

bviz

Seeing what your Bazel build is actually doing

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Why was that slow?

```
$ bazel build //src:bazel-dev  
INFO: Elapsed time: 1257.064s, Critical Path: 332.60s
```



Profile



Exec log

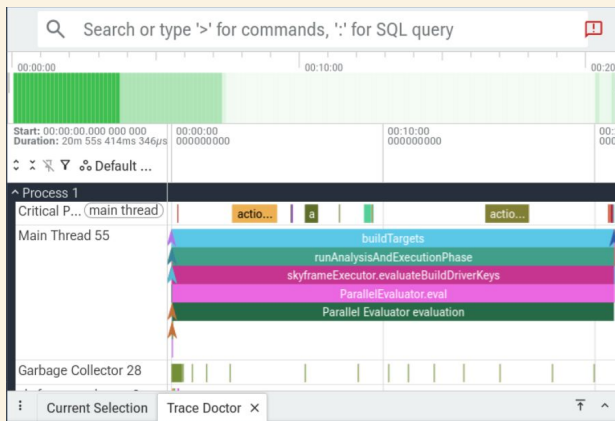


Build events

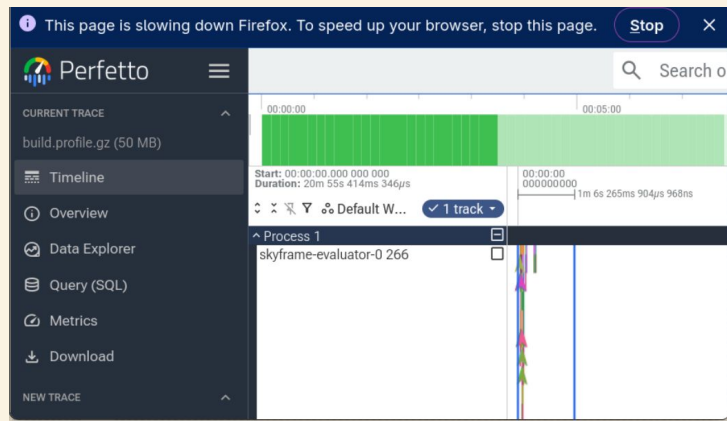


Query

Open the profile in Perfetto



⌚ Loads in ~40 s



⚠ The flame graph never loads

A ~50 MB Bazel profile is too large for it.

