

TAU Commander Quick Reference Guide
[<http://www.taucommander.com/>]

Most common command/aliases:

tau <compiler> Execute compiler command
- Example: **tau** gcc *.c -o a.out
- Alias for '**tau build** <compiler>'

tau <program> Gather data from a program
- Example: **tau** ./a.out
- Alias for '**tau trial create** <program>'

tau show Show data from the most recent trial
- An alias for '**tau trial show**'

tau <command> --help Show all of the options for <command>

tau [cmd] <subcmd> [options]

configuration commands:

application
measurement
project
target
trial

Other commands:

build build/instrument programs
dashboard Show all project
help Show help
initialize Initialize TAU Commander
select Select next experiment.

tau application <subcmd> [args]

Control application configurations.

subcommands: **create, edit, delete, list**

tau application create
<application_name> [arguments]

tau application edit
<application_name> [arguments]

tau application delete
<application_name>

tau application list

create and **edit** have the same [arguments] listed below:

--cuda [T/F]
--linkage [static,dynamic]
--mpi [T/F]
--new-name <new_name>
--opencl [T/F]
--openmp [T/F]
--pthreads [T/F]
--select-file <path> Specify Selective instrumentation file
--shmem [T/F]
--tbb [T/F]

tau measurement <subcmd> [args]

Control measurement configurations.

subcommands: **create, edit, delete, list**

tau measurement create
<measurement_name> [arguments]

tau measurement edit
<measurement_name> [arguments]

tau measurement delete
<measurement_name>

tau measurement list

create and **edit** share the [arguments] listed below:

--callpath [depth]
--metrics <METRIC> e.g. TIME
PAPI_FP_INS, (default: TIME)
--compiler-inst [mode] modes:
always, fallback, never
--sample [T/F] use event-based sampling
--source-inst [mode] modes:
automatic, manual, never
--callsite [T/F] record event callsites
--comm-matrix [T/F] record point to point communication
--cuda [T/F] measure cuda via CUPTI

```

--io [T/F] measure time in POSIX io
calls
--mpi [T/F] measure time in MPI calls
--new-name <new_name>
--opencl [T/F]
--openmp library options: ignore
opari, ompt
--shmem [T/F]
--throttle [T/F]
--throttle-num-calls [count]
--throttle-per-calls [us] (us=
microseconds)
--heap-usage [T/F]
--memory-alloc [T/F]
--profile [T/F]
--trace [T/F]

```

tau trial <subcmd> [args]

Create and manage experiment trials.

Subcommands: **create, delete, export, list, show**

```

tau trial create [args] [-
-]<cmd> [command_arguments]

```

Run an application under a new experiment trial.

positional arguments:

```

<command> Executable command,
e.g. './a.out'
[command_arguments] Executable
arguments

```

```

tau trial delete [trial_number]

```

```

tau trial export [trial_number] initialize (or init)

```

```

tau trial list

```

```

tau trial show [trial_number]
[trial_number] ... [arguments]

```

Display trial data in analysis tool.

optional arguments:

```

--profile-tool [profile_tool]
specify profile report tool

```

```

--trace-tool [trace_tool]
specify trace report tool

```

tau build <command> [arguments]

Instrument programs during compilation and/or linking.

positional arguments:

```

<command> Compiler or linker
command,e.g. 'gcc'
[arguments] Compiler arguments

```

eg. **tau build g++ -O2 -c file.cpp**

some compiler commands:

```

gcc GNU C compiler
g++ GNU C++ compiler
gfortran GNU Fortran compiler

```

Enter: **tau build --help** for full

compiler list

initialize (or **init**)

```

tau initialize [arguments]

```

Initialize TAU Commander.

```

--application-name <name> Name
of the new application to be initialized

```

```

--project-name <name> Name of the
new project to be initialized

```

Nearly all application/measurement and target options are accepted at initialization. See appropriate section for available options. Measurement options are typically used with tau init.

e.g. **tau init --mpi T**

```

tau select [project] [target]
[application] [measurement]
[arguments]

```

Select project components for the next experiment.

positional arguments:

```

[project] Project configuration name
[target] Target configuration name
[application] Application config name
[measurement] Measurement config name

```