introduction to performance tools seminar

Introduction to Performance Tools (tutorial at citutor.org)

This can be a 1-2 hr session looking through the scenarios and sections of the course above (it's a 1/2 day if we do everything in-depth with all the quizzes). If there are topics we want to pursue further, the links below will provide more information. We'll see how the group interest develops through the first tutorial because it covers several performance tools.

1.
    a. gprof/gcov discussion with the eclipse wiki pages tutorial info below
    b. mpiP profiling (probably missing from the Intro to Perf. Tools tutorial , so we have it here)
    c. psinv -v # iforge login or compute node

- PLSQR case studies (Blue Waters PRAC team)
    1. Cobalt runs with TAU
    2. Blueprint MPE, Jumpshot, and Perfsuite
    3. compiler optimizations comparison
        a. compiler reports example from HPL - vectorization

- Eclipse & performance tools
    1. gprof, gcov
    2. valgrind w/ stream benchmark

- POINT project
    1. Perfsuite presentation
        a. non-default configurations
        b. profiling w/ src line numbers (similar to eclipse + gprof)
        c. counting or profiling java code
    2. TAU tutorial
        a. slide 26-27: steps to generate profile
        b. slide 29-32: compiler based instrumentation
        c. slide 39-58: gpu profiling and TAU
    3. paratools live image

- older ppt presentation
    1. debug examples with register use , slides 46-49
    2. matmul loop tunings discussion , slides 41-50
    3. basic concepts