# Software Engineering Group Project Test Specification

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# CONTENTS

		TRODUCTION	2
		Purpose of this document	
	1.2	Scope	2
	1.3	Objectives	2
2	TES	ST SPECIFICATION	3
$\mathbf{R}$	EFE]	RENCES	14
D	OCU	IMENT HISTORY	1⊿

#### 1 INTRODUCTION

### 1.1 Purpose of this document

The purpose of this document is to outline how we aim to enforce good testing practice, and as such contains a 'Test Specification' which demonstrates how to test against the different requirements as specified in the requirements specification[1], as well as displaying the criteria that must be met in order to pass tests.

#### 1.2 Scope

This document specifically covers the 'Test Specification' section of the Test Procedure Standards Quality Assurance Document[2]

This document should be read by all project members. It is assumed that the reader is already familiar with the Test Procedure Standards [2].

### 1.3 Objectives

The objectives of this document are as follows:

- Identify where a test will be necessary against the requirements specificationse.qa.rs and give it a unique ID.
- Explain the exact function/requirement that is being tested.
- Explain how a user would undertake a test, as well as the desired output if successful.
- Explain the criteria that must be met by the test in order for it to be deemed as "Passed".

# 2 TEST SPECIFICATION

Test Ref-	Referen	ceTest Content	Input	Output	Pass Criteria
erence	Re- quire- ment			_	
MAN-001	FR3	TaskerMAN should support the creation of team member data	In the Create user page of taskerMAN create a new user with name "John Smith" and email "js@aber.ac.uk"	The Show users page in TaskerMAN will now include the user "John Smith"	All data entered should be correct and the show team member's page displays js@aber.ac.uk
MAN-002	FR3	TaskerMAN should support the creation of team member data	In the create team member page of TaskerMAN try to enter in "hello" as the email address.	Client side form validation should execute.	Form validation should notify user that it is not a valid email address.
MAN-003	FR3	TaskerMAN should support the creation of team member data	In the Create team member page of TaskerMAN, create a team member with their first name as "DROP TABLE User"	An SQL query will be executed with the first name set as "DROP TABLE User?.	Remote database will still be intact if protection against SQL injection is correctly set up.
MAN-004	FR3	TaskerMAN should support the updating of team member data	Under the edit team member page of TaskerMAN select to edit "js@smith.com" and change its name to "Tom Smith".	The show team members page in TaskerMAN should now have the updated team member	Form validation should notify user that it is not a valid email address.
MAN-005	FR3	TaskerMAN should support the updating of team member data.	Under the edit team member page of TaskerMAN edit "js@smith.com"'s email to be "hello".	Client side form validation should execute.	The show tasks page in Tasker-MAN will show the updated task with it's new title
MAN-006	FR3	TaskerMAN should support the deletion of team member data.	Under the edit team member page of TaskerMAN delete the team member with the name "Tom Smith"	The team member will be deleted from the database.	The show team member's page in TaskerMAN should no longer include the team member "js@smith.com"

MAN-007	FR3	TaskerMAN should support the creation of task data.	In the create team Member page of TaskerMAN create a new team member with name "John Smith" and email "js@aber.ac.uk" (Test subject needed)	Query will be executed to Insert into the team member table the new team member.	Database should now include the team member "js@aber.ac.uk."
MAN-008	FR4	TaskerMAN should support the updating of task data	Under the create task page of TaskerMAN create a task with:  Title = "make coffee", Start Date = "30/01/2016",  End Date = "1/02/2016",  TaskElement1 title = "get Cup",  TaskElement2 title= "grind beans", and allocate it to "js@smith.com"	The task should be added to the remote database.	The show tasks page in TaskerMAN will show the task entered and should have the exact input data and have a Task Status of ?AL-LOCATED? and will be allocated to "js@smith.com?.
MAN-009	FR4	TaskerMAN should support the creation of task data	Under the create task page of TaskerMAN create a task with:  Title = "make coffee", Start Date = "30/01/2016",  End Date = "1/01/2000",  TaskElement1 title = "get Cup",  TaskElement2 title= "grind beans", and allocate it to "js@smith.com"	Client Side form validation should execute.	User should be notified that they entered an end date that was before the start date.

