## Research Report

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## review of the issues to solve/What I needed to do

- Needed to know how existing programs perform the memory/dependency analysis
- Needed to know its weakness
- Needed to figure out where the memory trace could step in and help
- Others
  - Lulesh (using INRIA PPCG)
  - PNNL benchmark

## Progress on PoCC Memory Trace

- Learned how SCoPs are represented by polyhedron in PoCC
- Looking into the dependence polyhedron
  - The code uses the *dependence matrix* to approximate
    (?) dependences
- Thought that eventually need to come up with a case containing pointers (within a scop?)
- Still No Signficant Progress
  - Still in the process of understanding how existing dependence analysis is done

## The plan (remain the same as previous two :( )

- Getting to know how existing programs perform the memory/dependency analysis
- Getting to know its weakness
- Think where the memory trace should step in and help