Same profile, bviz

~40 s

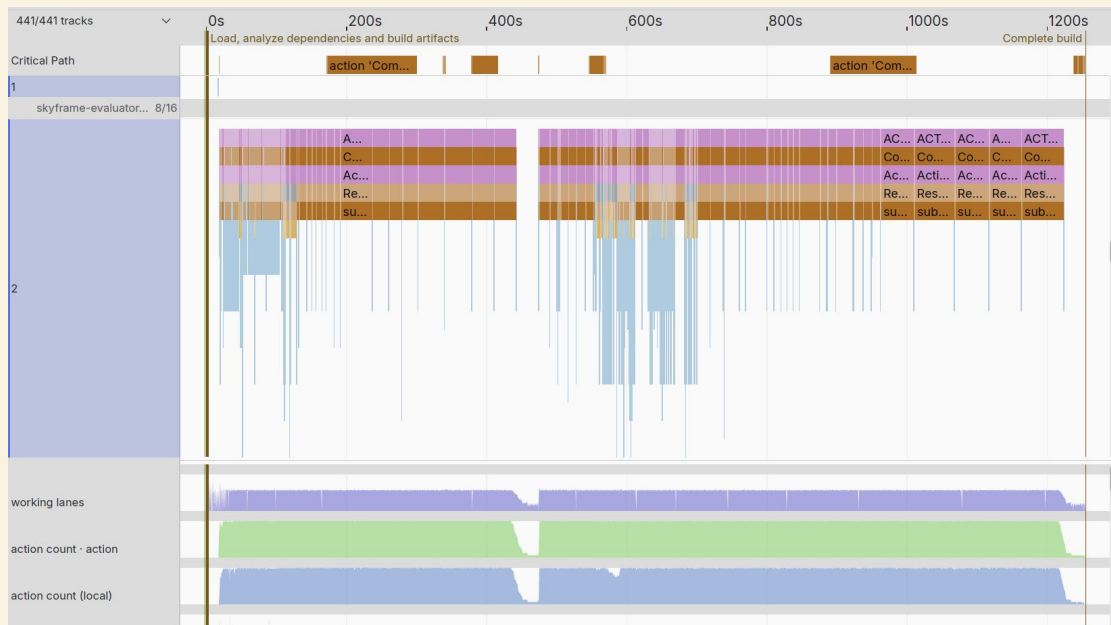
Perfetto

~1 s

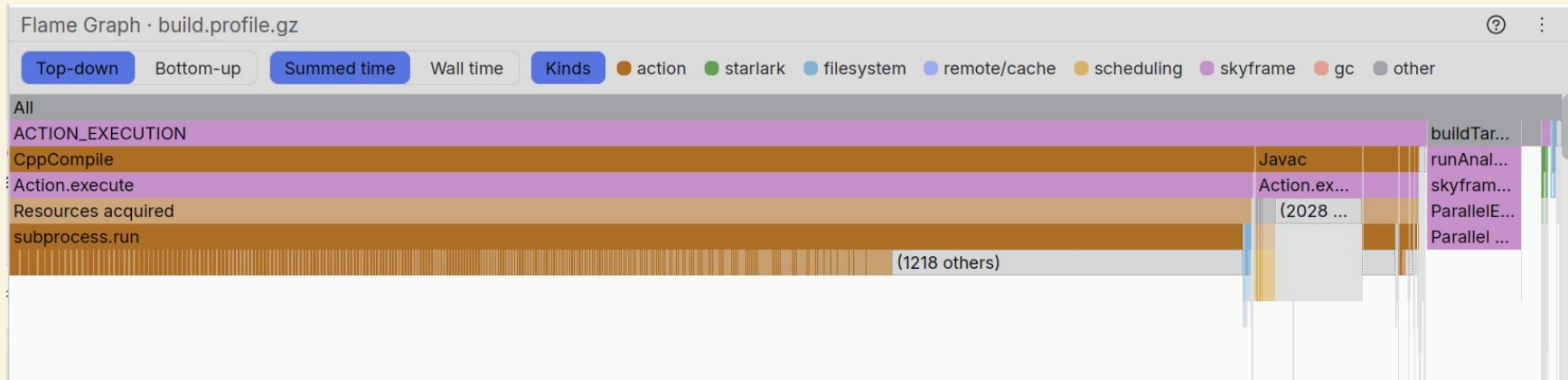
bviz

```
$ bviz --profile build.profile.gz
```

ThinkPad T14s Gen 1: Ryzen 7 PRO 4750U, 8 cores / 16 threads, 32 GB RAM, NVMe SSD;
Perfetto in Firefox 157

