Effective Function Merging in the SSA form

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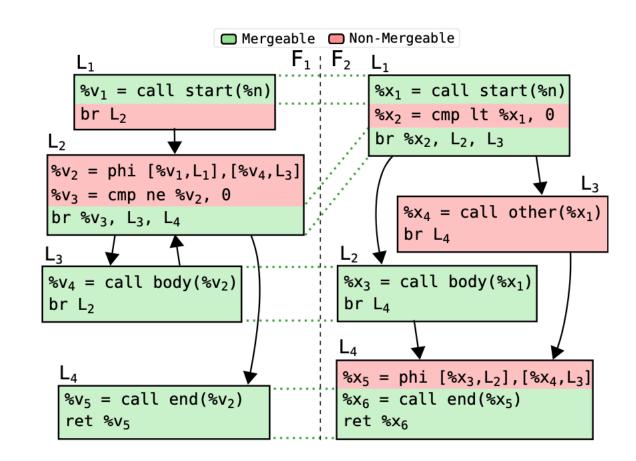
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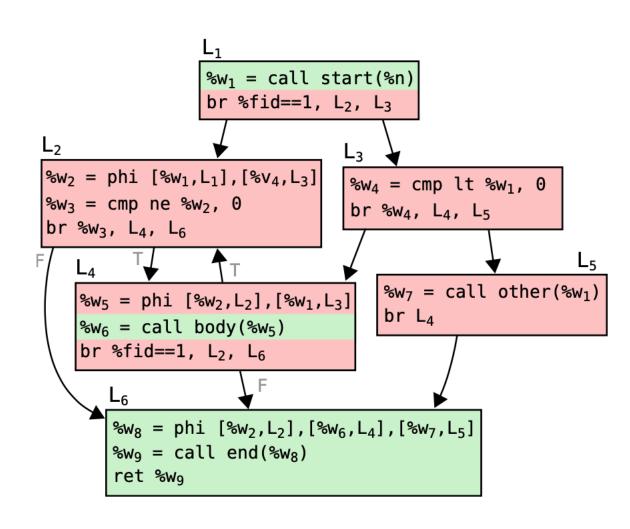
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Formals: Absent

What is the study about?

- Embedded systems have hard-memory space limitations.
- In order to reduce the code size we can merge functions
- We can do it in LLVM IR
- PHI nodes problem





What is the study about?

Input
Functions

Reg2Mem | Pre-Processing

Linearization | Core
Alignment | Algorithm

CodeGen | Clean-up

Simplification | Process

Before (FMSA)

SalSSA

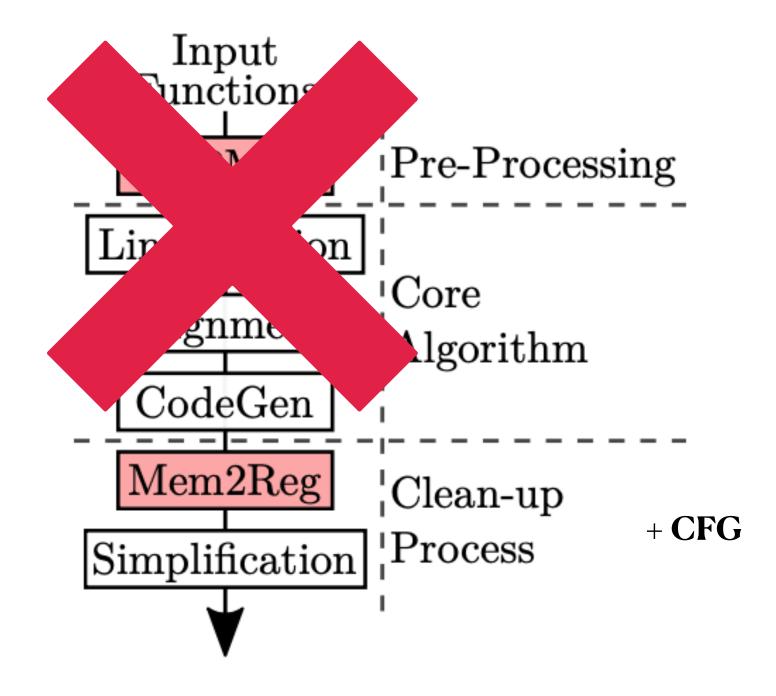


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Advantages

- Lots of pictures, figures and code samples
- Text formatting
- LLVM IR is widely known
- Explicit contribution and clear motivating example
- Comprehensive evaluation

Disadvantages

- No formal proof
- Tool or program is absent or hidden
- Narrow scope (only for LLVM IR)
- SalSSA is not a separate IR

Conclusion Accept