MAN 010	ED4	T1MAN	TT1 414-	COI O 414	D-4-11-
MAN-010	FR4	TaskerMAN	Under the create	SQL Query that	Database should
		should support	task page of	partly contains the	still be intact.
		the creation	TaskerMAN create	String "DROP TA-	
		of task data	a task with: Title	BLE Tasks" will be	
		(Testing against	= "DROP TABLE	executed	
		SQL Injection)	Tasks", Start Date		
			= "30/01/2016",		
			End Date =		
			"1/02/2016",		
			TaskElement1		
			title = "get Cup",		
			TaskElement2		
			title= "grind		
			beans", and		
			allocate it to		
			"js@smith.com"		
MAN-011	FR4	TaskerMAN	Under the edit	The task should	The show tasks
		should support	task page in	be updated in the	page in Tasker-
		the updating of	TaskerMAN select	database	MAN will show
		task data.	the "Make Coffee"		the updated task
			task. Choose to		with an extra
			add an extra task		Task Element.
			element: Title=		
			"pour water".		
MAN-012	FR4	TaskerMAN	Under the edit	The selected task	The show
		should support	task page in	will be deleted	tasks page in
		the deletion of	TaskerMAN, select	from the database.	TaskerMAN
		task data.	the task "make		should now not
			coffee". Delete this		include the task
			task.		"make coffee"
					as it should've
					been removed from the remote database.

MANI 010	DDF	TD 1 MEANT		m 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	m 1
MAN-013	FR5	TaskerMAN	Create a new	The task should be	The show
		should support	team member,	updated in the re-	tasks page
		the re-allocation	first name:	mote database.	in TaskerMAN
		of a task	"testy", last name		should now show
			"mctesty", email:		the task with
			"test@test.test"		"js@smith.com"
			and a password		allocated to it.
			of "123". Create		anocarea to it.
			Title = "make		
			coffee", Start Date		
			= "30/01/2016",		
			$\mid$ End Date $=$		
			"1/02/2016",		
			TaskElement1		
			title = "get Cup",		
			TaskElement2		
			title= "grind		
			beans". Allocate it		
			Go to edit tasks		
			page, select the		
			task and choose		
			to re-allocate it to		
			"js@smith.com".		
MAN-014	FR6	TaskerMAN	Under the edit	The task should be	The show
		should	task page in	updated in the re-	tasks page
		support the	TaskerMAN	mote database.	in TaskerMAN
		abandonment of	select to edit		should now show
		a task	the task "Make		the task with a
			coffee", change		task status of
			its task status to		"Abandoned".
			"Abandoned"		ribandoned.
MAN-015	FR7	TaskerMAN	Create a new task	A query should be	The task "Hey
WIAN-015	rivi			_ ~ ~	_ ~ _
		should support	with: Title = "Hey	sent to list all tasks	Im a task look
		the viewing of	Im a task look at	in the database.	at me" will be
		tasks.	me", Start Date		displayed, along
			= "12/02/2016",		with any other
			$\mid$ End Date =		tasks should
			"12/02/2016",		they exist in the
			TaskElement1 =		remote database
			"look at me pls"		
			and allocate it to		
			"js@smith.com"		
			(This is so that		
			at least one task		
			exists on the		
			remote database).		
			· /		
			On TaskerMAN		
			click on the "View		
1			Tasks" page		

