

docker build PATH / Dockerfile reference

Short summary

docker build takes a Dockerfile at PATH and builds an image from it by running the commands inside intermediate containers. Also send the contents of the current workdir as build context to the docker daemon performing the build.

Frequent options for docker build

- t resultTag**
Sets the tag resultTag on the resulting image. This tag can contain an url, repository and name. Can be specified multiple times.
- rm true/false**
Remove intermediate containers after build.

More info in the official reference:

<https://docs.docker.com/engine/reference/commandline/build/>

Frequent Dockerfile Statements

- FROM IMAGENAME/scratch [AS name]**
Starts a new build stage building on the image specified. Specifying scratch starts a build with no rootfs. The build stage can be referenced by multi-stage builds as the specified name.
- ADD pathToFile imagePath**
Adds the file at pathToFile into the image at imagePath and commits the result. pathToFile can be an URL or can contain wildcard characters. If pathToFile is a directory its contents are copied to imagePath, not the directory itself.
- ADD ["src1", "src2", ..., "dest"]**
Adds all the source paths to dest. Needed when pathToFile has whitespaces.
- CMD COMMAND**
Specifies the default command to run in the default shell when starting a container from the result image. Is overwritten if docker run specifies arguments to the container.
- CMD ["executable", "arg1", "arg2", ...]**
Specifies the default executable and arguments to run when starting a container from the result image.
- COPY sourcePath destinationPath**
Functions similar to ADD but does not take an URL.
- COPY --from=name—index sourcePath destinationPath**
Copies the file at sourcePath in the build-stage name—index to destinationPath.

- ENTRYPOINT ["executable", "arg1", "arg2"]**
Sets the entrypoint for the container. Difference to CMD is that the commands are not overwritten when docker run specifies arguments itself. Instead the content of CMD is appended to the entrypoint.
- ENV KEY=VALUE**
Sets environment variables inside the resulting image where \$KEY is set to VALUE
- EXPOSE PORT**
Specifies that the container running the result image exposes this port. This has some practical use for use with docker run -P but otherwise is mostly documentation.
- LABEL KEY=VALUE**
Adds a label to the resulting image where key is set to value.
- RUN COMMAND**
Runs the command in a shell and commits the result.
- RUN ["executable", "arg1", "arg2", ...]**
Runs the executable with args specified and commits the result.
- VOLUME PATHINIMAGE**
Specifies that pathInImage should be a volume. Volumes persist data across different containers.
- USER USERNAME**
Sets the user to use for all future RUN commands and in the resulting container.
- WORKDIR PATH**
Sets the working directory for future commands.

Further info see:

More info in the official reference:

<https://docs.docker.com/engine/reference/builder/>