Eclipse Che:
The Next-Gen Eclipse IDE

JAVAFORUM STUTTGART - July 7

Stevan Le Meur (@stevanLM) - Codenvy

#eclipseche
Agenda

- Introduction to Eclipse Che
- Live Demo
- Workspace Portability
- A Workspace when you Need It!
The Developer Environment Configuration Problem
Working on multiple projects, technologies
Working in teams with style...

All differents - but all goods
Documentation, Scripts?

READ THE SOURCE LUKE!!
Manual, Error Prone and - in hours, days, weeks?
Embarrassed.
Ashamed.
Defeated.
Why can’t it just &%$#@# work??
Anyone, anytime can contribute to a project without installing software.
Open source <-> community
Agile development feels more natural
Iterate in-the-moment with users
What is needed to make a contribution?

IDE  
Project Files  
Runtime
Workspaces include projects and config
How to share your workspace...

IDE

config server
JetBrains

IDE + Projects

config + install
Oomph

Projects

peer-2-peer
Flux
How do you sync the runtime?
Localhost runtime has constraints

- sharing
- controlling
- scaling
Redefine the workspace

IDE + Project Files + Runtime
A universal workspace leads to universal contributions.
Eclipse Che is an open source project to make workspaces universal.
Universal workspace

- Runtime Inside
- Collaborative
- Programmable
- Versionable
- Extensible
Workspaces bring their own runtimes

Machine runtime defined by Dockerfile
Projects are mounted into the runtime

Projects rely on workspace runtime
Workspaces define commands

- `mvn clean install`
- `start mysql`
- `deploy project`

Commands are executed as processes in workspace runtime.
Workspaces serve their own browser IDE
Desktop IDEs can connect over SSH
Workspaces are hosted in Che’s server
Eclipse Che bring its own browser IDE to provide new developer experience
Universal workspace

Runtime Inside

Collaborative

Programmable

Versionable

Extensible
Workspaces are shareable
Workspaces are portable
Live Demo: Introduction to Eclipse Che

1. Terminal
2. Editor
3. Java intellisense
4. Commands
5. Debug
6. Save to the cloud
Demo recap

- Creation of a workspace and project
- Editor Overview
- Interacting with Stacks - Commands
- Debugger
Universal workspace

Runtime Inside
Collaborative
Programmable
Versionable
Extensible
Swagger!
Universal workspace

- Runtime Inside
- Collaborative
- Programmable
- Versionable
- Extensible
What happens if your workspace contains runtimes identical to those in production?
Universal workspace

Runtime Inside
Collaborative
Programmable
Versionable
Extensible
Growing the base of plug-ins...

**Languages**
- Syntax highlighting, stacks, templates, and code assistants.
  - Java
  - C++
  - JavaScript
  - Python
  - PHP
  - Ruby
  - SQL

**Frameworks**
- Project types, scaffold tool integration, and syntax analysis.
  - OpenShift
  - Angular JS
  - Docker
  - Yeoman

**Builders**
- Builders to manage unit tests, compilation, linking, and dependencies.
  - Ant
  - Bower
  - Grunt
  - Gulp
  - Maven
  - Npm

**Tools**
- Extensions that integrate the IDE with other parts of the developer tool chain.
  - Git
  - Orion
  - SSH
  - Subversion
Language Server Protocol

Interface to connect language analysis into any development tool.

JAVA
C#
C++
PowerShell
R
XText

{Codenvy}
Universal workspace

- Runtime Inside
- Collaborative
- Programmable
- Versionable
- Extensible
Load or create new workspace

Securely onboard developer

http://someurl/factory?id=a_project
The dream realized

Developer Workspace
Open source project Badging

Spring petclinic with a branch for using MySQL — Edit

- 366 commits
- 4 branches
- 0 releases
- 15 contributors

Branch: master  New pull request

- `sleemeur` Update url of contribution button
  - Latest commit `ab3d07d` on Apr 28, 2015
  - `src` migrated to Spring 4.1.1.RELEASE
  - `.gitignore` Ignore codenvy settings
  - `springBeans` using latest versions of hibernate, spring-data, joda...
  - `pom.xml` upgraded to Spring Data 1.7.0
  - `readme.md` Update url of contribution button

- Developer Workspace
Codenvy  ❤️  open source

4 GB Workspaces
Visual Studio Team Services
Visual Studio Team Services
+ Codenvy
Demo

1. Manage your tasks on Visual Studio Team Services
2. Developer workspace & Pull request flow
3. Reviewer workspace
JIRA integration
Jenkins integration
Extending Eclipse Che
The browser IDE
The dashboard
Get started with Eclipse Che

Sources
github.com/eclipse/che

Dev List
che-dev@eclipse.org

IRC
#eclipseche

Gitter
gitter.im/eclipse/che
And of course...

eclipse.org/che

Getting started guides
Downloads
Documentations
Contribution guide
Questions ?
Thank you