MAN-016	FR7	TaskerMAN	On TaskerMAN in	A query should be	The list of
1111111-010	1101	should support	the "view tasks"	sent to the remote	tasks that are
		the filtering of	page select the op-	database to list all	displayed should
		tasks dependant	tion to filter by	the tasks by team	be displayed
		on allocated	team member	member	by member in
		team member.		1110111001	alphabetical
		deall memser.			ascending order.
MAN-017	FR7	TaskerMAN	On TaskerMAN in	A query should be	The list of
		should support	the "view tasks"	sent to the remote	tasks that are
		the filtering of	page select the op-	databse to list all	displayed should
		tasks dependant	tion to filter by	the tasks by task	be displayed
		on task status.	task status	status	by task status
					in alphabetical
					ascending order.
CLI-001	FR8	TaskerCLI	Upon login,	A query should	The user will
		should be able	enter the user	be sent to the	then be logged
		to identify the	credentials:	database to locate	in and on the
		member upon	Username:	the user with the	main page of
		logging in	"jsmith@smith.com"	data entered	TaskerCLI the
		00 0	Password: "123".	,	current user will
					say "logged in as
					"Tom Smith""
CLI-002	FR8	TaskerCLI	Upon login enter	Authenticator will	User should be
		should be able	in the credentials:	check to see if	notified that
		to identify the	Username =	the user in the	their credentials
		member upon	"bob", Password	database.	were incorrect.
		logging in	= "1"		
CLI-003	FR8	TaskerCLI	Upon login enter	A query will be	The remote
		should be able	in the credentials:	run that partly	database should
		to identify the	Email= "DROP	contains the String	still be intact.
		member upon	TABLE User"	"DROP TABLE	
		logging in		User".	
CLI-004	FR8	TaskerCLI	Upon login enter	The users details	"js@smith.com"
		should store	in the credentials:	will be stored	should have
		the login details	Userame =	in the local	their credentials
		locally for future	"js@smith.com"	SQLite database	stored in the
		use.	and the password	(password should	local database
			= "123", then	be hashed).	(password also
CLLOOF	ED9-	TogleonCLI	logout.	This -111	hashed).
CLI-005	FR8a	TaskerCLI	Log in to the user "js@smith.com"	This should	The Local
		should be able	"	synchronise and store all	SQLite Database
		to store data on the user's	(password: 12345).	and store all data (locally)	should contain
		computer locally		associated with	the tasks for
		for the user that		"js@smith.com".	"js@smith.com"
		is logged in.		ு ந்∞ளாள்.com .	Ja⊚ammin.com
		is logged III.			

CILOR	EDO	To alread I	Cmaata a t- 1	Th:a -111	ITable J:1-
CLI-006	FR9	TaskerCLI	Create a new task	This should	JTable displays
		should be able	on TaskerMAN	synchronise	added task.
		to synchronise	with: Title = "test	with the remote	
		to get all the	code", Start date	database and	
		tasks for the	= "30/01/2016",	display the list of	
		user that is	End date =	tasks including	
		logged in at	"01/02/2016",	the newly	
		the time and	TaskElement1 =	assigned task to	
		should only be	"module testing",	"js@smith.com".	
		ones that have	TaskElement2 =		
		a task status of	"system testing".		
		"allocated"	Allocate it to		
			j"s@smith.com".		
			On TaskerCLI		
			log into the user		
			"js@smith.com"		
CLI-007	FR10	Synchronisation	Using TaskerMAN,	Upon logging	The table will
		should support	select the task	in, TaskerCLI	no longer con-
		the deletion	"make coffee"	should synchronise	tain the "make
		of com-	and set its	with the remote	coffee" task.
		pleted/abandoned	Task Status =	database and no	
		tasks.	"ABANDONED".	longer contain the	
			Login to	"make coffee" task.	
			"js@smith.com"		
			(on TaskerCLI)		
CLI-008	FR9	Synchronisation	Log into	After editing the	The completed
		should support	"js@smith.com" on	task, TaskerCLI	task should be
		the deletion	TaskerCLI, select	will synchronise	removed from
		of com-	the task "test	with the remote	the table.
		pleted/abandoned		database and	
		tasks.	complete task.	should no longer	
			F	display the "test	
				code" task.	
	1			COGO COOK	

CLI-009	FR10	TaskerCLI	On TaskerMAN	TaskerCLI should	Upon selecting
CLI-003	11010	must be able to	create a task	synchronise with	the task from
		support the local	with: Title =	the database and	now on the
		editing of tasks	"Do chores",	update comment	comment "go
		(Task element	Start Date =	for the Task	for a pint"
		comments)	"30/01/2016",	Element.	should remain
			End Date=		associated with
			"1/02/2016",		the element
			TaskElement		"Find way of
			title = "Make a		procrastinat-
			list of chores",		ing".
			TaskElement2		_
			title= "Find way of		
			procrastinating".		
			Allocate it to		
			"js@smith.com".		
			Then login to		
			TaskerCLI using		
			"js@smith.com".		
			Edit the task "Do		
			chores" and enter		
			the comment "go		
			for a pint" on		
			the Task Element		
			"Find way of		
CI I 010	ED 10	The second second	procrastinating".	A GOT 111	D .
CLI-010	FR10	TaskerCLI	Login to	An SQL query will	Remote
		must be able to	TaskerCLI	be executed which	database should
		support the local	with the user	will partly contain	still be intact.
		editing of tasks (Task element	"js@smith.com", edit the task "Do	the String "DROP TABLE Tasks".	
		comments)	chores" and enter	TABLE TASKS.	
		(comments)	the comment		
			"DROP TABLE		
			Tasks" on the Task		
			Element "Make a		
			list of chores".		
CLI-011	FR11	Synchronisation	On TaskerMAN	TaskerCLI should	After logging
		must happen on	proceed to edit	synchronise with	into TaskerCLI
		startup	tasks, edit the	the database after	select the task
			task "Make a	logging in and	"Make a list of
			list of chores" by	update the Task	chores". The
			changing the Task	Element.	Task Element
			Element "Find way		"Find way of
			of procrastinating"		procrastinating"
			to "do chores		should now be
			tomorrow		"do chores
			instead". Login		tomorrow
			to TaskerCLI with		instead".
			"js@smith.com"		

