Docker Buildx

Docker's BuildKit CLI

CONCEPTS

Buildx is the front end for BuildKit. Only the default docker driver builds into your local image store; other drivers need --load or --push.

Dockerfile or bake file
↓ buildx build
Builder BuildKit driver
↓ --load / --push
Output local store or registry

BUILD

docker buildx build -t *<tag>* **.**
Build an image from a Dockerfile

docker buildx build --load -t *<tag>* **.**
Build and load into local Docker

docker buildx build --push -t *<tag>* **.**
Build and push to a registry

docker buildx build -f *<dockerfile> <context>*
Use another Dockerfile

docker buildx build --target *<stage>* **.**
Stop at a multi-stage target

docker buildx build --build-arg *<KEY>*=*<value>* **.**
Set a build argument

docker buildx build --no-cache .
Ignore the cache

docker buildx build --progress=plain .
Show full, unfolded build logs

docker buildx build --secret id=*<id>***,src=***<file>* **.**
Pass a secret without baking it in

MULTI-PLATFORM

docker buildx build --platform linux/amd64,linux/arm64 --push -t *<tag>* **.**
Build and push a multi-arch image

docker buildx build --platform linux/arm64 --load -t *<tag>* **.**
Build one other-arch image locally

MULTI-PLATFORM (cont.)

docker buildx imagetools inspect *<image>*
Show platforms of an image

docker buildx imagetools create -t *<new> <src1> <src2>*
Merge per-arch images into one tag

BUILDERS

docker buildx ls
List builders and their nodes

docker buildx create --name *<name>* **--use**
Create a builder and switch to it

docker buildx create --driver docker-container --use
BuildKit in a container (multi-arch, cache export)

docker buildx use *<name>*
Make a builder the default

docker buildx inspect --bootstrap
Show the current builder, starting it

CACHE

docker buildx build --cache-from type=registry,ref=*<r>* **--cache-to type=registry,ref=***<r>***,mode=max**
Registry-backed cache

docker buildx build --cache-from type=local,src=*<dir>* **--cache-to type=local,dest=***<dir>* **.**
Cache in a local directory

docker buildx build --cache-from type=gha --cache-to type=gha,mode=max .
GitHub Actions cache

docker buildx prune
Remove dangling build cache

docker buildx prune -a
Remove all build cache

BAKE

docker buildx bake
Build the default group of a bake file

docker buildx bake *<target>*
Build one or more named targets