Project Name	Find my hearing aid
Online team meeting	Thema: AMOS: Find My Hearing Aid Uhrzeit: Dies ist ein regelmäßig stattfindendes Meeting Jederzeit treffen Zoom-Meeting beitreten https://fau.zoom.us/j/66825093998?pwd=L2JHeVBmWXpxc1o2cENiMGJ2ZHIvQT09 Meeting-ID: 668 2509 3998 Kenncode: 448171
Online team meeting link	https://fau.zoom.us/j/66825093998?pwd=L2JHeVBmWXpxc1o2cENiMGJ2ZHIvQT09
Production system (if any)	
Test system (if any)	
GitHub repository	https://github.com/amosproj/amos2022ss05-find-my-hearing-aid
GitHub kanban board (project)	https://github.com/amosproj/amos2022ss05-find-my-hearing-aid/projects/1
Team T-shirt (white)	https://www.shirtinator.de/loadBasket/0x0Q0rXJesp
Team T-shirt (black)	https://www.shirtinator.de/loadBasket/Trc2TnlshxN
Additional materials	*none*

Last Name	First Name	GitHub User Name	Email Address	GitHub Email Address
Meister	Luis	Meisterlu	luis.meister@fau.de	l.gantikow@gmx.de
Wandinger	Adrian	Wandinad	adrian.wandinger@fau.de	
Xiangxiang	Chen	cynthiachen28	xiangxiang.chen@fau.de	xiangxiang.chen@fau.de
Stellwag	Nicolas	NicoStellwag	nicolas.stellwag@fau.de	nico.stellwag@gmail.com
Schütz	Jannik	jannikbmc	jannik.schuetz@fau.de	jannik.schuetz@gmx.net
Aldoais	Marib	Interperle	marib.aldoais@fau.de	marib.aldoais@googlemail.com
Pysch	Dominik	domi1504	dominik.pysch@fau.de	domi.pysch@gmail.com
Werner	Elias	codingwithelijah	elias.werner@fau.de	
Köberlein	Leo	Chippelius	leo.koeberlein@fau.de	leo@wolfgang-koeberlein.de

Goals	
	Create stable and reliable software the industry partner is satisfied with
	Pass the course and have a successful project and collaboration with the industry partner
	Interpersonal relationship objectives: increase team building skills
	Learn about Scrum and IT Project work
Meeting norms	
	We come to the meeting on time (5 min grace period), end the meeting on time and switch on our cameras
	If someone is not able to attend the meeting, let everyone else know as soon as possible (give update on own tasks through Discord)
	Get together depending on the workload/tasks, i.e. SD meeting / PO meeting when necessary Do not hesitate to work in small groups, we are a team! (3 meetings at max as a whole team)
Working norms	
	Everyone contributes regularly. If someone has a lot of other work to do in a week, inform the POs and try to balance it out the next week.
	Agree on a coding convention.
	If we have difficulties with the tasks, we speak about it openly. We do not hope that no one will notice.
Coordination norms	
	We always make sure to clearly and unambiguously designate responsibilities.
	When we assign To Dos, we always make sure that the tasks are fairly distributed among the group members.
	Tasks are assigned via GitHub or stated in the meeting protocols.
Communication norms	
	Check the communication channels at least every 24h (small stuff & quick response in WhatsApp)
	Don't interrupt each other
	We have an open and clear communication style. Everyone is able to address his/her concerns at all times. We always stay respectful.
	Luis and Elias as POs will initiate the contact to the industry partner. The whole group will always be added into the CC when communicating with the industry partner.
Consideration norms	
	We love diversity, that’s why we value every comment
	Direct, open and constructive feedback Is desired to achieve the best possible results.
Cont. improvement norms	
	Everyone does the Standup E-Mails at least twice per week
	Happiness index is done once a week in the retroperspective of the sprint
	Track the teams process via the Kanban board
Rewards	
	Mid term reward: Bergkirchweih Meet-up
	End of the project reward: Restaurant or Bar Meet-up
Sanctions	
	Group-Pot: Money we will use together on our "reward-meetings" - If you are late: 1€ per minute (over the 5 grace-minutes) [5€ max. per meeting]
	Not attending a meeting without informing the others will be punished with cake for the whole group (think about ways how to distribute it to the homes of the group members yourself)

