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An experience of e-assessment in an introductory course on computer organization

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Abstract

This work describes how the *CTPracticals* Moodle module can be used for e-assessment in an introductory course on computer organization, where the practical content consists of the design and simulation of a basic CPU implemented using Logisim, a schematic-based educational tool for the design and simulation of digital circuits. A previous work extended this module to support the verification of codes written in Matlab. This work shows how this feature can be exploited to invoke external tools, i.e. Logisim, not only for the automatic verification of the student submissions, but also for a detailed analysis of the results that improves the assessment. The paper will also present some customization of Logisim that was necessary to improve its batch mode simulation in order to add some useful options that make it generate a richer output format.

Keywords:
Automatic assessment; computer organization; Logisim; Moodle; *CTPracticals*

Demonstration site and acknowledgements

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