

## SINGLE TEST RECORD FORM

<b>Test No:</b> 03_1	<b>Profile edition No:</b> 1	<b>Tool:</b> CRESO v6.3.0	<b>Score:</b> 4
<b>Test files:</b>			
<b>Import:</b>		<b>Export</b>	
ENTSO-E16_SP_12J11h_NL_EQ.xml ENTSO-E16_SP_12J11h_NL_SV.xml ENTSO-E16_SP_12J11h_NL_TP.xml ENTSO-E_Boundary_Set_4_May_2011_EU_EQ ENTSO-E_Boundary_Set_4_May_2011_EU_TP.xml			
<b>Comments/Results/Issues:</b>			
<p>CRESO imported the three CIM files of NL MAS previously exported by SPIRA and calculated power flow. The comparison of power flow results between CRESO and SPIRA is inside engineering tolerance of 5%.</p> <p>You can see the comparison between the electrical quantities in the Amsterdam substation in the supplementary files.</p> <p>It is possible to check all the power flow results in the file Creso_output.txt.</p>			
<b>Supplementary files:</b>			
Creso_schema.pdf Creso_data_summary.pdf SPIRA_test_01_1_annex.docx Creso_output.txt			
<b>Date</b>	<b>Vendor</b>	<b>Signature</b>	<b>Test witness</b>
12.07.2011	<b>Name</b>	<b>Name</b>	<b>Signature</b>
	Roberto Zacheo	Luca Gorello	

## SINGLE TEST RECORD FORM

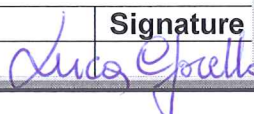
<b>Test No: 04_1</b>	<b>Profile edition No: 1</b>	<b>Tool: CRESO v6.3.0</b>	<b>Score: 4</b>
<b>Test files:</b>			
<b>Import:</b>		<b>Export</b>	
ENTSO-E16nodes_part_NL_v11July_EQ.xml ENTSO-E16nodes_part_NL_v11July_TP.xml ENTSO-E16nodes_part_NL_v11July_SV.xml ENTSO-E_Boundary_Set_4_May_2011_EU_EQ.xml ENTSO-E_Boundary_Set_4_May_2011_EU_TP.xml		ENTSO-E_16_CR_12J15h_NL_TP.xml ENTSO-E_16_CR_12J15h_NL_SV.xml .	
<b>Comments/Results/Issues:</b>			
<p>The following topology changes are made:</p> <ul style="list-style-type: none"> <li>• Change status of Breaker Tras49C3 between "SBARRA 0B" and "SBARRA E4" from Close to Open</li> <li>• Change status of Breaker Tras 2436 between "SBARRA 6F" and "SBARRA 28" from Open to Close</li> </ul> <p>Exported files have been checked successfully with CIMSpy.</p> <p>The Naming Convention was respected.</p>			
<b>Supplementary files:</b>			
Creso_schema.pdf Creso_data_summary_test_04_1.pdf			
<b>Date</b>	<b>Vendor</b>	<b>Signature</b>	<b>Test witness</b>
12.07.2011	<b>Name</b>	<b>Name</b>	<b>Signature</b>
	Roberto Zacheo	Luca Gorello	

