

Advisor's review of bachelor thesis

Thesis author: Martin Vajnar

Thesis title: ORTE communication middleware for Android OS

Advisor: Ing. Michal Sojka, Ph.D.

ORTE is a middleware for real-time communication developed at our department some years ago. It has been successfully used in several our applications and we also have reports about its use by other teams worldwide. ORTE is very portable and already runs on a wide range of platforms. In these days mobile platforms gain on popularity and porting ORTE to a mobile platform was a natural thing for us to do. Android has been chosen because of its widespread availability and Linux roots.

Mr. Vajnar is a very skilled person, especially in technical areas. He was able to work on this, quite complex, topic individually and without too much help from his advisor. He had to study and understand the internals of ORTE as well as of a Java virtual machine in order to complete this work. Besides the porting work, he found and fixed several bugs in the various parts of the middleware and improved significantly the quality of the ORTE Java bindings.

If Mr. Vajnar's work had some downsides it was sometimes a not very clear way of expressing his thinking in a written form. It had nothing to do with the foreign language of the thesis. Fortunately, the technical work was finished early enough to leave time for rewriting the most problematic parts. It was sufficient to let the student know about how to better structure the text and he was able to rewrite it in a much better way.

Another "problem" of the thesis is that the student actually did more useful work than he reports in the thesis. For example in order to debug a problem, he created a diagram of relations between all data structures used in the middleware. This will be very helpful for all the developers working with ORTE, but it will be harder for them to learn about the existence of such diagram.

In summary, I am very satisfied with the results and grade the work as **excellent** (A).

Prague, June 6, 2014

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