

# Docker build step plugin

## Plugin Information

View `docker-build-step` on the [plugin site](#) for more information.

This plugin allows to add various [Docker](#) commands into your job as a build step

If you would like to use Docker for dynamics slave provisioning, you should check [this plugin](#).

Plugin currently support following commands:

- commit changes in specified container
- create new container from image
- create image from Dockerfile
- create exec command
- kill container(s)
- pull image from a repository
- push image to a repository
- remove container(s)
- remove all containers
- restart container(s)
- start container(s)
- stop container(s)
- stop all containers
- start/stop all containers created from specified image
- start exec command

Some commands also export build variables, so that you can easily use them in subsequent build steps.

Variables exported by `create` and `start` commands:

- `DOCKER_CONTAINER_IDS` - IDs of created/started containers
- `DOCKER_IP_HOSTNAME` - IP of running container with hostname `$HOSTNAME`

When port binding is set up (in `start` command), following environment variables are exported:

- `DOCKER_HOST_BIND_PORTS` - contains comma separated list of ports to which are bound docker container ports
- `DOCKER_HOST_PORT_SCHEMA_PORT` - which docker container port is bound to this port (e.g. `DOCKER_HOST_PORT_TCP_80` would contain value 8080 in case that container port 8080 is bound to port 80 on host)
- `DOCKER_HOST_SOCKET_SCHEMA_PORT` - host IP:PORT to which container `PORT` using `SCHEMA` is bound. E.g. with following port binding `127.0.0.1:80:8080`, container TCP port is 8080 is bound to host port 80 on loopback and `DOCKER_HOST_SOCKET_TCP_8080` will contain `127.0.0.1:80`.

**Known limitations:** Commands run without any issue only on master, on remote slaves command execution fails, see [JENKINS-24071](#) for details.

## Configuration

You have to make sure that Docker service is running on slaves where you run the build. In Jenkins global configuration, you need to specify Docker REST API URL (typically something like <http://127.0.0.1:2375>) and select build steps you'd like to perform in your job configuration.

## Changelog

### Upcoming changes

#### Release 2.0 (2018-01-21)

- Command executed remotely on slave ([pull52](#))

#### Release 1.43 (2017-06-09)

- Handle empty arguments in `CreateImageCommand` ([pull49](#))

#### Release 1.42 (2017-05-22)

- Bump `docker-java` version to 3.0.10 ([pull48](#))

## Release 1.41 (2017-03-30)

- Added support for build-arg in `Create image` command (pull60)

## Release 1.40 (2017-03-10)

- `dockerCertPath` is a property (pull45)
- Fixed NPE (pull46)

## Release 1.39 (2017-02-08)

- Expanded `tag` parameter in `Push image` build step (pull53)

## Release 1.38 (2017-01-18)

- Updated Apache `httpClient` version (pull44)
- Support for specifying Docker file name in `Create image` build step (pull51)

## Release 1.37 (2017-01-05)

- Upgrade to `docker java` 2.2.3 (pull41)  
**BACKWARD INCOMPATIBLE CHANGE:** following options were moved (due to changes in underlying `docker-java` library) from `StartConatinter` command to `CreateContainer` command:
  - `publishAllPorts`
  - `portBindings`
  - `links`
  - `bindMounts`
  - `privileged`
- Added several features (pull42)
  - support for SSL
  - always restart container policy
  - extra hosts option (list of hostnames added to `/etc/hosts`)
- Wait for completion of some actions to make sure they succeeded (pull43)
- Upgrade to `docker java` 3.0.6 (pull45)

## Release 1.36 (2017-01-05)

- broken release (as I forgot on INFRA-588)

## Release 1.35 (2016-05-11)

- Fixed tag in `SaveImageCommnad` (issue #37)

## Release 1.34 (2016-03-01)

- Support the post-build action in a multi-configuration project (pull40)

## Release 1.33 (2015-11-19)

- Added force option to commands for container removal (pull39)

## Release 1.32 (2015-10-30)

- Added force option for tag command (pull38)
- Improve description of config form fields (pull36) and display text (pull37)

## Release 1.31 (2015-09-05)

- Upgrade `docker-commons` to 1.2 (pull35)

## Release 1.30 (2015-08-28)

- Container command can take arguments (pull34)
- Fixed NPE in `CreateImageCommand` (issue #20)

## Release 1.29 (2015-08-14)

- Added missing Jelly file for `SaveImageCommand` ([pull24](#))

## Release 1.28 (2015-07-24)

- Added `TagImageCommand` ([pull33](#))
- Added configuration for `RemoveImageCommand` ([pull33](#))

## Release 1.27 (2015-07-15)

- Added option to remove intermediate containers after a successful build to `Create image` command
- `Docker URL` and version in global config can now contain environment variables

## Release 1.26 (2015-06-26)

- Switch from custom Docker registry endpoint config to [Docker commons plugin](#) ([pull32](#))
- Improved output in `CreateImageCommand` ([pull19](#))
- Added `SaveImageCommand` and `RemoveImageCommand` ([pull19](#))

