Slovenská technická univerzita v Bratislave
Fakulta informatiky a informačných technológií
Ilkovičova 2, 842 16, Bratislava 4

Tímový projekt

Vedúci projektu: doc. Ing. Tibor Krajčovič, PhD.
Spolupráca: Ing. Lukáš Ondriga, Kistler Bratislava, s.r.o.
Názov tímu: TEST.IOT
Členovia tímu: Bc. Tomáš Bujna
Bc. Marián Ján Franko
Bc. Rastislav Kováč
Bc. Igor Labát
Bc. Miroslav Sabo
Bc. Filip Starý
Bc. Stanislav Širka
Kontakt: fiit.tp.tim15@gmail.com
Akademický rok: 2018/2019

Sprint Backlog	In Progress	Review	Done
	IOT-49 Prepare Document for Board Design IoTester Refactoring As a hardware engineer, I want to create document for board 8		~~IOT-54~~ Port IoTester specification to Jira *None*
	IOT-80 Model Architecture for Project *None*		~~IOT-7~~ Load RTUexe ComoNeo Digital Inputs As a user I need to do a real time simulation to be able to sim 13
			~~IOT-8~~ RTU and CPU Communication ComoNeo Digital Inputs As a user I need to configure real time simulation to run variou 5
			~~IOT-12~~ Create a Test ComoNeo Digital Inputs As a user I want to test the ComoNeo digital input. 13
			~~IOT-44~~ Methodics Create methodic for: 3
			~~IOT-17~~ Load Program to RTU ComoNeo Digital Inputs As a user I want to be able to set digital output from RTU to b
			~~IOT-11~~ Robot Framework LIB ComoNeo Digital Inputs As a test developer I want to have a library to use IOTester 5
			~~IOT-10~~ REST API Prototype ComoNeo Digital Inputs As a user of IOTester I want to have interface to set the Como 3
			~~IOT-53~~ Manage Kistler resources for PCB design *None*
			~~IOT-50~~ Close Sprint 2 *None*
			~~IOT-51~~ Create Document for Jira Changes *None*
			~~IOT-52~~ Create Document for Tasks Managment *None*
			~~IOT-79~~ Presentation for Sprint 3 End *None*

