siemens\New Worldview.pdf			
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\DlgSILENT\2nd_Profile\Test10\ldf_results			
Date	Vendor	Signature	Test witness
	Name	Name	Signature
14/jul/2011	Christoph Schmid DlgSILENT		Vladimir Milić EMS 