## Release 1.25 (2015-06-05)

- Added option for removing volumes when removing container ([pull31](#))

## Release 1.24 (2015-05-07)

- Introduced new command combining `create` and `start exec` commands ([pull30](#))
- Show in the build log stream response from Docker in `start exec` command ([pull30](#))

## Release 1.23 (2015-04-28)

- Expanded env. variables in commit command ([pull29](#))

## Release 1.22 (2015-04-07)

- Added possibility to capture container log - currently works only for containers with TTY disabled ([pull28](#))
- Added post build step to stop and remove Docker containers ([pull27](#))
- Built with JDK6 support - `docker-java` library rebuilt with JDK6 support ([JENKINS-27821](#))

## Release 1.21 (2015-03-11)

- Added option for CPU and memory limits when creating container ([pull26](#))
- Host `IP:PORT` to which some container port is bound is now exported as `DOCKER_HOST_SOCKET_$SCHEMA_$PORT` ([pull25](#))

## Release 1.20 (2015-02-27)

- Added exposed ports option to `CreateContainerCommand` ([pull24](#))

## Release 1.19 (2015-02-23)

- Exec `create` and `exec start` commands
- Fixed issue with authentication ([pull23](#))

## Release 1.18 (2015-01-19)

- Added option to ignore nonexistent containers IDs when removing the containers ([pull8](#)).

## Release 1.17 (2015-01-07)

- Added `Push` command ([pull22](#))
- Added registry authentication ([JENKINS-24388](#))
- Improved `Pull image` command ([JENKINS-26166](#), [JENKINS-26167](#))

## Release 1.16 (2014-12-05)

- Pull image cmd broken in rel. 1.15 ([JENKINS-25929](#))

## Release 1.15 (2014-12-04)

- Jenkins plugins class loader is now passed into docker-java client
- Allow "no-cache" option in Create Image step ([JENKINS-25835](#))
- Added option for links when creating a container
- Added option for specifying links when starting a container ([JENKINS-25796](#))
- Option for specifying container name when created container

## Release 1.14 (2014-11-25)

- Ensure DOCKER\_CONTAINER\_IDS contains unique IDs ([JENKINS-25745](#))

## Release 1.13 (2014-11-06)

- Multiple port bindings ([pull17](#))
- Upgrade to docker-java 0.10.3 ([pull18](#))

## Release 1.12 (2014-10-24)

- Support for bind mounts (volumes) ([JENKINS-24683](#))

## Release 1.11 (2014-10-01)

- Added EnvVars option in Create container command ([pull14](#))
- Fixed invalid version information in Docker URL ([JENKINS-24551](#))

## Release 1.10 (2014-09-19)

- Upgrade to docker-java 0.10.0 ([pull13](#))
- Create image build step fails with Jenkins prior to 1.553 ([JENKINS-24699](#)) - requires Jenkins core 1.554.1 or higher

## Release 1.9 (2014-08-21)

- Added env. variables with port bindings ([JENKINS-23704](#))
- ~~Execute Docker commands remotely on slaves~~ (actually wasn't fixed, see [JENKINS-24071](#))

## Release 1.8 (2014-08-15)

- Added more options for Start container command - publish all ports and privileged option ([pull10](#))
- Added option for Docker client version ([JENKINS-24156](#))
- Switch to Docker syntax for port binding, **backward incompatible change**, see [JENKINS-23704](#) for details ([pull7](#))

## Release 1.7 (2014-08-06)

- Removed placeholder text from index page ([pull4](#))
- Allow admin to save global config page even if Docker URL is empty ([JENKINS-23733](#))
- Added option for specifying port mapping when the container is started ([JENKINS-23704](#))
- Expand env. variables in "wait for ports" field ([JENKINS-24043](#))
- Don't use JDK7 methods ([JENKINS-24041](#))
- Command is optional on container creation ([pull5](#))

## Release 1.6 (2014-06-17)

- Compatibility with Docker 1.0 (switch to [com.github.docker-java](#))

## Release 1.5 (2014-06-07)

- Check, if Docker URL was provided and Docker client initialized ([JENKINS-23342](#))
- Validation button for Docker URL in global configuration ([JENKINS-23343](#))

## Release 1.4 (2014-05-28)

- Upgrade to latest docker-java - covers latest Docker REST API + number of bug fixes ([JENKINS-23200](#),[JENKINS-22838](#))

## Release 1.3 (2014-05-21)

- Allow variable expansion in command parameters ([JENKINS-23025](#))
- Fixed typos ([pull3](#))

## Release 1.2 (2014-04-06)

- Improved logging during building image from Docker file ([JENKINS-22083/pull2](#))
- Wait for specified ports when starting containers (optional)

## Release 1.1 (2014-03-06)

- Start and stop all containers created from specified image
- Pulling image from a repository
- Commit changes in specified container
- Create image from Dockerfile ([pull1](#))

## Release 1.0 (2014-02-17)

- Initial release