Summary	Issue key	Issue Type	Status	Assignee	Description	Epic Link	Epic Name	Sprint 1	Sprint 2	Sprint 3	Story Points	Task type
Project goal	IOT-78	Group	Group		The goal of the porject is to enable automatic testing of measuring devices. For this purpose it is necessary to develop a device able to generate various analog and digital signals which will simulate sensors and device states.							
Environment	IOT-71	Group	Group		First prototype of the device is used to test ComoNeo:Â [https://www.kistler.com/en/applications/industrial-process-control/plastic-process-monitoring/injection-molding-process-control/process-monitoring-with-comoneo/]							
Configuration of various devices	IOT-73	Group	Group		REST API should not be ComoNeo specific. It should be possible to use the same data model for other devices.							
REST API	IOT-75	Group	Group		On the basis of ComoNeo analysis create a REST API interface.							
Robot Framework Tests	IOT-70	Group	Group		Examples of robot framework tests demonstrates the functionality of IoTester.							
Configuration of analog signals	IOT-72	Group	Group		It is possible to configure analog signals over REST API.							
Document how to use IoTester for devices other than ComoNeo	IOT-76	Group	Group									
Design	IOT-74	Group	Group									
Configuration of digital signals	IOT-77	Group	Group		It is possible to set digital input signals over REST API.							
Implementation	IOT-62	Group	Group		The goal of the implementation is to provide several working automated tests of the ComoNeo device.							
High level architecture	IOT-65	Group	Group		Architecture document contains high level view on PRU, ARM, beaglebone, robot framework and ComoNeo relations.Â							
Hardware	IOT-63	Group	Group		Harware consists of reusable part and device specific part (e.g. ComoNeo connectors).							
Housing	IOT-61	Group	Group		3D printer housing modelsÂ is designed.							
Tests integration into continuous integration system	IOT-60	Group	Group									
Document how to use IoTester for ComoNeo	IOT-64	Group	Group									
Robot framework integration	IOT-66	Group	Group									
Robot Framework tests	IOT-67	Group	Group									
IoTester architecture	IOT-69	Group	Group		Architecture of the IoTester software is documented.							
Architecture document	IOT-68	Group	Group									
Documentation	IOT-56	Group	Group		REST API is documented. Documentation contains description how to use the interface for different devices (not Lukáš Ondrigay for ComoNeo).							
Test examples implementation	IOT-55	Group	Group									
IoTester implementation	IOT-58	Group	Group									
Project goal	IOT-57	Group	Group									
Software	IOT-59	Group	Group									
Digital Input Test Integration	IOT-90	Story	To Do	Stanislav Širka		IOT-2					13.0	
Testing digital inputs on ComoNeo	IOT-2	Epic	To Do				ComoNeo Digital Inputs					
Create Team Poster	IOT-26	Task	Closed									documentation
Decide on Continuous Server	IOT-22	Task	Closed									other
Call Program on RTU from CPU	IOT-19	Task	Closed			IOT-2						implementation
Analyze Communication Between RTU and CPU	IOT-18	Task	Closed			IOT-2						analysis
Analyze RTU	IOT-13	Task	Closed			IOT-2						analysis
Choose Simple Program for RTU	IOT-16	Task	Closed			IOT-2						analysis
RTU and Web Server Compatibility	IOT-14	Task	Closed			IOT-2						analysis
Model Architecture for Project	IOT-80	Task	In Progress	Stanislav Širka						IOT Sprint 3		documentation
Load Program to RTU	IOT-17	Task	Closed	Igor Labát	As a user I want to be able to set digital output from RTU to be able to test ComoNeo digital input. Acceptance criteria: Running RTU program which sets the digital output of IOTester according configuration from CPU.	IOT-2		IOT Sprint 1	IOT Sprint 2	IOT Sprint 3		implementation
Methodics	IOT-44	Story	Closed	Stanislav Širka	Create methodic for: * Meeting Documentation * Tasks managment - done * Methodics - done * Code versioning - done * Web - done			IOT Sprint 1	IOT Sprint 2	IOT Sprint 3	3.0	
RTU and CPU Communication	IOT-8	Story	Closed	Filip Starý	As a user I need to configure real time simulation to run various simulations. Acceptance criteria: RTU and CPU prototype is running on Beaglebone Linux console.	IOT-2		IOT Sprint 1	IOT Sprint 2	IOT Sprint 3	5.0	
Load RTUexe	IOT-7	Story	Closed	Igor Labát	As a user I need to do a real time simulation to be able to simulate sensor measurements. Acceptance criteria: Loading of the program to the real time unit will be shown on Linux console.	IOT-2		IOT Sprint 1	IOT Sprint 2	IOT Sprint 3	13.0	