	Sportive sanction: 5 push ups/situps per minute late (counted after the 5minutes limit)
Signature	
	Jannik Schütz, Luis Meister, Elias Werner, Xiangxiang Chen, Dominik Pysch, Adrian Wandinger, Marib Aldoais, Leo Köberlein, Nicolas Stellwag

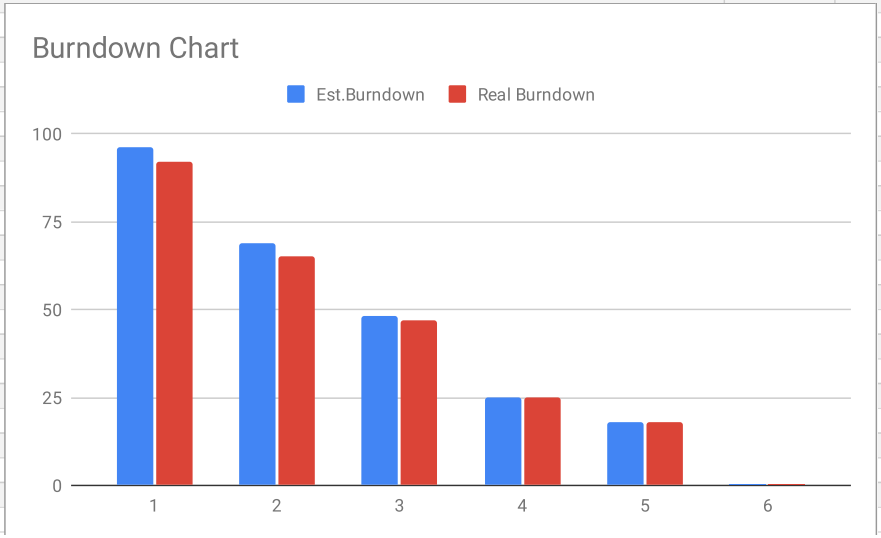
#	Meeting Day	Uni	Comment	Product Owner	Software Developer	Release Manager	Scrum Master
1	2022-04-27			Luis and Elias	Everyone else	Leo Köberlein	Xiangxiang Chen
2	2022-05-04			Luis and Elias	Everyone else	Leo Köberlein	Xiangxiang Chen
3	2022-05-11	Yes		Luis and Elias	Everyone else	Leo Köberlein	Xiangxiang Chen
4	2022-05-18			Luis and Elias	Everyone else	Leo Köberlein	Xiangxiang Chen
5	2022-05-25	Yes		Luis and Elias	Everyone else	Leo Köberlein	Xiangxiang Chen
6	2022-06-01			Luis and Elias	Everyone else	Marib Aldoais	
7	2022-06-08	Yes	Mid-term due	Luis and Elias	Everyone else	Leo Köberlein	Xiangxiang Chen
8	2022-06-15			Luis and Elias	Everyone else	Dominik Pysch	Xiangxiang Chen
9	2022-06-22			Luis and Elias	Everyone else	Adrian Wandinger	Xiangxiang Chen
10	2022-06-29	Yes		Luis and Elias	Everyone else	Leo Köberlein	Xiangxiang Chen
11	2022-07-06			Luis and Elias	Everyone else	Leo Köberlein	Xiangxiang Chen
12	2022-07-13			Luis and Elias	Everyone else	Nicolas Stellwag	Xiangxiang Chen
13	2022-07-20	Yes		Luis and Elias	Everyone else	Leo Köberlein	Xiangxiang Chen
14	2022-07-27		Demo day!	Luis and Elias	Everyone else	Leo Köberlein	Xiangxiang Chen
15	2022-08-03		Retrospective	Luis and Elias	Everyone else	Leo Köberlein	Xiangxiang Chen

Product Vision	Project Mission
Loosing important devices that are indispensable in daily life is annoying. The "Find my BLE device" app solves this problem and makes life more convenient by allowing users to locate their devices at any time. Whether a relevant device has been lost or just can't be found when pressed for time, this app makes customers' lives easier and more convenient.	The mission of this project is to create an app for WSA by providing the feature of locating BLE devices. The app should be able to detect BLE devices and assign labels to it. In addition it helps tracking the device and navigating to the exact location of the device no matter if in short or long distance. This ensures an overview of all relevant devices at all times.

