

Abstract

This thesis aims the creation of one part of a module, which can be used for writing and running PIL tests. First the definition of PIL testing is described and the part of the industry in which it can be used. Then the related demands are estimated and the steps of the project are clarified. After that the details of the solution, starting with the construction of the high level programming language are defined. In this part the syntax of the grammar and the specific commands are constructed.

The creation of the grammar is followed by the immensely significant description of code generation. The program – written in the created language – is transformed into hexadecimal number sequence, which is interpretable to the controller. This process is detailed in chapter 4. For this the definition of a set of commands, and the concrete mechanism of the translation is necessary.

Without a proper communication module, the hexadecimal byte code cannot be downloaded to the target consequently the execution of the program is impossible. The development of this module is described in chapter 5.

Finally those parts of the project, which were not created in lack of time are presented. In this part the expansion and modification possibilities are mentioned and the performed work is summarized.