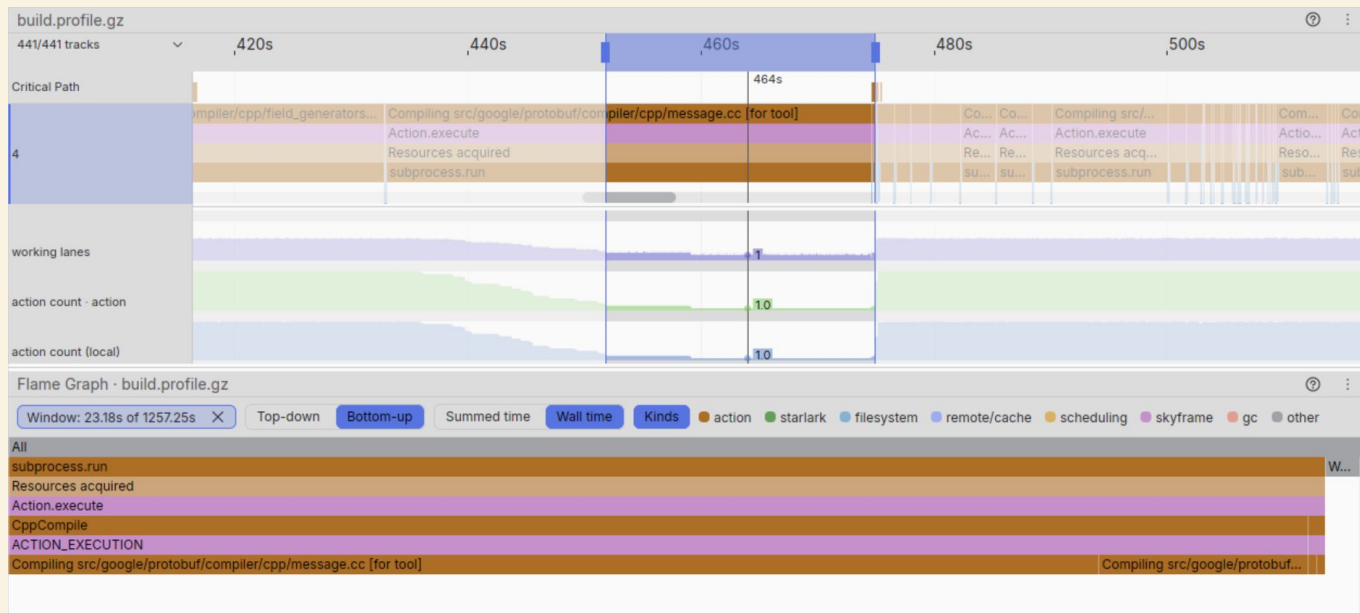


Where did the time go?