Term	Definition
BLE	Bluetooth low energy
Device	BLE device which is searched for
Signal Strength feature	View within app that allows user to track device via signal strength location
Geolocation feature	View within app that allows user to track device via geolocation
Device Detail View	View within app that allows to manage your BLE devices
Saved devices	Devices that are have been selected by the user and are stored in the database
Arduino	Test BLE devices from the customer
RSSI value	Strength of the Bluetooth signal
smartphone	The device I am running the App on
label	Text given by the user for a certain device within the app
Last known location	GPS coordinate of smartphone in the signal of a previously saved device has reached a certain treshold

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
1	**Organization & Get to know**	**Kick off & project setup and structure**						
			#3 Team Logo	3		3		
			#3 T Shirt design	2		2		
			#2 Team contract	3		5		
			Meeting with Industry partner	2		2		
			#4 Full understannding of organizational basics	2		2		
			Setup coding environments	2		2		
			Setup communication channels	1		1		
2	**Research and Setup**	**Research underlying software & Implement first Hello World app**			**27**		**27**	
			#9 Create PDF of software architecture	3		3		
			#12 Research on underlying software	5		5		
			#11 Deployment of Hello World app	3		3		
			#7 Find out how to connect Bluetooth devices with Xamarin	8		8		
			#5 Claryfication of technical setup	1		1		
			#13 Bill of Materials	1		1		
			Research on signal strength solution	3		3		
			Research on geolocation solution	3		3		
3	**Further Setup and Getting started**	**Further Setup and get started coding**			**21**		**18**	
			#16 Establish Knowledge base	1		1		
			#18 Creation of Story Map	5		3		
			#15 Create Sitemap	5		3		
			#26 Setup structure of database	5		5		
			#29 Ensure writing clean code with the integration of SonarCloud/SonarLint	3		5		
			#30 Setup CI pipeline	2		1		
4	**Backend Architecture & first UI implemented**	**Implementation of first product features**			**23**		**22**	
			#35 Fine tune product mission and vision	2		2		
			#39 Display surrounding BLE devices	8		8		
			#60 Meeting with Customer	2		2		
			#14 Create draft of standalone UI	8		8		
			#64 Write test for database	3		2		
5	**Basic Frontend and Backend Functionalities**	**Breaktrough regarding functionalities of MVP**			**7**		**7**	
			#68 Agree on design pattern	2		2		
			#71 Show screen with varying circle radius	5		5		
6	**Finalize MVP functionalites**	**Finalizing functionalities and ensure clean run of the App**			**18**		**18**	
			#70 List dummy BLE devices in Surrounding	1		1		
			#72 Extract list that contains all devices that are emitting a Bluetooth signal	2		2		

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
			#73 Extract human readable name of each device that are emitting a Bluetooth signal	2		2		
			#74 Extract signal strength of selected devices	5		5		
			#80 Combine Logic and UI	3		3		
			#49 Select one BLE device	3		3		
			#104 Take care of customer mail	2		2		
	Release	**Mid Term**						
	no Sprints	6						
	Due Date	TBD						
	Sprint	**Sprint Theme**	**User Stories**	**Est.Size**	**Est.Burndown**	**Real Size**	**Real Burndown**	
	1	**Organization & Get to know**	#2. #3, #4		96		92	
	2	**Research and Setup**	#5, #7, #9, #11, #12, #13	27	69	27	65	
	3	**Further Setup and Getting started**	#15, #16, #18, #26, #29, #30	21	48	18	47	
	4	**Backend Architecture & first UI implemented**	#35, #39, #60, #14, #64	23	25	22	25	
	5	**Basic Frontend and Backend Functionalities**	#68, #71	7	18	7	18	
	6	**Finalize MVP functionalites**	#70, #72, #73, #74, #80, #49, #104	18	0	18	0	



