

Guideline for adding new benchmark

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go/new-chrome-benchmark

Target audience

If you are a chromium developer who is looking to add a new benchmark, then this doc is for you.

Add test cases, not benchmarks

In 2017, chrome-speed-ops@ team are changing the way we support benchmarks. To better manage the complexity of our benchmarking infrastructure, we derive a set of 12 benchmarks harnesses that are supposed to support most of Chrome performance test cases. In general, we expect users to add test cases to any of those existing harnesses instead of coming up with a new benchmark design.

How do I find information about those harnesses and how to use them?

Note: as some of the benchmark harnesses are having on-going work to harden their APIs, this may affect your timeline of adding more test cases.

For details about what harnesses are supported & their status, please see this [sheet](#).

What to do if my benchmark test case fits into one of the supported harnesses but the harness is in the middle of work to harden the APIs?

You should collaborate with the team who works on hardening the benchmark APIs to figure out the incremental steps that allow supporting your test cases sooner.

Another option is to create your own benchmarks using the current harness API & check it in the [tools/perf/contrib/](#) directory. It's worth noting that since we don't endorse & support benchmarking code in this directory, any APIs change to supported harnesses risks breaking your benchmark. In addition, benchmarks in this directory don't run on the [Chrome perf waterfall](#), but you can still [run them locally](#), on cluster telemetry, and on [perf trybots](#).

What to do if my benchmark test case doesn't seem to fit into any of the supported harnesses?

There are two possibilities:

- 1) Your benchmark almost fits into a supported harness, but it requires some work to extend the feature set of the harness to support.
- 2) Your benchmark needs a completely new harness.

In both cases, please contact our team at benchmarking-dev@chromium.org (or chrome-benchmarking-request@ for internal-only request). We will assist you in designing a solution for your benchmarking test cases. Please provide a one-pager explaining why this benchmark is important and who from Google is willing to sponsor the benchmark (Since Google's bot time is paying for it to run.) Provide examples of regressions that this benchmark would have caught. What was the negative impact of these regressions? If necessary, you could make a Googler-only side of the document if there is non-public information that helps us understand why we need this.

What if I'm adding a new benchmark into an existing benchmark harness?

Please contact johnchen@chromium.org or benchmarking-dev@chromium.org (or chrome-benchmarking-request@ for internal-only request) with an explanation about the change and why it is needed.

Once we agree that it is reasonable to move forward, you can write a changelist adding the benchmark. Before sending it in for review, start a pinpoint job with the changelist in it and add the link to the cl description. Also, if you can, it is useful to get the runtime from the logs of the pinpoint job and add the log message providing the runtime to the commit message. (If you need help with these steps, please reach out to me, johnchen@chromium.org, or benchmarking-dev@chromium.org.)