Program for RTUexe Configuration	IOT-9	Story	To Do	Filip Starý	As a user I want to be able to set digital output from RTU to be able to test ComoNeo digital input. Acceptance criteria: Running RTU program which sets the digital output of IOTester according configuration from CPU.	IOT-2					8.0	
Jenkins pipeline for installation image	IOT-88	Story	To Do		As a user I want try the latest changes of the IoTester firmware. Acceptance criteria: * Jenkins pipeline which will be trigerred by the change in a giit branch and will compose the IoTester firmware	IOT-89						
Installation image build	IOT-87	Story	To Do		As a developer/tester/user I want to try the latest changes in the IoTester firmware. Acceptance criteria: * script which will integrate parts of the IoTester firmware (web server, PRU binary, ...)	IOT-89						
Create Project Specification	IOT-25	Task	Closed	Lukáš Ondriga								documentation
Deployment	IOT-89	Epic	To Do				Deployment					
Installer SD card image	IOT-81	Story	To Do		As a user I want to be able to install IoTester software to a new BBB. Acceptance criteria: * SD card imageÂ which installs the IoTester firmware into internal memory of BBB * document how to install the new BBB	IOT-89						
Enable multiple digital and analog outputs	IOT-86	Story	To Do		As a user I want to use all analog and digital outputs of IoTester to be able to control ComoNeo. Acceptance criteria: * Rest API is extended so that it allows configuration of all digital and analog outputs * RTU executes the configuration according defined timing	IOT-40						
Analyze, design, implement REST API	IOT-40	Epic	To Do				REST API					
ComoNeo simulator data conversion	IOT-85	Story	To Do		As a ComoNeo tester I want to be able to take the data for ComoNeo simulator and configure with the IoTester Acceptance criteria: * Robot framework keyword which will load configuration from ComoNeo fpga simulator and configures IoTester via Rest API ComoNeo Simulator input data description: [https://git.kistler.com/comong/comong-software/tree/master/Core/lib/Fpga/Simulator] ComoNeo Simulator input data examples: [https://git.kistler.com/comong/comong-software/tree/release-3.0/Testing/RestApi-Robot/Setups/2molds/ApplicationFiles/Simulator] [https://git.kistler.com/comong/comong-software/tree/master/Testing/RestApi-Robot/Setups/8c1p/ApplicationFiles/Simulator] Â Â	IOT-40						
RTU IoTester analog output	IOT-84	Story	To Do		As a user I want to generate a defined digital output in real time. Acceptance criteria: * PRU process a message with values of digital output and analog output and sets that according timing defined in the message	IOT-36						
REST API for analog output of IoTester	IOT-83	Story	To Do		As a user of IoTester I want to be able to set the analog and digital outputs. Acceptance criteria: * IoTester Rest API provides a call which allows to set digital and analog outputs of IoTester * the RestAPI handler sends the data as a message to RTU HINT: The handler can prepare the data in a "RTU friendly" form.	IOT-36						
Create a test for ComoNeo analog input	IOT-82	Story	To Do		As I user I want to generate analog output on IoTester and test the behaviour of ComoNeo firmware. Acceptance criteria: * Test sets the measurement start of the ComoNeo to a pin connected to IoTester * Test sets the analog output values to the IoTester (e.g. in 10 secondsÂ sets 10 different values) * Test starts the measurement with digiital output of IoTester * Test checks the values using cursor in ComoNeo web application (see the attachment)	IOT-36						
Test analog inputs on ComoNeo	IOT-36	Epic	To Do		As a user I want to be able to test an analog output on IoTester to be able to test analog input of ComoNeo. Acceptance criteria: * test in robot framework: ** configures IoTester to send an analog signal ** checks if the signal was measured by ComoNeo		ComoNeo Analog Inputs					
Manage Kistler resources for PCB design	IOT-53	Task	Closed	Lukáš Ondriga						IOT Sprint 3		