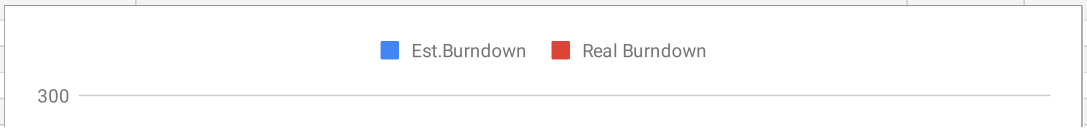
#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
	Est.size in sprint 5 as no sizes were given for early tasks							

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
1	**Organization & Get to know**	*Kick off & project setup and structure*			**15**		**17**	
			#3 Team Logo	3		3		
			#3 T Shirt design	2		2		
			#2 Team contract	3		5		
			Meeting with Industry partner	2		2		
			#4 Full understannding of organizational basics	2		2		
			Setup coding environments	2		2		
			Setup communication channels	1		1		
2	**Research and Setup**	*Research underlying software & Implement first Hello World app*			**27**		**27**	
			#9 Create PDF of software architecture	3		3		
			#12 Research on underlying software	5		5		
			#11 Deployment of Hello World app	3		3		
			#7 Find out how to connect Bluetooth devices with Xamarin	8		8		
			#5 Claryfication of technical setup	1		1		
			#13 Bill of Materials	1		1		
			Research on signal strength solution	3		3		
			Research on geolocation solution	3		3		
3	**Further Setup and Getting started**				**21**		**18**	
			#16 Establish Knowledge base	1		1		
			#18 Creation of Story Map	5		3		
			#15 Create Sitemap	5		3		
			#26 Setup structure of database	5		5		
			#29 Ensure writing clean code with the integration of SonarCloud/SonarLint	3		5		
			#30 Setup CI pipeline	2		1		
4	**Backend Architecture & first UI implemented**	*Implementation of first product features*			**23**		**22**	
			#35 Fine tune product mission and vision	2		2		
			#39 Display surrounding BLE devices	8		8		
			#60 Meeting with Customer	2		2		
			#14 Create draft of standalone UI	8		8		
			#64 Write test for database	3		2		
5	**Basic Frontend and Backend Functionalities**	*Breaktrough regarding functionalities of MVP*			**7**		**7**	
			#68 Agree on design pattern	2		2		
			#71 Show screen with varying circle radius	5		5		