## SINGLE TEST RECORD FORM


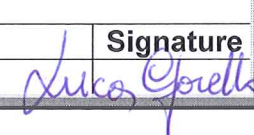
<b>Test No: 05_1</b>	<b>Profile edition No: 1</b>	<b>Tool: CRESO v6.3.0</b>	<b>Score: 4</b>
<b>Test files:</b>			
<b>Import:</b>		<b>Export</b>	
ENTSO-E16nodes_part_NL_v11July_EQ.xml ENTSO-E16nodes_part_NL_v11July_TP.xml ENTSO-E16nodes_part_NL_v11July_SV.xml ENTSO-E_Boundary_Set_4_May_2011_EU_EQ.xml ENTSO-E_Boundary_Set_4_May_2011_EU_TP.xml		ENTSO-E_16_CR_12J16h_NL_SV.xml	
<b>Comments/Results/Issues:</b>			
<p>The following solution changes are made:</p> <p>Change of production of the unit "GTB" in Amsterdam power plant from 150 MW to 110 MW.</p> <p>Change of load "Line" in Amsterdam substation from 290 MW to 250 MW.</p> <p>Change of reference voltage of the generation unit "GI5" from 16.5 kV to 17 kV.</p> <p>Exported file has been checked successfully with CIMSpy. The result of CIMSpy check is reported in the screenshot.</p> <p>The Naming Convention was respected.</p>			
<b>Supplementary files:</b>			
Creso_schema.pdf Creso_data_summary.pdf CIMSpy_test_05_1.PNG			
<b>Date</b>	<b>Vendor</b>	<b>Test witness</b>	
12.07.2011	<b>Name</b>	<b>Signature</b>	<b>Signature</b>
	Roberto Zacheo	Luca Gorello	



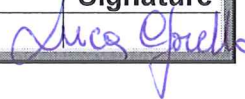
## SINGLE TEST RECORD FORM

<b>Test No: 06_1</b>	<b>Profile edition No: 1</b>	<b>Tool: CRESO v6.3.0</b>	<b>Score: 4</b>
<b>Test files:</b>			
<b>Import:</b>		<b>Export</b>	
ENTSO-E16nodes_part_NL_EQ.xml ENTSO-E16_SP_12J12h_NL_TP.xml ENTSO-E16_SP_12J12h_NL_SV.xml ENTSO-E_Boundary_Set_4_May_2011_EU_EQ.xml ENTSO-E_Boundary_Set_4_May_2011_EU_TP.xml		NA	
<b>Comments/Results/Issues:</b>			
<p>The following topology changes are made:</p> <ul style="list-style-type: none"> <li>• Change status of Breaker "Tras49C3" between "SBARRA 0B" and "SBARRA E4" from Close to Open</li> <li>• Change status of Breaker "Tras 2436" between "SBARRA 6F" and "SBARRA 28" from Open to Close</li> </ul> <p>The comparison of power flow results between the topology obtained by CRESO in the test 04_1 and the topology obtained in this test is inside engineering tolerance of 5%. You can see the comparison between the electrical quantities in the Amsterdam substation in the supplementary files.</p>			
<b>Supplementary files:</b>			
Creso_schema_test_04_1.pdf Creso_schema_test_06_1.pdf Creso_data_summary_test_04_1.pdf Creso_data_summary_test_06_1.pdf			
<b>Date</b>	<b>Vendor</b>	<b>Test witness</b>	
12.07.2011	<b>Name</b>	<b>Name</b>	<b>Signature</b>
	Roberto Zacheo	Luca Gorello	

## SINGLE TEST RECORD FORM


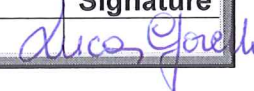
<b>Test No: 07_1</b>	<b>Profile edition No: 1</b>	<b>Tool: CRESO v6.3.0</b>	<b>Score: 4</b>
<b>Test files:</b>			
<b>Import:</b>		<b>Export</b>	
ENTSO-E16nodes_part_NL_EQ.xml ENTSO-E16nodes_part_NL_TP.xml ENTISOE_1_BE_OD_11J13h_SV.xml ENTSO-E_Boundary_Set_4_May_2011_EU_EQ.xml ENTSO-E_Boundary_Set_4_May_2011_EU_TP.xml		NA	
<b>Comments/Results/Issues:</b>			
<p>CRESO imported the SV file from PSS-ODMS and performed power flow calculation correctly.</p> <p>The differences between initial values of power flow of SV file and the results of power flow calculation are inside the tolerance (5%).</p>			
<b>Supplementary files:</b>			
Creso_Schema.pdf Creso_data_summary.pdf Siemens_Loadflow.PNG			
<b>Date</b>	<b>Vendor</b>	<b>Test witness</b>	
12.07.2011	<b>Name</b>	<b>Signature</b>	<b>Name</b>
	Roberto Zacheo		Luca Gorello
			