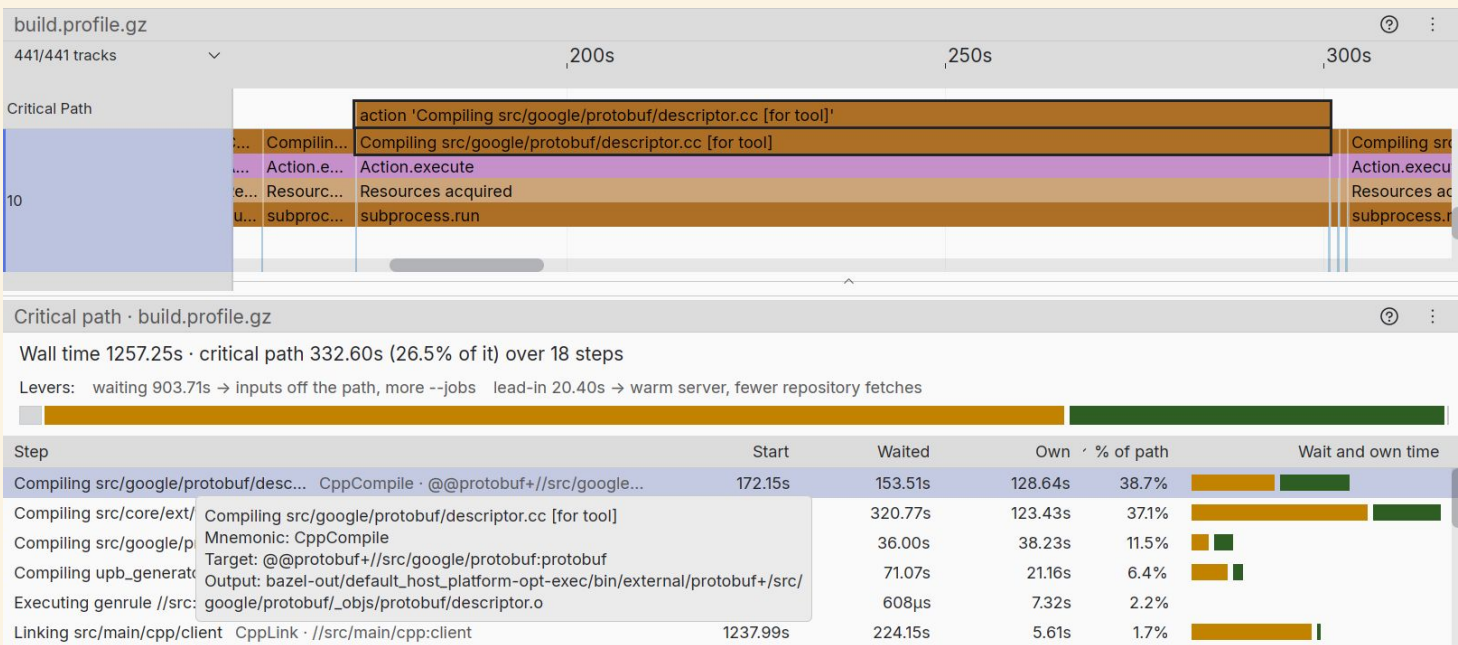
⌚ Loads in <3 s

What's the bottleneck?

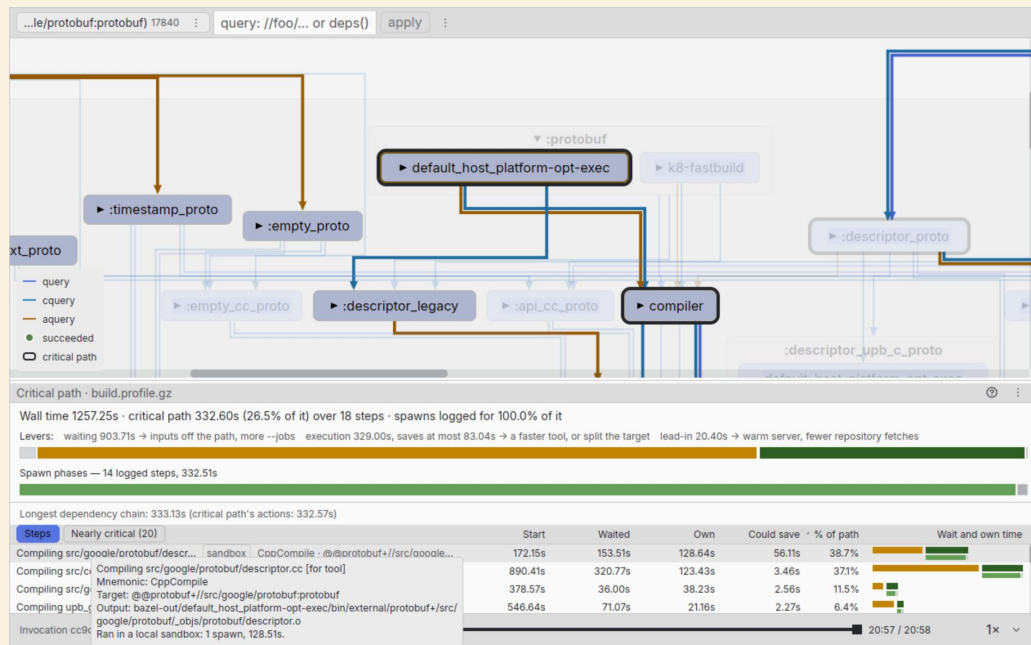


🕒 For 23 s, the build waits on `message.cc`

What's on the critical path?

