System Test Report

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Project: Websockets in a LwIP HTTP Server

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1. **Scope**

The STP (System Test Report) documents the actual results of the tests specified in the STP (System Test Plan)

2. **Abbreviations**

- TC Testcase
- TS Testsuite
- GUI Graphical User Interface
- API Application Programming Interface

3. **Test Objects**

The following test objects must be verified:

RefId.	Product Number	Product Name	Product Description
1			An implementation of Websockets and an AP
1		Lwip HTTP Server	in LwIP

4. **Test Equipment**

The following equipment must be available for testing:

- A computer with Windows 10
- A functioning and correctly configured Installation of LwIP (For tests after TC-001-001 / 002)

References 5.

[1] SRS TINF20C Websockets with LwIP

6. **Testcases**

Testsuite <TS-001 WebSocket with its Testclient> 1.1

1.1.1 <TC-001-001> (Choose the correct network adapter)

Testcase ID			TC-001-001			
Testcase Name Choose the			Choose the	correct network adapter		
ReqII)		LF10			
Descri	ption		This test ca network ad	se verifies that lwIP starts corre apter.	ctly after choosing the correct	
Test St	eps					
Step	Action			Expected Result	Actual Result	
1	Run lwIP.	exe		Application starts without problems.	Application starts without problems.	
2	Insert the correct number of your network adapter			LwIP accepts the Input and runs correctly	LwIP accepts the Input and runs correctly	
Tester Yann		nis Plaschko				
Date 05.05.		5.2022				
Testcase Result Pass			·			
	<u>'</u>					

1.1.2 <TC-001-002> (Choose the wrong network adapter)

Testcase ID			TC-001-002				
Testcase Name Choose				pose the wrong network adapter			
ReqII)		LF20				
Descri	ption		This test cas	se verifies that lwIP fails noisy a	fter choosing a wrong network		
			adapter.				
Test St	:eps						
Step	Action			Expected Result	Actual Result		
1	Run lwIP.e	exe		Application starts without	Application starts without		
				problems.	problems.		
2	Insert a	wron	O	A Pop-Up with an error mes-	A Pop-Up with an error mes-		
	which doe	s not	belong to a	sage should appear and the	sage should appear and the		
	network a	dapte	٢	lwIP window will print an er-	lwIP window will print an er-		
				ror	ror		
Tester Yannis		is Plaschko					
Date 05.05		5.2022					
Testca	Testcase Result Pass						



1.1.3 <TC-001-003> (Connect to the Websocket)

Testcase ID		TC-001-003						
Testcase Name Conn			Connect to	Connect to the WebSocket				
ReqII	D		LF30					
Descri	ption		This test ca Socket.	This test case verifies that the Testclient is able to connect to the Web-Socket.				
Test St	teps							
Step	Action			Expected Re	sult		Actual Result	
1	Open the	Open the Testclient			starts	without	Since there is no Testclient it cant be started	
2	Select "(point	Conne	ct" Menu	A Pop-Up w dow should		nput win-	-	
3	Input the IP of the Web- Socket and click on "con- nect"			The GUI sho nection Esta play a messa	blished'	' and dis-	-	
Tester Yanni		is Plaschko						
Date	Date 05.05.2022		5.2022					
Testca	Testcase Result Fail							

1.1.4 <TC-001-004> (Message the Server)

Testcase ID		TC-001-004					
Testcase Name Mes			Message th	Message the Server			
ReqII	D		LF30, LF40				
Descri	ption		This test cas	se verifies that a	a messa	age sent to	the server will be echoed back
			by it.				
Test St	teps						
Step	Action			Expected Resu	ult		Actual Result
1	Connect t	he Tes	stclient to a	Application	starts	without	Since there is no Testclient it
	running W	/ebSoc	ket	problems.			can't be started
2	Select "	Conne	ct" Menu	A Pop-Up with an input win-		put win-	-
	point			dow should a	ppear		
Tester	Tester Yann		is Plaschko	·			·
Date 05.05		5.2022					
Testcase Result Fail				_			

1.1.5 <TC-001-005> (Disconnect from WebSocket)

