



# SI2-SSI: Collaborative Research: A Sustainable Infrastructure for Performance, Security, and Correctness Tools

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## Two foundational software tools

- HPCToolkit: a performance measurement, attribution, and analysis tool suite
- Dyninst: a binary analysis and instrumentation tool suite

## Add multi-threading to our tools to process large applications

Analyze a **8.2GB** shared library from TensorFlow

took **22.5 minutes** in serial, and

took **2.5 minutes** with 32 threads

## A data race detector for OpenMP programs