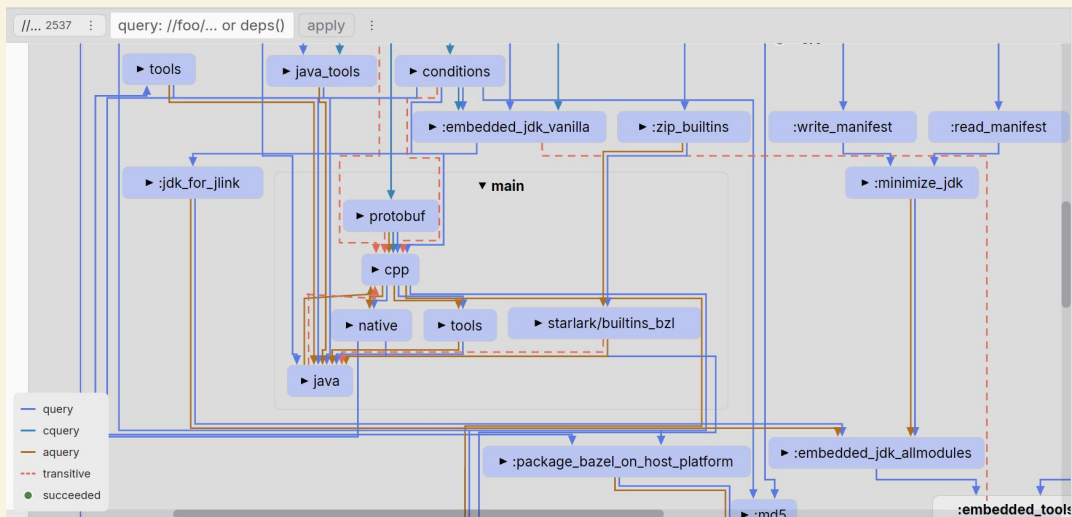


What's on the critical path?

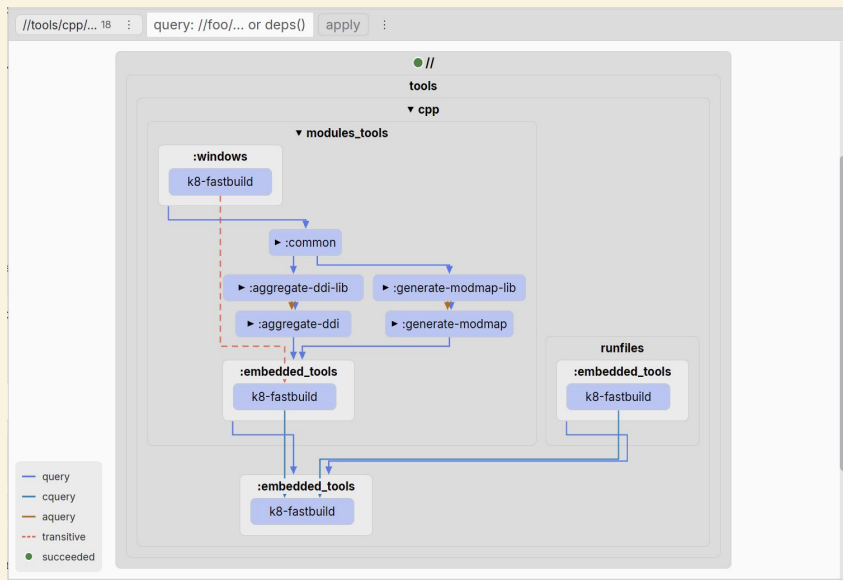


What depends on what?

```
bazel query 'deps(//src:bazel-dev)' --output=graph | dot -Tsvg  
bazel query 'rdeps(//..., //src/main/cpp:client)' --output=graph | dot -Tsvg
```