Testcase ID			TC-001-005				
Testca	se Name		Disconnect	Disconnect from WebSocket			
ReqII	D		LF30, LF40,	LF50			
Descri	ption		This test ca	se verifies that the Testclient c	an destroy an existing connec-		
			tion.				
Test St	teps						
Step	Action			Expected Result	Actual Result		
1	Connect t	he Tes	stclient to a	Application starts without	Since there is no Testclient it		
	running W	/ebSoc	ket	problems.	can't be started		
2	Click on	the "I	Disconnect"	The Testclient disconnects	-		
	button			from the WebSocket and			
				shows the message "Success-			
				fully disconnected"			
Tester Yannis		is Plaschko					
Date	Date 05.05		5.2022				
Testcase Result Fail							

6.1. Testsuite <TS-002 API>

1.1.6 <TC-002-001> (Call API Root)

Testca	se ID	TC-002-001					
Testca	se Name	Call API Roo	Call API Root				
ReqII	D	LF60					
Descri	ption	This test ca	se verifies that calling the Root E	ndpoint returns a sample web-			
		site.					
Test St	teps						
Step	Action		Expected Result	Actual Result			
1	Run the L	wIP HttpServer	Application starts without	Application starts without			
			problems.	problems.			
2	Open the	Browser and type	A Site should become visible	A Site becomes visible with			
	the IP of	the Server in the	with the Headline "LwIP Test	the Headline "LwIP Test Ap-			
	Search ba	r and hit enter	Application", a Text block and	plication", a Text block and a			
			a link to "/identification"	link to "/identification"			
Tester Yann		Yannis Plaschko					
Date 05.05		05.05.2022					
Testca	se Result	Pass					

1.1.7 <TC-002-002> (Call API /something)

Testca	se ID	TC-002-002	TC-002-002				
Testca	se Name	Call API /sc	mething				
ReqII	D	LF70					
Descri	ption	This test ca	se verifies that calling a not exist	ting endpoint results in the dis-			
		play of an e	error message.				
Test St	teps						
Step	Action		Expected Result	Actual Result			
1	Run the L	wIP HttpServer	Application starts without	Application starts without			
			problems.	problems.			
2	Open the	Browser and type	The Browser should display	The Browser displays a error			
	the IP of	the Server in the	an error Message depending	Message			
	Search b	ar plus "/some-	on the used Browser.				
	thing" and	l hit enter					
Tester Yan		Yannis Plaschko					
Date 05.05.2		05.05.2022					
Testcase Result Pass		Pass					

1.1.8 <TC-002-003> (Call API /identification directly)

Testca	se ID		TC-002-003					
Testca	se Name		Call API /ide	entification directly				
ReqII	D		LF80					
Descri	ption		This test cas	se verifies whether a direct call	displays information about the			
			Server.					
Test St	teps							
Step	Action			Expected Result	Actual Result			
1	Run the Lv	vIP Ht	tpServer	Application starts without	Application starts without			
				problems.	problems.			
2	Open the	Brows	er and type	The Browser should display	The Browser displays the in-			
	the IP of	the Se	erver in the	the information about the	formation about the server in			
	Search bai	r plus '	'/identifica-	server in JSON.	JSON.			
	tion" and	hit ent	er					
Tester	Tester Yannis Plasch		is Plaschko					
Date	Date 05.05.2022		5.2022					
Testca	Testcase Result Pass							

1.1.9 <TC-002-004> (Call API /identification from root)

Testcase ID		TC-002-004	,			
Testcase Name			Call API /identification from root			
ReqII	D		LF60, LF90			
Descri	ption		This test ca	se verifies whether a click on th	ne link redirects to displays in-	
			formation a	bout the Server.		
Test St	teps					
Step	Action			Expected Result	Actual Result	
1	Run the Lv	vIP Ht	tpServer	Application starts without problems.	Application starts without problems.	
	Open the	Brows	er and type	A Site should become visible	A Site becomes visible with	
	the IP of	the Se	erver in the	with the Headline "LwIP Test	the Headline "LwIP Test Ap-	
	Search and	d hit e	nter	Application", a Text block and	plication", a Text block and a	
				a link to "/identification"	link to "/identification"	
	Click on th	e Link		The Browser should display	The Browser displays the in-	
				the information about the	formation about the server in	
				server in JSON.	JSON.	
Tester Yann		is Plaschko				
Date 05.05.		5.2022				
Testca	se Result	Pass				