

Test Suite 539

System integration test document !

As Of

20.03.2016 18:25:04 CET

Current User:	veckardt
User Full Name:	Volker Eckardt (PTC)
User Description:	This user is the standard Integrity user
User e-Mail:	veckardt@ptc.com
Generation Date:	20.03.2016 18:25:04 CET
Suite State:	Open
Suite ID:	539

Contents

1	Introduction	3
2	Summary	3
2.1	Suite Details	3
2.2	Test Metrics	3
3	Test Cases and Last Results	3
3.1	Pre Condition	3
3.2	Test Cases Group 1	4
3.3	Test Cases Group 2	5
3.3.1	Test Steps - Ebene 2	7
3.4	Test Steps 3	7
3.5	Pre 2	9
4	Test Sessions	10
4.1	Session 623	10
4.2	Session 637	10
4.3	Session 1159	10
4.4	Session 5760	11
5	Defects	11
6	Signatures	12



1 Introduction

This Test Suite should be approved before protocol execution. A copy of the unexecuted protocol should be kept in the validation package. The unexecuted protocol should be approved by the System Owner and Quality Assurance. The executed protocol should be signed by the tester and reviewed by the system owner and Quality.



2 Summary

2.1 Suite Details

ID:	539
State:	Open
Responsible:	business_analyst

2.2 Test Metrics

Test Cases

Planned:	21	
Executed:	18 (86 %)	
- Passed:	13	
- Failed:	5	
Skipped:	2	
Not Run:	1	

Defects

Total:	3	
Pending:	1	
Open:	2	
Closed:	0	



3 Test Cases and Last Results

Abbreviations: D = Defect, R = Requirement, S = Specification, TC = Test Case, TS = Test Step

ID	Description	Result
	Expected Result	Trace IDs
	Session ID	Result Date



3.1 Pre Condition









3.2 Test Cases Group 1

TC-544	Connect watch using USB connection. Connect it to a Windows run PC and a Unix based PC to test time synchronization. Zusatz	Failed
	Verify test time data can be passed from watch to computer.	R-182, R-7885, R-7873, R-7871, R-862, R-21986, R-21987, R-21989, R-21991, R-21993
Session:	637 - Week 3 automated regression session	Feb 7, 2016 12:46:25 AM
Annotation:		
TS-19011		Not Tested
TS-19012		Not Tested
TS-19013		Not Tested
TS-19014		Not Tested
TS-19015		Not Tested
TS-19016		Not Tested
TS-19017		Not Tested
TS-19018		Not Tested
TC-546	Connect to PC through USB interface to check for auto detection on both Windows and Unix computers	Failed
	USB device has to be recognized and properly connected.	R-184, R-7877
Session:	1159 - SAG: Session 1 !	Mar 6, 2016 3:55:43 PM
Annotation:	Does not workd	
TS-19002	Set in both cab's the TCP in FSB dadsaasdassdads	Passed
TS-19004	In both M_CAR's any safety loop bypass, ATC Cut Out switch and obstacle detection bypass must be disabled	Passed
TS-19005	The system shall set the internal variable "Ass.Op.Mode Workshop RMF" (\$BMWSF) = LOW	Passed
TS-19006	The knife switch in both cab's are in workshop position	Passed
TS-19007	Set the train in RMF mode (MSS in cab 1 is in RMF position)	Passed
TS-19008	The system shall set the internal variable "Ass. command direction 1" (\$BBRC1) = HIGH The system shall set the internal variable "Ass.Op.Mode Workshop RMF" (\$BMWSF) = HIGH System shall set the internal variable "Ass. drive mode cut-out" (\$BMATCO) = L	Failed

TS-19009	The system shall set the internal variable "Ass. command direction 1" (\$BBRC1) = HIGH The system shall set the internal variable "Ass.Op.Mode Workshop RMF" (\$BMWSF) = HIGH System shall set the internal variable "Ass. drive mode cut-out" (\$BMATCO) = L	Failed
TC-14013	synchronization shall be done in 3.5 sec	Passed
	verify the duration	
Session:	1159 - SAG: Session 1 !	Dec 4, 2015 12:45:14 PM



3.3 Test Cases Group 2

TC-548	<p>During testing, the watch must be synchronized to a global time standard</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Rating Scales – Severity – System Function</p> <p>1  Minor System Malfunction</p> <p>2  System Malfunctions or Fails to Execute Some Functions but work-around exists</p> <p>3  Interruption in System Functionality Requiring operator intervention</p> <p>4  Interruption in System Functionality Requiring contractor intervention</p> <p>5  Severely Constrained System Functionality—difficult work-arounds needed</p> <p>6  No functionality is available and task cannot be performed by any method.</p> <p>N/A</p> </div>	Failed
	Verify that watch time is synched to GMT.	R-7876
Session:	5760 - NEW Session with Group	Feb 13, 2016 4:40:43 PM
Annotation:		
TS-1157	Step 1	Not Tested
	<p><u>Setup</u></p> <p><u>Test Procedure</u></p> <p><u>Expected Results</u></p>	
TS-18725	Summary	Not Tested
	<p><u>Setup</u></p> <p><u>Test Procedure</u></p> <p><u>Expected Results</u></p>	
TS-13809	Step 2 Schreiben	Not Tested
	<p><u>Setup</u></p>	