Create Document for Tasks Managment	IOT-52	Task	Closed	Stanislav Širka						IOT Sprint 3		documentation
Presentation for Sprint 3 End	IOT-79	Task	Closed	Stanislav Širka						IOT Sprint 3		other
Close Sprint 2	IOT-50	Task	Closed	Stanislav Širka						IOT Sprint 3		
Create Document for Jira Changes	IOT-51	Task	Closed	Stanislav Širka						IOT Sprint 3		documentation
REST API Prototype	IOT-10	Story	Closed	Tomáš Bujna	As a user of IOTester I want to have interface to set the Como digital input to be able to configure IOTester. Acceptance criteria: * working webserver on beagleboard * implemented simple post request with value of digital input (0 or 1) * post request execution is logged to the console	IOT-2				IOT Sprint 3	3.0	
Robot Framework LIB	IOT-11	Story	Closed	Marián Ján Franko	As a test developer I want to have a library to use IOTester Acceptance criteria: * python module * keywords to set Como digital inputs are implemented HINT:Â implementation of the keywords are POST requests to the IOTester POST request is implemented inÂ http://jira.kistler.com/browse/IOT-10	IOT-2				IOT Sprint 3	5.0	
Prepare Document for Board Design	IOT-49	Story	In Progress	Miroslav Sabo	As a hardware engineer, IÂ want to create document for board design, so that we can use it as a guideline for creating final design of our new board.Â	IOT-1				IOT Sprint 3	8.0	
Design REST API	IOT-42	Story	To Do		As a user of IoTester I need the documentation of REST API to be able to use this interface. Acceptance criteria: * REST API is not ComoNeo specific * REST API enables to set digital and analog outputs of IoTester * Documentation of REST APIÂ Â Hint: Analyse the data used in ComoNeo software simulator: [https://git.kistler.com/comong/comong-software/tree/master/Core/lib/Fpga/Simulator] Various configurations of software simulator are available here in ApplicationFiles/Simulator folders: [https://git.kistler.com/comong/comong-software/tree/master/Testing/RestApi-Robot/Setups] Â	IOT-40						
Port IoTester specification to Jira	IOT-54	Task	Closed	Lukáš Ondriga						IOT Sprint 3		
Implement REST API	IOT-43	Story	To Do			IOT-40						
Decide on Our Guidelines	IOT-29	Task	To Do									other
Refactoring HW for better compactness	IOT-1	Epic	To Do				IoTester Refactoring					
Design Boards as modules	IOT-4	Story	To Do	Miroslav Sabo	As a hardware engineer, IÂ want to design board in modules block, so that each module has aÂ particular functionÂ and could be possible to replace it with extended function.Â Acceptance criteria: # Detail block schematic of modules and connection between them # Created design user stories for each modules	IOT-1					13.0	
New Housing Design	IOT-5	Story	To Do	Miroslav Sabo		IOT-1					3.0	
Create a Test	IOT-12	Story	Closed	Marián Ján Franko	As a user I want to test the ComoNeo digital input. Acceptance criteria: Test configures IoTester (library for IoTester configuration will be implemented in different user story) Test checks the ComoNeo web application if the digital input was set. Â	IOT-2		IOT Sprint 1	IOT Sprint 2	IOT Sprint 3	13.0	
Analyze Board	IOT-3	Story	Closed	Miroslav Sabo	As a hardware engineer I need to analyse the current board to be able to make the final design. Acceptance criteria: Document the current design of the board.	IOT-1		IOT Sprint 1	IOT Sprint 2		8.0	
Close Sprint 1	IOT-48	Task	Closed	Stanislav Širka	Close sprint 1. Create sprint 2. Export tasks from Jira.				IOT Sprint 2			other
Kistler VPN Access	IOT-28	Task	In Progress	Lukáš Ondriga				IOT Sprint 1	IOT Sprint 2			other
Create Team Website	IOT-30	Story	Closed	Tomáš Bujna				IOT Sprint 1			8.0	
Print User Stories	IOT-47	Task	Closed	Stanislav Širka				IOT Sprint 1				other
Choose Web Server Technology	IOT-15	Task	Closed	Rastislav Kováč		IOT-2		IOT Sprint 1				other
Technology for Linux (Web Server)	IOT-6	Story	Closed	Rastislav Kováč	As a developer I want to select frameworks/technologies to be able to write REST API for BeagleBone Black real time unit configurations. Acceptance criteria: Document 3 alternatives with pros and cons.	IOT-2		IOT Sprint 1			5.0	

Create Methodic for Methodics Document	IOT-45	Task	Closed	Stanislav Širka				IOT Sprint 1					documentation
Export Data From Jira - Sprint 1 Start	IOT-46	Task	Closed	Stanislav Širka				IOT Sprint 1					other
Add Tasks to Jira	IOT-20	Task	Closed	Stanislav Širka	Subtasks left: * Create Sprint - done * Add tasks to Sprint - done * Add task owners - done			IOT Sprint 1					other
Share Google Drive	IOT-24	Task	Closed										other
Write TP1 Requirements	IOT-32	Task	Closed	Stanislav Širka									other
Study SCRUM	IOT-33	Task	Closed	Stanislav Širka									other
Create Team Chat	IOT-23	Task	Closed										other
Update Trello	IOT-31	Task	Closed	Stanislav Širka									other
Decleration Documents	IOT-27	Task	Closed										documentation
Study Poker Cards	IOT-34	Task	Closed	Stanislav Širka									other
Study Story Points	IOT-35	Task	Closed	Stanislav Širka									other
Create Team GIT	IOT-21	Task	Closed										other