Docker Tooling For Developers

A look at the Docker Tooling features for the Eclipse IDE

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Eclipse Docker Tooling

Set of Eclipse plugins providing functionality of docker commandline

**Docker Containers?**

- Light-weight virtualization sharing the Linux kernel. Container is an Image that is running and has all that is needed to run some application

**Tooling in Eclipse?**

- A set of plugins from the Linux Tools Project implementing docker commands through Eclipse UI ([https://eclipse.org/linuxtools](https://eclipse.org/linuxtools))
- Provide management of Containers/Images and make it easier
- Initially released in Eclipse Mars (4.5)
- Small base of contributors, but we get many more bugs / feature requests
Docker Client Java Library
Java library used to communicate between Eclipse and a Docker daemon

- [https://github.com/spotify/docker-client](https://github.com/spotify/docker-client)
- Very accepting of contributions, we push all changes issues we find back into upstream project
- In one year: 3.6.5 → ... → 8.1.2
- Updating libraries in Eclipse ecosystem has become much simpler thanks to improvements in contributing 3rd party libraries
- Keeping up to date is very important given how fast the Docker Remote API evolves
Docker Client Dependency Stack

Java library used to communicate between Eclipse and a Docker daemon

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[Diagram showing interconnections between various library dependencies]
Improvements (Connection)

Improvements to daemon connection state

**Automatic connection detection**
Extension point to detect/create known daemon connections

**Improved support for disconnections**
Better tracking of the state of a daemon connection

**Clipboard support**
Making it easier to import daemon connection information
Improvements (Features)

Improvements to daemon connection state

**Copy To / From Container**
Copy files between container and host environment

**Image Hierarchy View**
View the hierarchy describing the ancestors of an image

**Network Support**
Configure a container’s networking options
Push / Pull Against Registry

**Pull Image**

- **Pull an image or a repository from the registry**
  - Specify a repository or a single image to pull down to the host.
  - Registry account: https://index.docker.io
  - Image name: 

**Push Image**

- **Push to Registry**
  - Select an image name (or input a new one), then select a target registry.
  - Registry account: https://index.docker.io
  - Image name: docker.io/busybox:latest
  - Force tagging image with selected registry
  - Keep tagged image upon completion

Finish
Docker Compose
Defining and running multiple containers at once
Future Improvements

What can we do better? What would we like to work on?

- Support Running/Debugging Java Projects
- API Improvements
- We need to focus more upstream in the Java docker-client library
- Expand upon ‘docker-compose’ support
Get The Plugins

Eclipse Marketplace
https://marketplace.eclipse.org/content/eclipse-docker-tooling

Development Repository (p2)
http://download.eclipse.org/linuxtools/updates-docker-nightly

Also part of simultaneous releases
http://download.eclipse.org/releases/neon
http://download.eclipse.org/releases/oxygen
THANK YOU
Evaluate the Sessions
Sign in and vote at eclipseconverge.org

-1  0  +1