## SINGLE TEST RECORD FORM

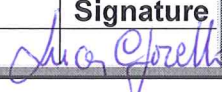
<b>Test No:</b> 08_1	<b>Profile edition No:</b> 1	<b>Tool:</b> CRESO v6.3.0	<b>Score:</b> 4
<b>Test files:</b>			
<b>Import:</b>		<b>Export</b>	
ENTSO-E16nodes_part_NL_v11July_EQ.xml ENTSO-E16nodes_part_NL_v11July_TP.xml ENTSO-E16nodes_part_NL_v11July_SV.xml ENTSO-E_Boundary_Set_4_May_2011_EU_EQ.xml ENTSO-E_Boundary_Set_4_May_2011_EU_TP.xml		NA	
<b>Comments/Results/Issues:</b>			
Short circuit calculations have been performed correctly.			
<b>Supplementary files:</b>			
report - Short circuit calculation.txt			
<b>Date</b>	<b>Vendor</b>	<b>Test witness</b>	
12.07.2011	<b>Name</b>	<b>Name</b>	<b>Signature</b>
	Roberto Zacheo	Luca Gorello	



## SINGLE TEST RECORD FORM

<b>Test No:</b> 09_1	<b>Profile edition No:</b> 1	<b>Tool:</b> CRESO v6.3.0	<b>Score:</b> 4
<b>Test files:</b>			
<b>Import:</b>		<b>Export</b>	
ENTSO-E_Boundary_Set_4_May_2011_EU_EQ.xml ENTSO-E_Boundary_Set_4_May_2011_EU_TP.xml ENTSO-E16nodes_part_BE_EQ.xml ENTSO-E16nodes_part_BE_SV.xml ENTSO-E16nodes_part_BE_TP.xml ENTSO-E16nodes_part_NL_EQ.xml ENTSO-E16nodes_part_NL_SV.xml ENTSO-E16nodes_part_NL_TP.xml ALL.zip ENTSO-E_16_CR_13J10h_NL_SV.xml ENTSO-E_16_CR_13J10h_NL_TP.xml		ENTSO-E_16_CR_12J12h_BE_EQ.xml ENTSO-E_16_CR_12J12h_BE_TP.xml ENTSO-E_16_CR_12J12h_NL_EQ.xml ENTSO-E_16_CR_12J12h_NL_TP.xml ENTSO-E_16_CR_12J13h_SV.xml ENTSO-E_16_CR_12J12h_BE.zip ENTSO-E_16_CR_12J12h_NL.zip	
<b>Comments/Results/Issues:</b>			
<p>The import / load flow / export have been executed correctly          The results of power flow are reported in the screenshots</p> <p>The topology changes made are the same of test 04:</p> <ul style="list-style-type: none"> <li>• Change status of Breaker Tras49C3 between "SBARRA 0B" and "SBARRA E4" from Close to Open</li> <li>• Change status of Breaker Tras 2436 between "SBARRA 6F" and "SBARRA 28" from Open to Close</li> </ul>			
<b>Supplementary files:</b>			
Screenshot files: Amsterdam.PNG; Amsterdam_Grafica.PNG; Bruxelles.PNG; Bruxelles_Grafica.PNG Creso_schema_import_TP_SV_Test4_NL.pdf Creso_schema_import_TP_SV_Test4_BE.pdf Creso_data_summary_import_TP_SV_TEST4_NL.pdf Creso_data_summary_import_TP_SV_TEST4_BE.pdf			
<b>Date</b>	<b>Vendor</b>	<b>Test witness</b>	
12.07.2011	<b>Name</b>	<b>Signature</b>	<b>Name</b>
	Roberto Zacheo		Luca Gorello
			

