

The Theorem Prover Museum

Conserving the System Heritage of Automated Reasoning

Michael Kohlhase
Computer Science, FAU Erlangen-Nürnberg
<http://kwarc.info/kohlhase>

April 7, 2017

Abstract

1

EdN:1

1 Introduction

Theorem provers are software systems that can find or check proofs for conjectures given in some logic. Research in theorem proving system started with the logical theorist 1955 and has led to a succession of systems since.

Theorem provers are complex software systems that have pushed the envelope of artificial intelligence and programming, and as such they constitute important cultural artefacts.

With the current wave of retirements of the original principal investigators there is good chance that the systems are lost, when their group servers are shut down. This web site aims to preserve the ones we can still get our hands on. This idea is compatible with the Software Heritage initiative [SH], and contributes since it is based on GitHub repositories.

The term “museum” may be sound bit ambitious, since the exhibition and didactic interpretation of the theorem provers is beyond our scope (and perhaps abilities). But the foremost function of a museum is the conservation

¹EdNOTE: tbw

of artefacts, which is what the "theorem prover museum" project intends to do.

Note that it is not the purpose of this site to keep the theorem proving systems running (in many cases the compilers and dependencies have moved on, making this very difficult). But only to archive the source code for academic study. In particular this should lower the barrier of archiving systems here.

2 The Web Site

This site is the front-end to a collection of source code repositories for theorem provers (see below). To exhibit your system here or suggest a system for inclusion (most wanted list, systems believed lost), please contact Michael Kohlhase. Contributors, community/contact, project/issues.

3 Call for Contributors

4 Conclusion

References

- [SH] *Software Heritage*. URL: <https://www.softwareheritage.org/> (visited on 04/07/2017).