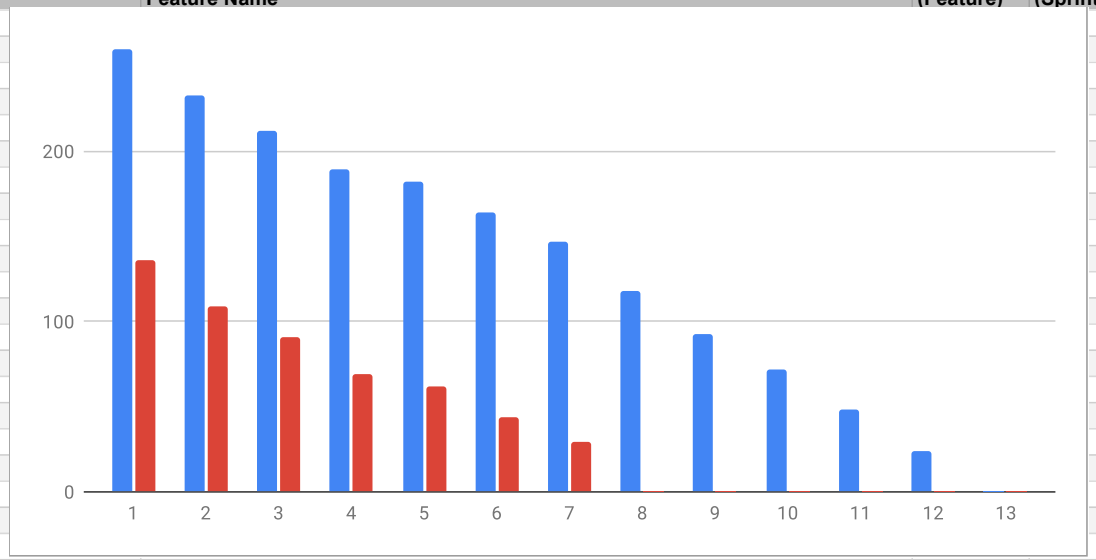
#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
6	**Finalize MVP functionalites**	*Finalizing functionalities and ensure clean run of the App*			**18**		**18**	
			#70 List dummy BLE devices in Surrounding	1		2		
			#72 Extract list that contains all devices that are emitting a Bluetooth signal	2		2		
			#73 Extract human readable name of each device that are emitting a Bluetooth signal	2		1		
			#74 Extract signal strength of selected devices	5		5		
			#80 Combine Logic and UI	3		2		
			#49 Select one BLE device	3		3		
			#104 Take care of customer mail	2		3		
7	**Completion of the Signal Strength Functionality**	*Finish Signal Strength Solution and Ensure Code Coverage >70%*			**17**		**15**	
			#129 remove unneccesary code components	2		1		
			#93 Implement discussed software hierarchy	5		5		
			#120 Ensure>75% test code coverage	5		5		
			#96 Indicate that BLE device is very close to the user	2		2		
			#117 Indicate BLE device is out of range	3		2		
8	**Adjustment of signal strength solution and research of Geolocation Solution**	*Further develop signal strength feature, enhance usability, get started wtih geolocation feature*			**29**		**29**	
			#118 Make tests to map RSSI-values to distance in meters	2		2		
			#69 Ensure nice welcome screen	2		2		
			#153 Allow user via settings to display BLE device without a human readable name	3		3		
			#128 Lay foundation for UI test	5		8		
			# 152 Make sure text is properly displayed within Signal strength feature	3		2		
			#149 Display device specific map	5		5		
			#145 User measured power of Arduino devices and reinclude distance display	3		2		
			#Research regarding BLE vs BVluetooth	3		2		
			#144 Display GPS signal of a device as a number	3		3		
9	**Implementation of geolocation solution**	Show map with GPS coordinate of a selected device and lay foundation for distance calculation			**25**		**21**	
			#187 Display and regurlarly update GPS-coordinate of smartphone on the map		3			
			#193 Allow user to edit label of devices wihtin device detail page		3			
			#143 Minor UI adjustements for detection view		2			
			#142 Ensure known BLE device are visually encodede when emitting a signal		3			
			#189 Implement foreground service to update "lat known location" of BLE device if certain RSSI value is reached		5			
			#199 Take RSSI measurements into account for calculating distance to the device and ensure correct display of it		2			

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
			#137 Write UI tests to make sure we reach >75% test code coverage		5			
			#188 Show "last known location" of BLE device map		2			
10	**MVP Geolocation Solution**	Ensure fluent run of geolocation feature without major bugs			**21**		**21**	
			#209 Customer meeting on friday					
			#Prepare scenarios for and conduct regression tests					
			#211 make explorative tests					
			#213 Ensure well refactored code					
			#214 Start implementing design as provided by POs inf FIGMA					
			#215 Calculate route to lost BLE device					
			#194 Allow user to siwthc to OS specific map via buttons labeledd with the name of the navigation system					
			Adapt design of geolocation map to our design					
11	**Test with final product and UI improvements**	*Ensure solid functionality of scenarios provided by customer*			**24**		**24**	
			implement suggestion made by POs regarding UI of the app (FIGMA)					
			create "guided tour" for first usage of the app with layer on top					
			POs: Based on user scenarios with test cases and "expected behaviors", SDs make sure that expected behavior is implemented (POs write test cases and SDs test and report Bugs, ...)					
12	**Last functional adjustments and UI adjustments**	*Ensure correct implementation of adjustments that were provided by the customer in former sprint*			**24**		**24**	
			Implement final feedback from customer provided in the mail by the end of last week					
13	**Final Checks for Project Release**	Ensure all mandatory requirements of the customer are met and go hand in hand with our definition of done for the final release			**24**		**24**	
			Testing					
			Final bug checking					
			Minor improvements					
			Wording					
			Documentation					

