

MMTk and V8

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What?

- MMTk (Memory Management Toolkit) is a library for GC design and analysis, since 2006.
- We are porting MMTk to V8

Why?

- **For researchers:**

- MMTk has been very widely used, but is practically tied to a single language (Java) and a single VM (Jikes RVM)
- Moving beyond Java allows analysis of other languages (eg JavaScript)
- Possibility for greater impact

- **For V8:**

- Much greater engagement of the MM research community may lead to better GC for V8
- Make V8 more agile w.r.t. memory management

How?

- Make MMTk available as a shared library
 - MMTk is being re-written in Rust
- Refactor V8's treatment of memory management

Who?

- Work has started at ANU with a great deal of assistance from Hannes, Ulan and Michael
- We hope to get strong community engagement with the project (as we did for the original MMTk)

We're looking forward to an exciting new chapter in memory management research!