Université Toulouse III – Paul Sabatier
L3 Informatique – ISI

Continental Automotive

Tuteur universitaire : Joseph Boudou
✉ boudou@irit.fr

Maître de stage : Stéphane Bride
stephane.bride@continental-corporation.com ✉

Development of a platform for automated testing
Antoine de Roquemaurel – June 5, 2014

In my 3rd year's Licence of computer science at Toulouse III University – Paul Sabatier, I have choice between a TER or a training. I chose the second one because I prefer go in a company, in fact search don't attract me. I has an opportunity of training in the development of a tests platforms of embedded software.

Continental is a leading German automotive manufacturing company who has $174,000$ employees in the world. The company is specializing in tires, brake systems, automotive safety, powertrain, ...
I work in the Verification & Validation team, it is in charge of regression and integration testing, it develop automatics scripts tests before the project delivery.

One year ago, a need was specified: test the integration of a « plugin », a piece of code in binary forms. The plugin is in interface with Continental software inside engine computer control. The Verification & Validation team must develop a tests platform for plugin integration testing.

When I arrived, this platform call GreenT, was partly designed. So, I arrived in designing and coding phases : coding, because the deadline is near, but designing too because pieces of platform was to build.

For good integration testing of the plugin, client provided an Excel file called Walkthrough containing the variable list and their specifications. Tester will add columns in file to specify the test functions. Our platform will be able to analyze the file and could generate test case. Generated files will remotely run on a test workbench : a simulator of car environment around controller, so the tester can verify reactions controller relative to the different conditions who can happen.

My training is not ending, it continue in July, but today my work is already beneficial, to the company with my new look in the existing design, my help in design and development of parsing and generation. And also personally, in technical view point with designing when I found solutions or when I developed model with team members who teach me a lot of things. In addition, the human point of view with the team work, the weekly reunions who can teach me to synthesize and my work.

This training is helpful and encourages me to continue with the "Development Logiciel" master, I think this part of the computer is the most interesting.