	<u>Test Procedure</u> <u>Expected Results</u>	
TS-18726	Summary	Not Tested
	<u>Setup</u> <u>Test Procedure</u> <u>Expected Results</u>	
TS-13812	Neu	Not Tested
	<u>Setup</u> <u>Test Procedure</u> <u>Expected Results</u>	
TC-542	Test watch at simulated water depth of 120m to ensure safety statement is valid. Also expose watch to high impact waterb penetrations in order to make sure watch the face does not crack or break.	Failed
	face does not crack or break. No visibile moisture inside crystal.	R-18590
Session:	623 - Week 1 automated regression session !	Apr 2, 2015 2:20:24 PM
Annotation:		
TS-573	Stop the Chronometer	Passed
	Navigate to Chronometer mode, ensure the Chronometer is incrementing upwards, press the Stop button. The Chronometer should stop to the nearest {{p_chronometer_response}} .	
TS-10572	Neuer Step mein eigener	Failed
	<u>Setup</u> <u>Test Procedure</u> <u>Expected Results</u>	
TS-13808	step 7	Passed
	<u>Setup</u> <u>Test Procedure</u> <u>Expected Results</u>	
TC-18648	Post Condition #2	
Session:	-	
Annotation:		

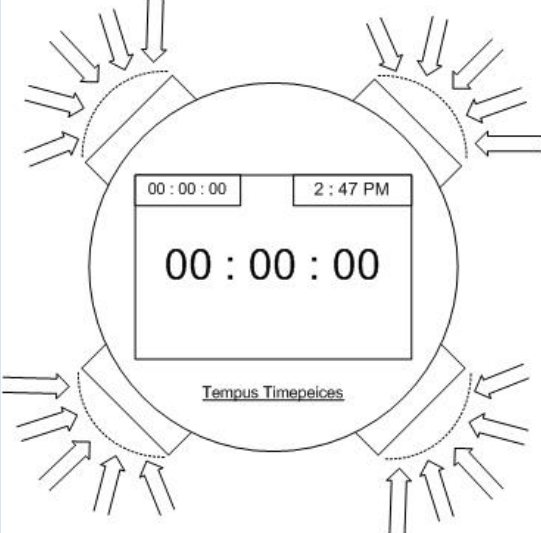
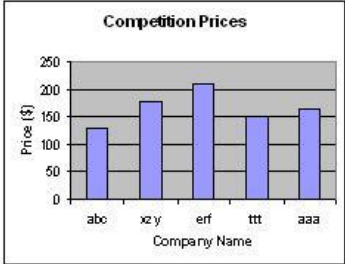
3.3.1 Test Steps - Ebene 2

TC-570	On every screen that has an edit mode, enter edit mode and increase/decrease every editable field to a different value of the previous iteration of this test. Repeat this test a total of ten times on every screen.	Passed
	Verify that randomized edit mode test completed successfully.	S-510, S-528, R-13829, 19186
Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:56 PM
TC-574	Run the chronometer in five second intervals for ten intervals total, stopping and starting at the end of every interval. On every third interval, reset the chronometer and on the last interval, let the chronometer run until it loops back to 00:00:00.00.	Passed
	Verify that lap counter test completes successfully.	R-418, S-512, R-13829
Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:56 PM
TS-572	Start the Chronometer	
	Navigate to Chronometer mode, ensure the Chronometer display reads 00:00:00, press the Start button. The Chronometer should increment by {{p_chronometer_increment}} .	
TS-573	Stop the Chronometer	
	Navigate to Chronometer mode, ensure the Chronometer is incrementing upwards, press the Stop button. The Chronometer should stop to the nearest {{p_chronometer_response}} .	
TC-576	Enter the edit mode of the timer and set it for 23:24 to allow for multiple button presses. Run the timer for five minutes and the reset it to 13:20 by first going passed the desired values for both hours and minutes and forcing the system to loop back to 00:00. From there, set the time properly to 13:20 and run the timer for the full duration.	Passed
	Verify timer counter test completes successfully.	S-514, R-418
Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:56 PM
TC-550	Synchronize watch to a reliable clock service, such as a satellite clock, and run it continuously for 3 months. Check back against the satellite clock to see if error is within 3 seconds.	Passed
	Verify long term accuracy test completed successfully.	R-180, R-416
Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:54 PM



3.4 Test Steps 3

TC-552	<i>Port is mounted on the inner-facing side of the wristwatch.</i>	Passed
	Verify port mount position.	R-186, R-416
Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:54 PM
TC-554	Connect the beeper to a 1.5v power supply (to be the same as what the watch itself will run on) and callibrate it to produce sound at 40Hz . Run the beeper for both half-second intervals and short 1/5 of a second intervals. Perform this test 500 times on the beeper.	Passed
	Verify beeper calibration completed successfully.	R-190
Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:55 PM

