

Review of Master's Thesis

Student: Krajňák Martin, Bc.
Title: Automated Generation of Tests for GNOME GUI Applications Using AT-SPI Metadata (id 23191)
Reviewer: Smrčka Aleš, Ing., Ph.D., DITS FIT BUT

1. **Assignment complexity** **average assignment**
The goal of the thesis was to study and implement automated GUI testing exploiting assistive technologies. The goal has been fulfilled on GNOME applications.
2. **Completeness of assignment requirements** **assignment fulfilled**
3. **Length of technical report** **in usual extent**
The master's thesis consists of approx. 90 pages.
4. **Presentation level of technical report** **85 p. (B)**
The technical report is well written. Chapters and sections contain all expected content and are structured so that a reader has no problem understanding it. I would appreciate more details of state-of-the-art especially in automated visual testing.
5. **Formal aspects of technical report** **90 p. (A)**
The report is also written in a good language. I did not encounter any problem worth mentioning.
6. **Literature usage** **85 p. (B)**
The bibliography consists of several scientific papers and reference manuals of mentioned tools and techniques.
7. **Implementation results** **75 p. (C)**
The developed program has been demonstrated to me by the student. The program works as expected and is able to be used not just for the applications on which it has been demonstrated but for other GNOME applications as well. Considering the source codes, I have a problem with insufficient documentations and comments. Moreover, no source files includes a header so that nobody can be sure if it is taken from another project or if it is original content of the author.
8. **Utilizability of results**
The program can be used for blind test generation of GUI applications compatible with GNOME AT-SPI technology.
9. **Questions for defence**
 - Is there a plan for further development of the test generation tool?
10. **Total assessment** **85 p. very good (B)**
The technical report is well written, the program is functioning and can help developers to easily start with testing their GUI applications.

In Brno 29 June 2020

Smrčka Aleš, Ing., Ph.D.
reviewer