



buildbot.mariadb.org

~starting from scratch~



The MariaDB Foundation

Supporting continuity and
open collaboration

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The good

- Existing builders and functional configuration
- Familiarity for core contributors
- Custom MTRLogObserver plugin and Cross-Reference reports
- *Insert your own*

The bad

- Out of date buildbot version 0.8 used; difficult to upgrade in place
- Using only KVM and bare-bone builds
- No support for highly desirable features like e-mail notifications, cloud/container builders, github PRs and gatekeeping
- No scalability options
- Personal grievance: many people are editing the maria-master.cfg directly on Hasky - without proper use of VCS

...And the ugly

Is under **heavy load** most of the time. Usually takes **minutes to load** a simple web page request, many git **hook requests are denied** and **builds** may be **postponed for days**, especially **before a GA release**.



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< insert screenshot here when it does load ;->



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A fresh outlook,

Start from scratch, not many reasons why we shouldn't, on Digital Ocean for now, using latest Buildbot v1.2.0:

- support for Docker (LatentWorker) and other container types
- e-mail notifications based on user db constructed from git commit msgs
- multi-master configuration
- python 3
- fresh responsive, lazy loading and modern web UI
- performance, data, modularization, reporting and API improvements
- support for AWS EC2 and other cloud services
- can still use MTRLogObsever \o/



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A couple weeks

later, with no prior buildbot or docker deployment experience:

- Fully functional master bbm1. Easy to replicate.
- 2 classical workers bbw1,2, can run normal builds. Easy to replicate.
- 2 docker-bbw1,2 hosts running builders for Ubuntu 18.04, 16.04, Debian 9, Fedora 8, CentOS 7 and OpenSUSE Leap 15. Easy to replicate.
- Watching all main upstream branches and bb-* prefixed.
- Is live now!

The screenshot shows the MariaDB CI buildbot dashboard. On the left is a dark blue navigation sidebar with the following items: MariaDB CI (pinned), NAVIGATION, Home, Grid View, Waterfall View, Console View, > Builds, About, and Settings. The main content area has a light grey header with 'MariaDB CI' and 'Home'. Below the header, it says 'Welcome to buildbot' and '6 builds running currently'. There are six build cards, each with a blue link to the build name, the word 'building', and a yellow progress indicator with a time remaining. The builds are: debian-stretch-docker/57 (21:16), ubuntu-1804-docker/55 (21:16), centos-7-docker/52 (21:16), opensuse-15-docker/52 (21:16), fedora-8-docker/52 (28:43), and ubuntu-1604-docker/54 (31:00). At the bottom, there is a section for '20 recent builds' with three blue buttons: 'debian-stretch-docker', 'ubuntu-1804-docker', and 'fedora-8-docker'.



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Why Docker containers?

- Easy (and cheap) to setup new builds (distros, compilers, etc..)
- Easy to inspect, reproduce the build env and debug locally (unlike KVMs)
- Easy to scale and spin up more builders/workers before a GA release
- Easier to share data, caches, build artefacts back and forth
- Adding a new docker host is as simple as setting up docker on a machine (Linux, macOS, Windows) and pointing to buildbot.mariadb.org

Not suitable for:

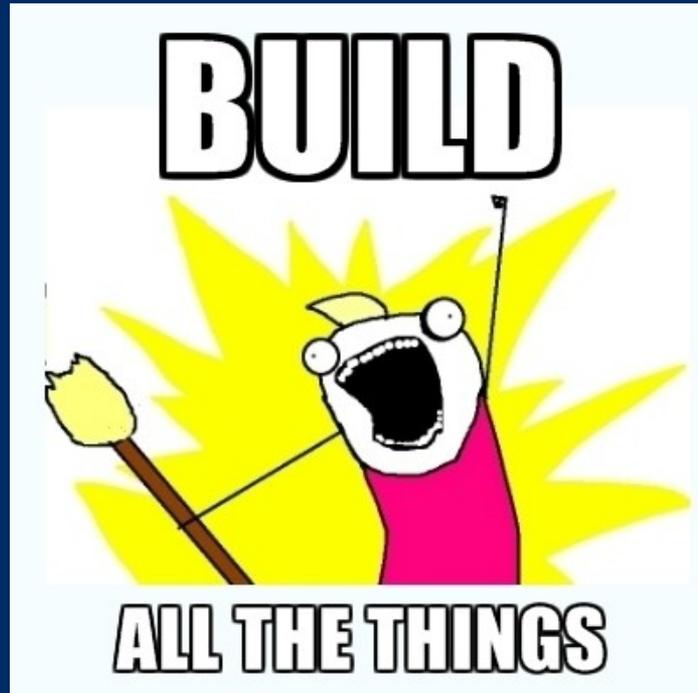
- *BSDs and macOS builds
- Windows builds
- Multiple arch testing



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Going forward

- Provide **build** feedback in less than **60 minutes** (perf tune, ccache, split tests, MTR fixes & improvements)
- Run on **GitHub PRs**
- **Gatekeeping + Fire&Forget**
- E-mail **notification** when a breaking change occurs (directly to committer and author)
- Setup **package, tarball** builders
- Setup builders with valgrind, *SAN, *lints and *static checkers
- Automate scaling, load balancing and spin-ups
- Publish repo and Dockerfiles
- Use classical git development process for maria.cfg (don't use git for backups)
- Different color for failed compile vs MTR?



~Thank you~