

Procedure calling standards

On the ARM, for example:

- Arguments should be placed in `r0-r3` before a procedure is called.
- Results should be returned in `r0` and `r1`.
- `r4-r8`, `r10` and `r11` should be preserved over procedure calls, and `r9` might be depending on the platform.
- `r12-r15` are special registers, including the stack pointer and program counter.

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Since a procedure call instruction may corrupt some of the registers ($r0-r3$ and possibly $r9$ on the ARM), we can synthesise edges on the clash graph between the corrupted registers and all other virtual registers live at the call instruction.

As before, we may also synthesise MOV instructions to ensure that arguments and results end up in the correct registers, and use the preference graph to guide colouring such that most of these MOVs can be deleted again.