CLI-012	FR11	Synchronisation must happen before editing a task.	Login to " js@smith.com" on TaskerCLI. On TaskerMAN update the task "Do chores" so that the Task Element "Make a list of chores" is now "Think about chores". Then select the task on TaskerCLI.	After selecting the task, TaskerCLI should synchronise with the remote database and update the Task Element.	After logging into TaskerCLI select the task "Make a list of chores". The Task Element should now be called "Think about chores".
CLI-013	FR11	Synchronisation must happen after editing a task.	Login to " js@smith.com" on TaskerCLI. Select the task "Do chores" and add the comment "think harder" to the task element "Think about chores", then close the task.	After selecting the task, TaskerCLI should synchronise with the remote database and update the Task Element.	The updated task element and comment should now be visible on TaskerMAN.
CLI-014	FR11	TaskerCLI should synchronise with the database every 5 minutes of it being logged on.	Login to "js@smith.com" on TaskerCLI. On TaskerMAN edit the task "Think about chores" and set it's status to "abandoned".  Go back to TaskerCLI and wait for automatic sunchronisation to occur.	After 5 minutes TaskerCLI should synchronise.	The task should no longer be vis- ible on Tasker- CLI after syn- chronisation.
UI-001	IR1	The user interfaces of TaskerMAN should be easy to use by regular computer users	A non-developer of the group try to create a user (for themselves) in TaskerMAN	User should be able to create a team member without asking for help	Team member has been created without any difficulty
UI-002	IR1	The user interfaces of TaskerMAN should be easy to use by regular computer users	A non-developer of the group try to edit a team mem- ber In TaskerMAN	User should be able to edit a team member without asking for help	The team member data can be edited by the user without any difficulty

UI-003	IR1	The user	A non-developer of	User should be	The team
01-003	11(1	interfaces of	the group try to	able to delete	member data
		TaskerMAN	delete a team (not	a team member	should be
		should be easy	themselves) mem-	without asking for	deleted without
		to use by regular	ber in TaskerMAN	help	any difficulty
		computer users		*	
UI-004	IR1	The user	A non-developer of	User should be able	A task should
		interfaces of	the group try to	to create a new	be created by
		TaskerMAN	create a new task	task without ask-	the user and
		should be easy	in TaskerMAN and	ing for help	allocated to
		to use by regular	set the task to be		themselves
		computer users	allocated to them		without any
III oor	ID1	(TD)	A 1 1 C	TT 1 111 11	difficulty
UI-005	IR1	The user interfaces of	A non-developer of	User should be able	The user should
		interfaces of TaskerMAN	the group try to edit the task that is	to edit a new task without asking for	be able to
		should be easy	allocated to them	help	change the status of
		to use by regular	to have a task sta-	петр	the task to
		computer users	tus of 'completed'		"Completed"
		compater asers	in TaskerMAN		without any
			III Tabketwittiv		difficulty
UI-006	IR1	The user	A non-developer of	User should be able	The user should
		interfaces of	the group try to	to delete a new	be able to delete
		TaskerMAN	delete a task (not	task without ask-	the task without
		should be easy	the task that was	ing for help	any difficulty
		to use by regular	allocated to them)		
		computer users	TaskerMAN		
UI-007	IR1	The user	A non-developer of	User should be	The user should
		interfaces of	the group try to	able to view the	be able to view
		TaskerMAN	view members of	team members in	the team mem-
		should be easy	the group	the group without	bers in the group
		to use by regular		asking for help	without any dif-
TH 000	ID 1	computer users	1 1 0	TT 1 111 11	ficulty
UI-008	IR1	The user	non-developer of	User should be able	The user should
		interfaces of TaskerMAN	the group try to view the tasks	to view the tasks in	be able to
			view the tasks	the group, without	view the tasks allocated to
		should be easy		asking for help	
		to use by regular computer users			group members without any
		computer users			difficulty
UI-009	IR1	The user	A non-developer of	User should be able	The user should
= = = = = = = = = = = = = = = = = = =		interfaces of	the group try to	to see the task	be able to filter
		TaskerMAN	Filter tasks that	that was allocated	tasks that are al-
		should be easy	are allocated to	to them, without	located to them
		to use by regular	them	asking for help	without any dif-
		computer users		•	ficulty
UI-010	IR1	The user	A non-developer of	User should be able	The user should
		interfaces of	the group try to	to see the task that	be able to filter
		TaskerMAN	Filter tasks that	they created (that	tasks that have
		should be easy	are completed	has a task status of	been completed
		to use by regular		'completed')	without any dif-
		computer users			ficulty