## SINGLE TEST RECORD FORM


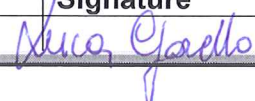
<b>Test No: 10_1</b>	<b>Profile edition No: 1</b>	<b>Tool: CRESO v6.3.0</b>	<b>Score: 4</b>
<b>Test files:</b>			
<b>Import:</b>		<b>Export</b>	
ENTSO-E16_SP_12J16h_BE_EQ.xml ENTSO-E16_SP_12J16h_BE_TP.xml ENTSO-E16_SP_12J16h_NL_EQ.xml ENTSO-E16_SP_12J16h_NL_SV.xml ENTSO-E16_SP_12J16h_NL_TP.xml ENTSO- E_Boundary_Set_4_May_2011_EU_EQ.xml ENTSO- E_Boundary_Set_4_May_2011_EU_TP.xml			
<b>Comments/Results/Issues:</b>			
<p>The import of the network produced in the test No. 9 by SPIRA has been executed correctly          The power flow has been executed correctly. The comparison with the results of power flow performed by SPIRA is in supplementary files.</p>			
<b>Supplementary files:</b>			
Creso_schema_NL.pdf Creso_schema_BE.pdf Creso_data_summary_NL.pdf Creso_data_summary_BE.pdf Test_09_1_Loadflowsolution2.pdf			
<b>Date</b>	<b>Vendor</b>	<b>Test witness</b>	
12.07.2011	<b>Name</b>	<b>Name</b>	<b>Signature</b>
	Roberto Zacheo	Luca Gorello	



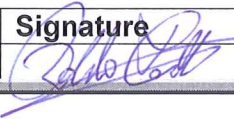
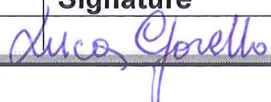
## TOOL SUMMARY FORM (PER TOOL)

[illegible]

## SINGLE TEST RECORD FORM


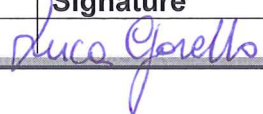
<b>Test No: 01_1</b>		<b>Profile edition No: 2</b>		<b>Tool: CRESO v6.3.0</b>		<b>Score: 4</b>	
<b>Test files:</b>							
<b>Import</b>				<b>Export</b>			
ENTSOE_16_NL_EQ.xml ENTSOE_16_NL_SV.xml ENTSOE_16_NL_TP.xml ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_EU_EQ.xml ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_EU_TP.xml							
<b>Comments/Results/Issues:</b>							
<p>CRESO imports all three files; the load flow is solved correctly</p> <p>The result of power flow for Amsterdam substation is reported in the screenshot</p>							
<b>Supplementary files:</b>							
Creso_Schema.pdf Creso_Data_Summary.pdf							
<b>Date</b>		<b>Vendor</b>		<b>Test witness</b>			
13.07.2011		<b>Name</b>		<b>Name</b>		<b>Signature</b>	
		Roberto Zacheo		Luca Gorello		 	

## SINGLE TEST RECORD FORM


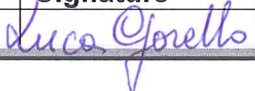
<b>Test No: 01_2</b>		<b>Profile edition No: 2</b>		<b>Tool: CRESO v6.3.0</b>		<b>Score: 4</b>	
<b>Test files:</b>							
<b>Import</b>				<b>Export</b>			
ENTSOE_16_BE_EQ.xml ENTSOE_16_BE_SV.xml ENTSOE_16_BE_TP.xml ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_EU_EQ.xml ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_EU_TP.xml							
<b>Comments/Results/Issues:</b>							
<p>CRESO imports all three files; the load flow is solved correctly</p> <p>The result of power flow for Amsterdam substation is reported in the screenshot</p>							
<b>Supplementary files:</b>							
Creso_Schema.pdf Creso_Data_Summary.pdf							
<b>Date</b>		<b>Vendor</b>		<b>Test witness</b>			
13.07.2011		<b>Name</b>		<b>Name</b>		<b>Signature</b>	
		Roberto Zacheo		Luca Gorello		 	