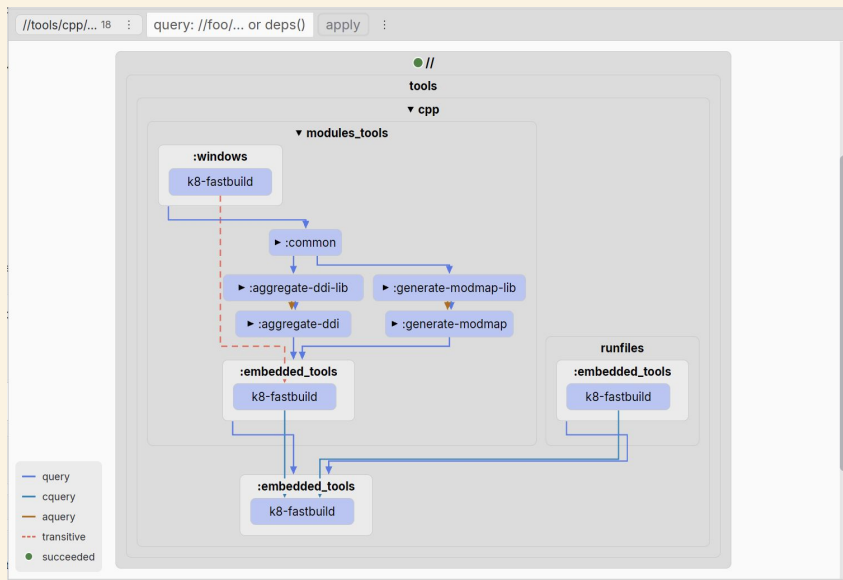


Ask the graph

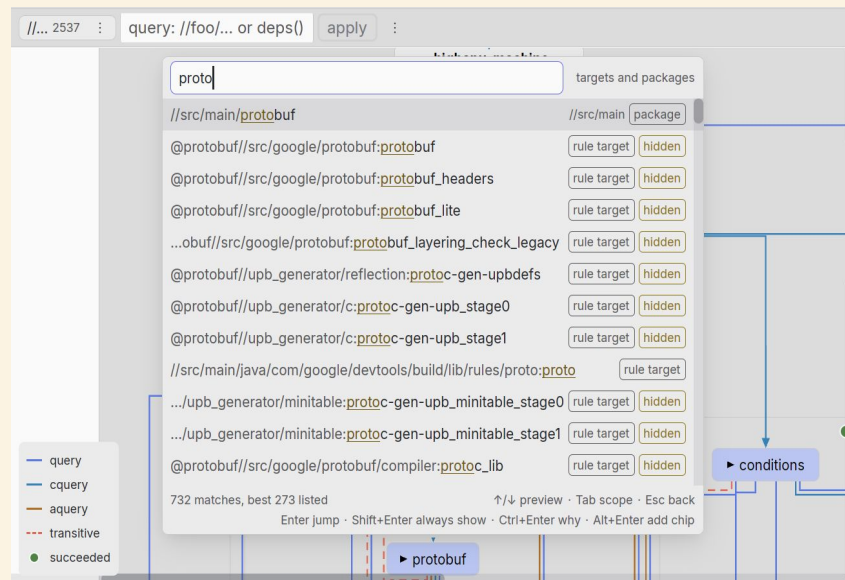


🔍 Filter in place, no re-query

Ask the graph

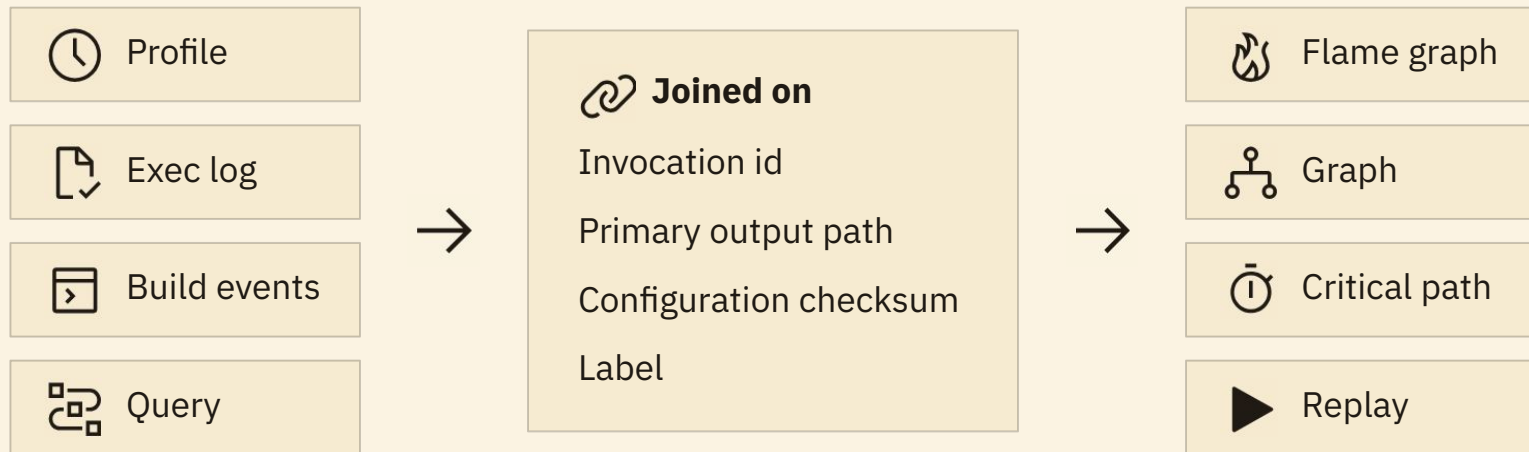


🔍 Filter in place, no re-query

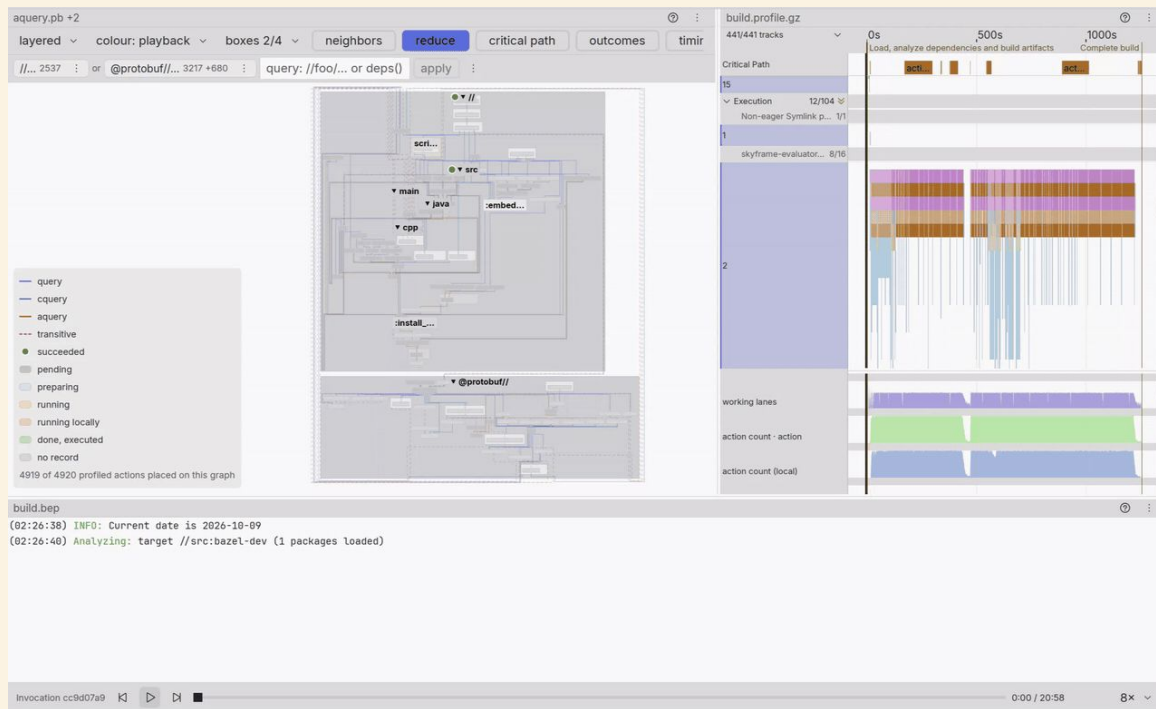


🔍 Jump to any node

The pipeline



Replay your build



Try it



github.com/yume-ag/bviz

⚠ Pre-release: expect rough edges

Roadmap

- UX improvements
- Performance
- More analyses
- Live view (?)

Wishes? Get in touch.



Thank you

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