UI-011	IR1	The user interfaces of TaskerCLI should be easy to use by regular	A non-developer of the group try to login to TaskerCLI	User should be able to login without asking for help	The user should be able to lo- gin to TaskerCLI without any is- sue
UI-012	IR1	computer users  The user interfaces of TaskerCLI should be easy to use by regular computer users	A non-developer of the group try to view tasks in TaskerCLI	User should be able to navigate to be able to view tasks without asking for help	The user should be able to view the tasks and their respective task elements without any difficulty
UI-013	IR1	The user interfaces of TaskerCLI should be easy to use by regular computer users	A non-developer of the group try to edit a task in TaskerCLI	User should be able to edit a task with- out asking for help	The user should be able to edit a task without any difficulty
UI-014	IR1	The user interfaces of TaskerCLI should be easy to use by regular computer users	A non-developer of the group try to use the search bar to search for a task	User should be able to search for a task using the search bar without asking for help	The user should be able to use the search bar to search for a specific task without any difficulty
UI-015	IR1	The user interfaces of TaskerCLI should be easy to use by regular computer users	A non-developer of the group try to filter tasks by those allocated to them	User should be able to filter tasks that were allocated to them without ask- ing for help	The user should be able to filter the tasks without any difficulty
PER-001	PR1	Program should respond to user input in a mini- mum of a second	Enter a user's credentials into the login page of Tasker-CLI and click enter	The page should log in in less than a second	The page logged in in less than a second
PER-002	PR1	Program should respond to the user input in a minimum of a second	Press show tasks in TaskerCLI	The tasks should be displayed in less than a second	The tasks were displayed in less than a second
PER-003	PR1	Program should respond to the user input in a minimum of a second	Enter data for a new team member in TaskerMAN	The member should be visible within one second	The user was visible within one second
PER-004	PR1	Program should respond to the user input in a minimum of a second	Enter data for a new Task in TaskerMAN	The task should be visible within one second	The task was visible within one second

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PER-005	PR2	TaskerCLI	Run TaskerCLI on	Program should	Program
		should run on	a Linux machine	execute	executed
		any machine			
		supporting Java			
PER-006	PR2	TaskerCLI	Run TaskerCLI	Program should	Program
		should run on	on a Windows	execute	executed
		any machine	machine		
		supporting Java			
PER-007	PR2	TaskerCLI	Run TaskerCLI on	Program should	Program
		should run on	a Mac	execute	executed
		any machine			
		supporting Java			
PER-008	PR2	TaskerSRV must	Test connection	Should connect	JDBC connected
		run on a suitable	to database using	successfully	to the database
		web server	JDBC by logging	, v	successfully
			into TaskerCLI		, v
PER-009	PR2	TaskerMAN	Deploy	Should work cor-	Worked
		should be	TaskerMAN to	rectly	correctly
		deployable on	an apache web		
		an apache web	server		
		server			

## REFERENCES

- [1] Software Engineering Group Projects Requirements Specifications. N. W. Hardy, SE.QA.RS. 1.2 Release.
- [2] Software Engineering Group Projects Test Procedure Standards C. J. Price, N.W.Hardy and B.P.Tiddeman, SE.QA.06. 1.8 Release.

### DOCUMENT HISTORY

Version	CCF No.	Date	Changes made to Document	Changed by
1.0	N/A	2015-11-12	Initial creation for LaTeX	L. Jones
1.1	N/A	2016-14-02	Updated by Tom M based on Nigel's feedback,	L. Jones
			final version	