Eclipse DemoCamp 2016/Bonn
Docker Tooling for Developers
About me

• Senior Software Engineer
• Working at Red Hat for ~5 years
• JBoss Tools team member
• Committer on Docker Tooling at eclipse.org
Agenda

• Quick introduction to Docker
• Docker tooling at Eclipse
• Demo
• Conclusion
Introduction to Docker
Docker components

- Images
- Containers
- Daemons
- Clients
- Registries
Docker Images

- "build" components
- read-only templates
- combination of layers
- built using a Dockerfile
Docker Containers

- "run" components
- based on Images
- contain application and dependencies but share same kernel
- can be started, stopped, paused, deleted
- can be linked to other containers
- containers are immutable and disposable
Docker Daemon

- runs natively on Linux
- inside a VM on Windows and Mac OS X
Docker Clients

clients (CLI, IDE) run on host VM

docker run <image>
docker …
Docker tooling at `eclipse.org`

- Linux tools project (works on macOS and Windows, too)
- Make Docker accessible from Eclipse
- Works with existing Docker tools (docker-machine, etc.)
- Focus on developer experience
- Allow reuse by other plugins
Docker setup

- Install Docker for Windows/Mac/Linux or Docker Toolbox from [docker.com](http://docker.com) or the Red Hat Container Development Kit (CDK) at [http://developers.redhat.com/products/cdk](http://developers.redhat.com/products/cdk)

- Install Eclipse Docker tooling
  - from Eclipse Marketplace
  - from [eclipse.org/linuxtools](http://eclipse.org/linuxtools)
  - as part of Red Hat Developer Studio ([http://developers.redhat.com/products/devstudio](http://developers.redhat.com/products/devstudio))
  - from [tools.iboss.org](http://tools.iboss.org) (mirrors [eclipse.org/linuxtools](http://eclipse.org/linuxtools))
Eclipse Neon Releases

- Dockerfile editor (external contribution)
- Support for Docker Compose
- Image Hierarchy view
- Execute shell commands in Terminal view
- Improved support for connections
- Push to registries with authentication
- Bug fixes (thanks to AERI reports)
Demo
Demo scenario

Docker

xcoulon/wildfly-postgres-dev:10.0.0.Final

jboss/wildfly:10.0.0.Final

Dockerfile
Demo scenario

Docker VM

Docker

xcoulon/wildfly-postgres-dev:10.0.0.Final

postgres:9.4.8

wildfly

postgres

Docker VM

Host

.../deployments
Conclusion
Summary of highlighted Docker features

- Manage connection to Docker daemons
- Search and pull images
- Build custom images from Dockerfile
- Run images with specific ports, volumes and links to containers
- Manage containers (start/stop/pause/unpause/kill)
- Use a server adapter
- Remote debug in a container
- View image hierarchy
- Run Docker Compose
- Copy files from containers to host
Ideas for Eclipse Oxygen

- Improve support for Docker Compose
- Support newest Docker core features
- Import/export "docker run" commands
- Server Adapter (JBoss Tools)
Let's Get in Touch!

- [eclipse.org/linuxtools](http://eclipse.org/linuxtools) / [linuxtools-dev@eclipse.org](mailto:linuxtools-dev@eclipse.org) / [bugs.eclipse.org](http://bugs.eclipse.org) (product 'Linux Tools' / Component 'Docker')

- [http://tools.jboss.org](http://tools.jboss.org) / [jbosstools-dev@lists.jboss.org](http://lists.jboss.org) / @jbosstools

- [http://developers.redhat.com/](http://developers.redhat.com/) @rhdevelopers
Questions & Answers
Danke!

Feedback appreciated:
@xcoulon or during the pause