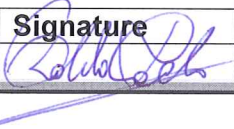
## SINGLE TEST RECORD FORM

<b>Test No: 03_1</b>		<b>Profile edition No: 2</b>		<b>Tool: CRESO v6.3.0</b>		<b>Score: 4</b>	
<b>Test files:</b>							
<b>Import:</b>				<b>Export</b>			
tennet.eu_NL_EQ.xml tennet.eu_NL_TP.xml ENTSO-E_16_Pf_12J11h_NL_SV.xml ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_EU_EQ.xml ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_EU_TP.xml							
<b>Comments/Results/Issues:</b>							
<p>CRESO imported the three CIM files of NL MAS previously exported by DIG Silent PF and calculated power flow. The comparison of power flow results between CRESO and DIG Silent PF is inside engineering tolerance of 5%.</p> <p>You can see the comparison between the electrical quantities in the Amsterdam substation in the supplementary files.</p> <p>It is possible to check all the power flow results in the file Creso_output.txt.</p>							
<b>Supplementary files:</b>							
Creso_Schema.pdf Creso_Data_Summary.pdf DIG_Silent_PF_Idfresults_NL.png Creso_output.txt							
<b>Date</b>		<b>Vendor</b>		<b>Test witness</b>			
13.07.2011		<b>Name</b>		<b>Name</b>		<b>Signature</b>	
		Roberto Zacheo		Luca Gorello		 	

## SINGLE TEST RECORD FORM

<b>Test No:</b> 06_1	<b>Profile edition No:</b> 2	<b>Tool:</b> CRESO v6.3.0	<b>Score:</b> 4
<b>Test files:</b>			
<b>Import:</b>		<b>Export</b>	
ENTSOE_16_NL_EQ.xml ENTSO-E_16_PF_13J09h_NL_SV.xml tennet.eu_NL_TP.xml ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_EU_E Q.xml ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_EU_T P.xml			
<b>Comments/Results/Issues:</b>			
<p>The following topology changes are made:</p> <ul style="list-style-type: none"> <li>Change status of Breaker "Tras49C3" between "SBARRA 0B" and "SBARRA E4" from Close to Open</li> </ul> <p>The comparison of power flow results between the topology obtained by DIG Silent PF in the test 04_1 and the topology obtained in this test is inside engineering tolerance of 5%. You can see the comparison between the electrical quantities in the Amsterdam substation in the supplementary files.</p>			
<b>Supplementary files:</b>			
Creso_schema.pdf Creso_data_summary.pdf DIG_Silent_PF_Idfresults_NL.png			
<b>Date</b>	<b>Vendor</b>	<b>Test witness</b>	
14.07.2011	<b>Name</b>	<b>Signature</b>	<b>Name</b>
	Roberto Zacheo		Luca Gorello 

## SINGLE TEST RECORD FORM

<b>Test No:</b> 07_1	<b>Profile edition No:</b> 2	<b>Tool:</b> CRESO v6.3.0	<b>Score:</b> 4
<b>Test files:</b>			
<b>Import:</b>		<b>Export</b>	
ENTSOE_16_NL_EQ.xml ENTSOE_16_NL_TP.xml ENTSO-E_16_PF_13J09h_NL_SV.xml ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_EU_EQ.xml ENTSO- E_Boundary_Set_28_June_2011_2ndEdition_EU_TP.xml			
<b>Comments/Results/Issues:</b>			
<p>CRESO imported the SV file from DIG Silent PF and performed power flow calculation correctly.</p> <p>The differences between initial values of power flow of SV file and the results of power flow calculation are inside the tolerance (5%).</p>			
<b>Supplementary files:</b>			
Creso_schema.pdf Creso_data_summary.pdf DIG_Silent_PF_Idfresults_NL.png			
<b>Date</b>	<b>Vendor</b>	<b>Test witness</b>	
14.07.2011	<b>Name</b>	<b>Signature</b>	<b>Name</b> <b>Signature</b>
	Roberto Zacheo		Luca Gorello 