

# Brief report of the results of the experiments on the randomly generated set of problems without converse relations

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The tests were run on an Intel Core i3 3.3 Ghz with 12Gb RAM, running under Linux (Debian distribution, release 8.7). When ran on the randomly generated tests without converse relations, the provers were given 1 minute time.

On these problems, **HTab** (v. 1.6.0) performs much better than **Sibyl**. In fact, the number of its failures is about 30% of **Sibyl**'s ones: **HTab**'s percentage of timeouts is 1.15% while **Sibyl**'s one is 3.79%. On the other hand, **SPASS** failed to solve about 7.50% of the 4860 problems in the allowed one minute time.

The diagrams in Figures 1, 2 and 3 show the behaviour of the three considered provers on the tests without converse modalities. They analyse the relation between the percentage of failures and the problem modal degree separately in the test sets with different numbers of assertions: the sets with no assertions (Figure 1), 50% of the assertions w.r.t. the basic set (Figure 2), and the basic set itself (Figure 3).

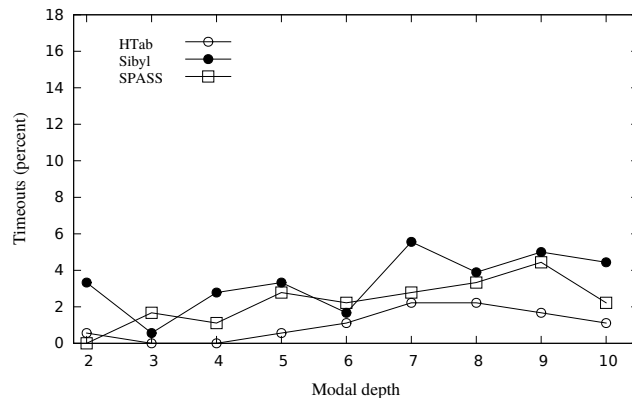


Figure 1: No assertions at all

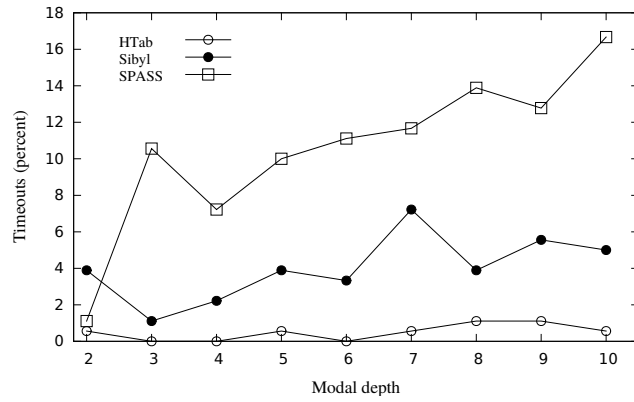


Figure 2: 50% assertions

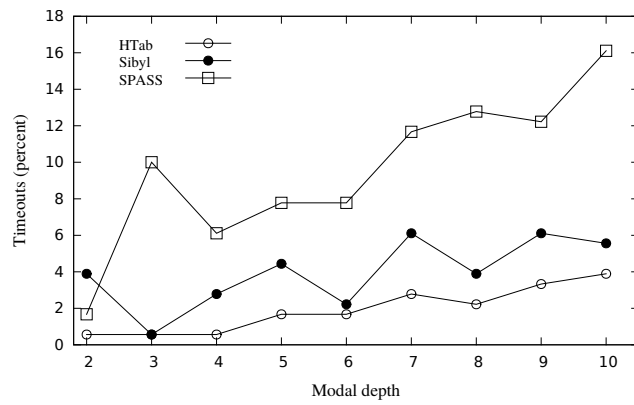


Figure 3: The basic set (100% assertions)