



Dipl.-Ing. Philipp Lengauer
Institut für Systemsoftware

Tel.: +43 732 2468-4362
Fax: +43 732 2468-7138
philipp.lengauer@jku.at

Bachelor's Thesis

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AntTracks Support for Hotspot's Concurrent Mark & Sweep Collector

AntTracks is a VM allowing users to trace object allocations and object movements for the entire application life cycle by logging them into a file. An offline post-processing tool can then parse the trace and reconstruct the heap for any point in time. Currently, the AntTracks VM only supports two garbage collectors, i.e., the ParallelOld GC and the G1 GC.

The goal of this thesis is to extend the AntTracks VM to also support the Concurrent Mark & Sweep GC. Consequently, the GC's implementation must be extended to log the according events to the trace file, so that the trace file can parse them and reconstruct the heap. The post-processing tool should only be changed if absolutely necessary.

The final version of the written thesis must be submitted not later than 22.09.2016.

Supervisor: Dipl.-Ing. Philipp Lengauer

Student: Christian Niederer