ANGIE
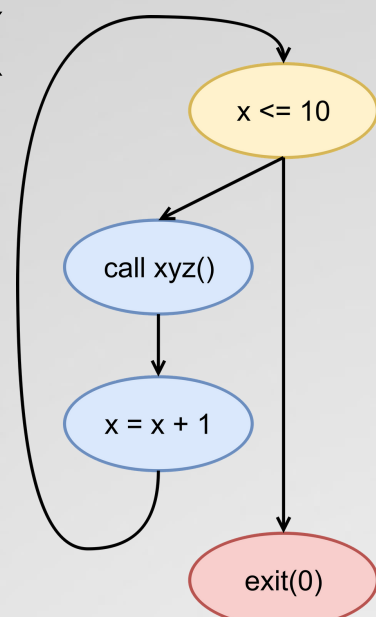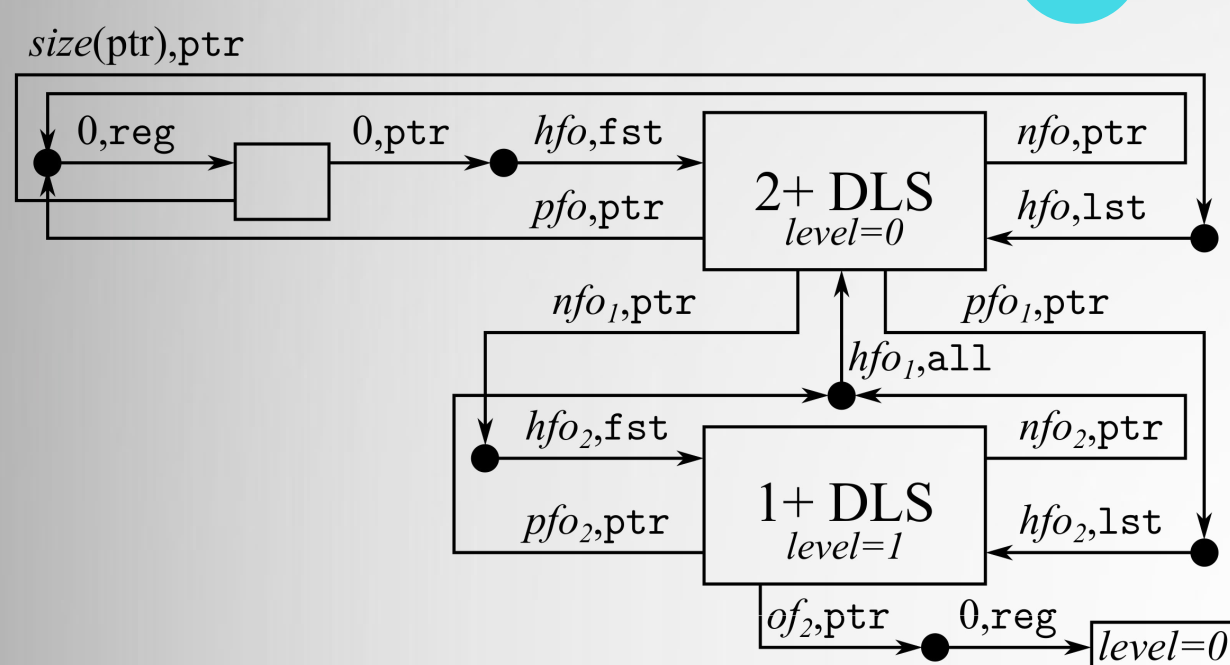
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A FRAMEWORK
FOR STATIC
ANALYSIS
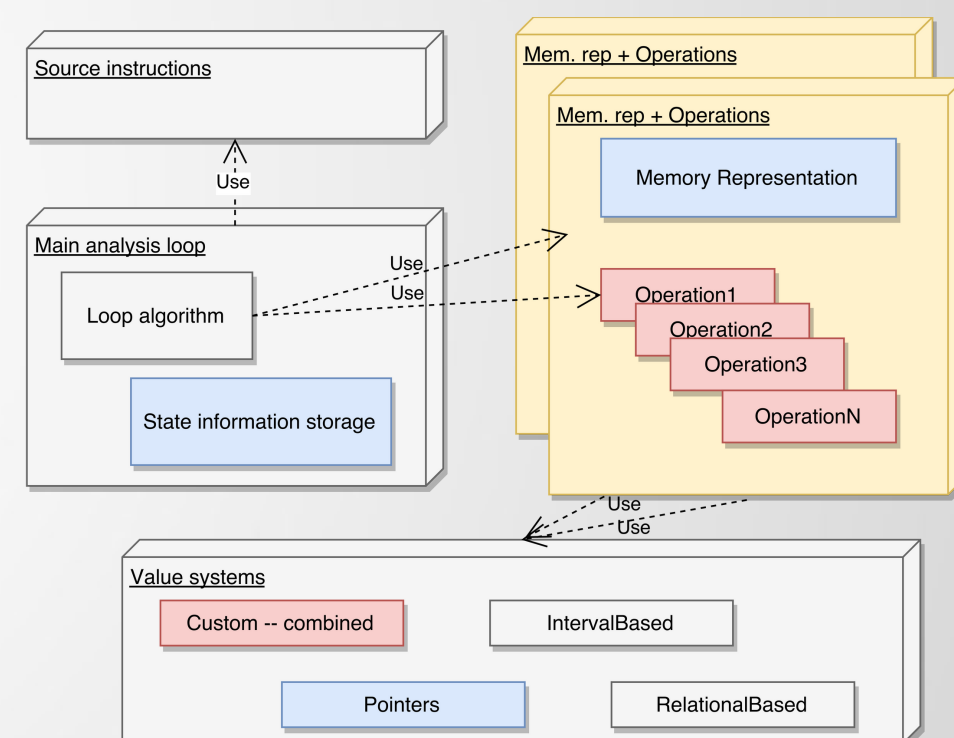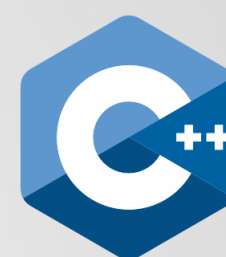TOOLS

Based on LLVM Intermediate Representation

Coded in modern C++

Symbolic Memory Graph based analysis

- Light-weight object wrappers for (LLVM) front-end structures: control flow graphs, types, functions, ...
- Value Container: an interface for abstract value operations, designed for composition
- Built for abstract interpretation while taking other approaches into consideration
- Modern C++, focus on Cpp Core Guidelines: using smart pointers, self-explanatory names, ...
- Range-v3 libraray for easier handling of range algorithms and transformations

Done:
- Direct support for most LLVM IR critical constructs, rest can be simplified via pre-run transformation passes
- Symbolic Memory Graphs without abstraction
- Basic intrinsic functions for analysis and debugging

In progress:
- Basic doubly linked list abstraction for SMGs
- Simple analysis implementation example and tutorial

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