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
			Deliverables					
			Final presentation preparation					
14	**Presentation Final Project**							
	Release	**Final Project Release**						
	no Sprints	14						
	Due Date	27.07.2022						
	Sprint	**Sprint Theme**	**User Stories**	**Est.Size**	**Est. Burndown**	**Real Size**	**Real Burndown**	
	1	**Organization & Get to know**	#2. #3, #4	15	260	17	136	
	2	**Research and Setup**	#5, #7, #9, #11, #12, #13	27	233	27	109	
	3	**Further Setup and Getting started**	#15, #16, #18, #26, #29, #30	21	212	18	91	
	4	**Backend Architecture & first UI implemented**	#35, #39, #60, #14, #64	23	189	22	69	
	5	**Basic Frontend and Backend Functionalities**	#68, #71	7	182	7	62	
	6	**Finalize MVP functionalites**	#70, #72, #73, #74, #80, #49, #104	18	164	18	44	
	7	**Adjustment of signal strength solution and research of Geolocation Solution**	#129, #93, #120, #96, #117	17	147	15	29	
	8	**Adjustment of signal strength solution and research of Geolocation Solution**	#118, #69, #153, #128, #152, #149, #145, #144	29	118	29	0	
	9	**Implementation of geolocation solution**	TBD	25	93		0	
	10	**MVP Geolocation Solution**	TBD	21	72		0	
	11	**Test with final product and UI improvements**	TBD	24	48		0	
	12	**Last functional adjustments and UI adjustments**	TBD	24	24		0	
	13	**Final Checks for Project Release**	TBD	24	0		0	



#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
	Est.size							



#	Feature Definition of Done	Sprint Release Definition of Done	Project Release Definition of Done
1	It builds without errors	DoD of each single User story, included in the Sprint are met	Functional requirements are met
2	code has been reviewed	Code coverage >75%	
3	Build has been made and deployed on a testing environment	All unit tests passing	scenarios are implemented
4	Code coverage >75%	Product backlog updated	Check that no unintegrated work in progress has been left in any development or staging environment.
5	All acceptance criteria were met	Project deployed on the test environment identical to production platform	
6	Documentation updated whenever needed within planning documents (Tabs: Bill of materials, Documentations)	Tests on devices/browsers listed in documentation passed	
7	Branch/feature was merged into dev and then main	The performance tests passed	
8		POs approve release candidate	
9			

Type	Link / reference

\	Context	Name	Version	License	Comment
1	.NET	netstandard	2.0	MIT License	
2	Xamarin	Forms	5.0.0.2012	MIT License	
3	Xamarin	Essentials	1.6.1	MIT License	
4	-	sqlite-net-pcl	1.8.116	MIT License	mobile database
5	Microsoft.NET.Test	Sdk	17.2.0	MIT License	
6	-	Moq	4.18.0	BSD 3-Clause License	C# mocking lib, copyright notice must be included in source code
7	MSTest	TestAdapter	2.2.10	MIT License	
8	MSTest	TestFramework	2.2.10	MIT License	
9	Xamarin.Forms	Mocks	4.7.0.1	MIT License	used to mock xamarin components
10	coverlet	collector	3.1.2	MIT License	collects test coverage information
11		ReportGenerator	5.1.7	Apache License 2.0	creates html view from coverage information
12	Xamarin	Plugin.BLE	2.1.3	Apache License 2.0	Bluetooth module for the app

Last Name	First Name	Value					
Meister	**Luis**	5		**5.00**	**OK**		
Wandinger	**Adrian**	5					
Xiangxiang	**Chen**						
Stellwag	**Nicolas**						
Schütz	**Jannik**			0	No size		
Aldoais	**Marib**			1	Trivial size		
Pysch	**Dominik**			2	Small size		
Werner	**Elias**			3	Medium size		
Köberlein	**Leo**			5	Large size		
				8	Very large size		
				13	Too large (size)		