TC-556	<p>After the push button mechanism has been fabricated, push the external button 10 times per degree in a 70-degree arc around the exterior button. This mechanism should have no more than a 5% failure rate to become a production piece. The following diagram will help explain the test procedure for this component:</p> 	Passed
Verify robotic push button test automation completed successfully.		S-460, R-1509
Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:55 PM
TS-12982		Not Tested
	<p><u>Setup</u></p>  <p><u>Test Procedure</u></p> <p><u>Expected Results</u></p>	
TC-558	Connect the LED to a 3.3v power supply and measure the intensity of the light given off. In order to properly light the watch frame in darker conditions, the LED much give off a minimum of 10 lumens .	Failed
Verify LED calibration completed successfully.		S-466, R-198
Session:	623 - Week 1 automated regression session !	Apr 2, 2015 2:22:03 PM
Annotation:		
TS-18642	A new Test Step 3.3v	Not Tested
TC-560	Assemble the watch on a bread board and connect the entire circuit to a 315 Silver Oxide Button Cell Battery to test that the battery can indeed power the entire circuit even in the worst case scenario.	Passed
Verify minimum battery power test completed successfully.		R-200, S-468, 19180, S-524

Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:55 PM
TC-562	Write to the embeded EEPROM a total of 5050 times to ensure no loss of data occurs. This is working under the assumption that the user will not modify the data in the watch (including the chronometer time and the timer time) more than 5050 times total.	Passed
	Verify EEPROM flash burn in test completed successfully.	R-13821, R-1522, S-450
Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:55 PM
TC-564	To test the functionality and reliability of the entire navigation system, tap the navigation button 50 times to achieve 10 complete cycles of all the screens in the watch.	Passed
	Verify navigation stress test completed successfully.	S-500, S-522, R-13821, 19183
Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:55 PM
TC-14005	tap the navigation button 50 times	Skipped
	finger issues	S-452
Session:	623 - Week 1 automated regression session !	Feb 17, 2015 1:59:31 PM
Annotation:		
TC-14007	some more tasks	Skipped
	again issues	
Session:	623 - Week 1 automated regression session !	Feb 17, 2015 1:59:35 PM
Annotation:		
TC-566	On all screens that have an edit mode, hold the navigation button for three seconds to enter the edit mode of that screen. While in the mode, cycle through every editable field of that screen three times to ensure that the system loops around properly. Then, hold the navigation button for three seconds to exit out of edit mode.	Passed
	Navigation system menus appear and loop properly.	S-502, R-13821, S-452, 19180, S-524
Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:56 PM
TC-568	Test the backlight by a) Tapping it. b) Holding it for 5 seconds. In (a), the backlight should remain on for 342 after the user depresses the backlight button. In (b), the backlight should remain alit while the user is holding down the backlight button as well as 342 after they depress the button. Therefore, the backlight should remain on for 342 in (a) and eight seconds in (b).	Passed
	Verify backlight remains on for 342 after tap.	R-182, R-13829
Session:	637 - Week 3 automated regression session	Nov 1, 2014 2:43:56 PM

3.5 Pre 2





4 Test Sessions

4.1 Session 623

Summary	Week 1 automated regression session !
Description	
State	Completed
Session Type	Automated
Tests As Of Date	4/11/15 5:21 PM
Build ID:	4.0.1
Test Environment:	

4.2 Session 637

Summary	Week 3 automated regression session	
Description		
State	Completed	
Session Type	Automated	
Tests As Of Date	6/25/15 12:32 PM	
Build ID:	110	
Test Environment:		
Phase des Test Use Cases	USE CASE	Erklärungen
		Verschiede Testebenen bzw. Testphasen werden in Integrity mittels Objectives abgebildet. Unsere angedachten Phasen sind: SW Component Test (Eigenentwicklertest - wird erst ab SIL 1 gefordert) SW Integration Test SW Laboratory Test
Testebenen	1. SW-Labortest	Prüfling: SW des ZSG und des HMI, Abgrenzung auf SW-Funktionen von ZSG und HMI; außerdem ASG und NAS

4.3 Session 1159

Summary	SAG: Session 1 !
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Description	
State	Completed
Session Type	Manual
Tests As Of Date	5/6/15 9:49 AM
Build ID:	
Test Environment:	

4.4 Session 5760

Summary	NEW Session with Group
Description	
State	Completed
Session Type	Manual
Tests As Of Date	2/13/16 4:40 PM
Build ID:	
Test Environment:	



5 Defects

In total were 3 defects detected, which are listed below:

Test Case	Defect	Summary	State
TC-544	D-626	Timers corrupted when switching modes,not available	In Development
TC-546	D-628	Time standards not observing Daylight Savings Time in Britian2,not available	In Development
TC-548	D-620	Hardware incorrectly positioned,not available	Assigned



6 Signatures

Tester:

Date	Name	Signature
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Quality Manager:

Date	Name	Signature
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