Red Hat Developer

Red Hat CodeReady Workspaces

Kubernetes-based IDE running in your browser

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Overview

Red Hat CodeReady Workspaces

a Cloud-Native IDE for OpenShift

Kubernetes with Zero Effort

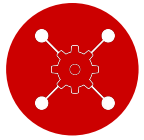
Embed a CodeReady Workspaces link in a project repo or issue tracker and anyone with a browser can be contributing code in <2 minutes.

Protect your Code

Source code is never cloned to a hard-to-secure laptop. Code stays in an IT controlled sandbox, but one that reacts as quickly as a developer's laptop.

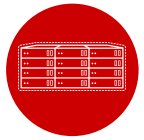
Developer Environment as Code

Developer environments are codified with a Devfile: consistent; reproducible. Store them in the repo for auditability and to provide a GitOps experience.



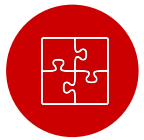
Openshift Developer Perspective Integration

Workspaces are accessible from the OpenShift console, making the onboarding even smoother.



Air-Gap Install

Deploy on your OpenShift cluster, behind your firewall. Air-Gap capabilities. Easy to monitor and administrate.



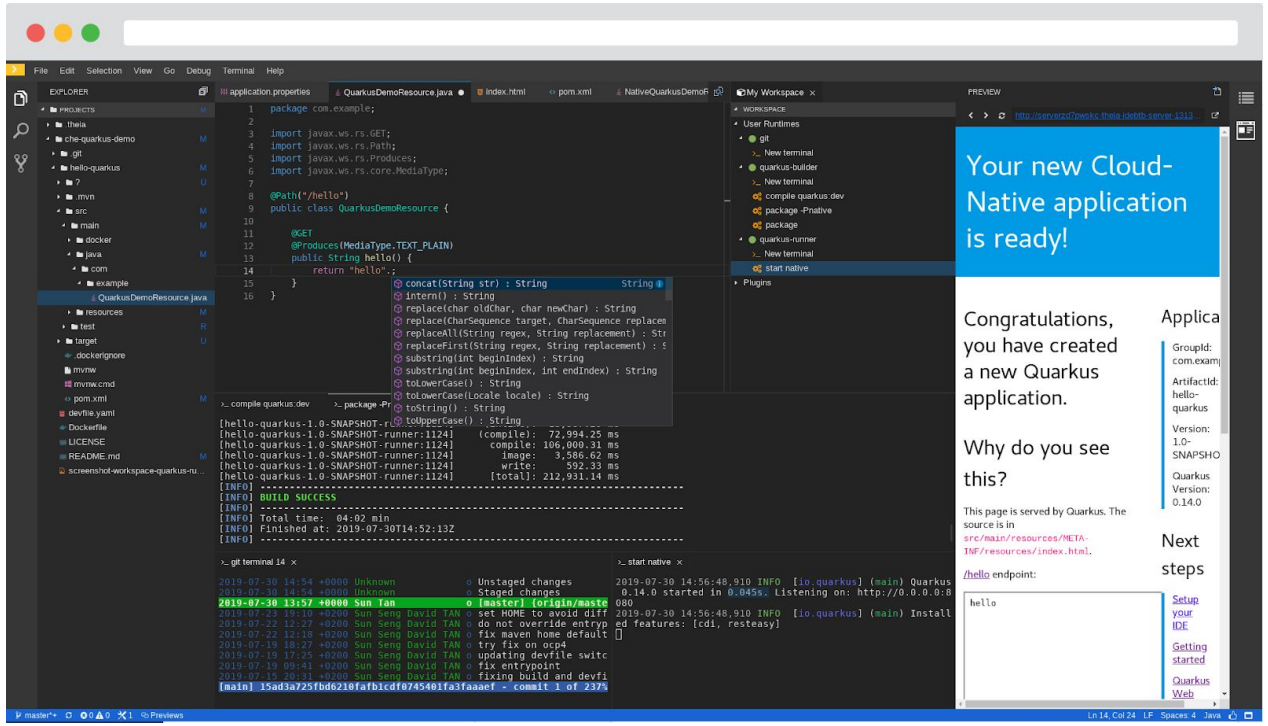
New Built-in Editor

New browser based editor, providing a fast desktop like experience. Compatibility with Visual Studio Code extensions.

What's in the Box

Based on Eclipse Che 7

- **Kubernetes-based developer workspaces:** Leverage fully containerized developer workspaces, and bring your kubernetes application runtime in your development environment.
- **New Editor**: Get a top-of-the-art desktop like experience in the browser.
- **VSCode extension compatibility:** Benefits from existing extensions
- **Devfile:** Codified definition of replicable developer environments
- **OpenShift VSCode Plug-in:** Speeds up OpenShift development
- **Easier to Monitor and Operate:** Prometheus and Grafana dashboards.



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How It Works

Workspaces: Developer Sandbox centrally hosted on OpenShift

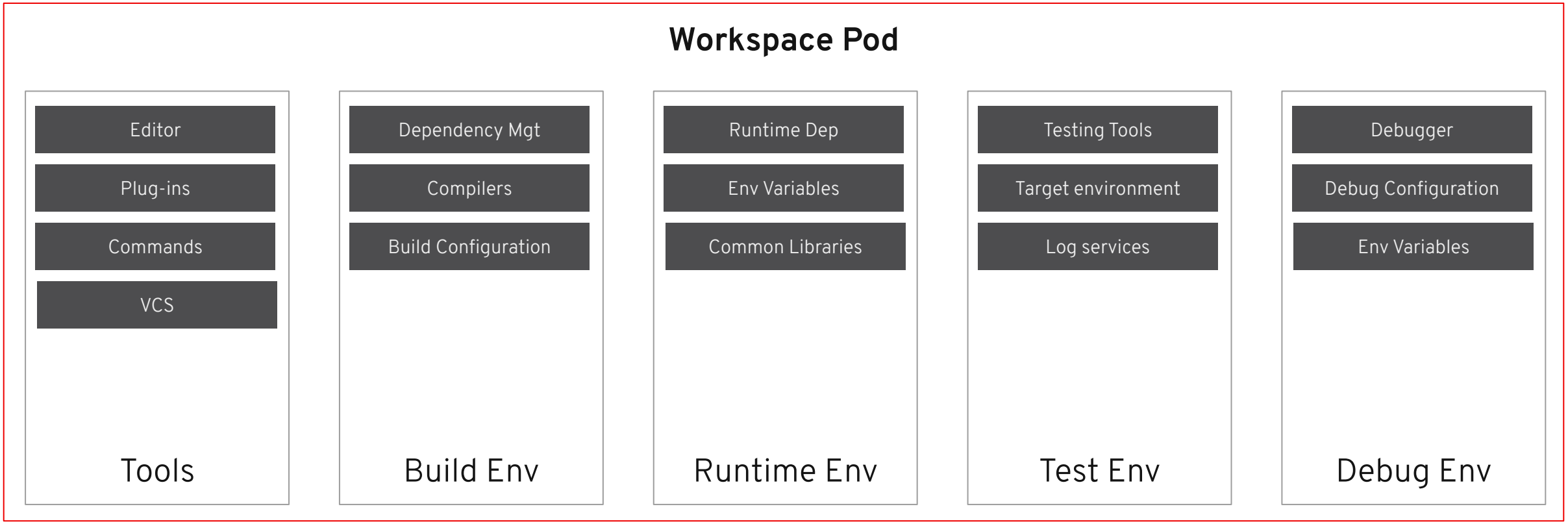
A CRW workspace is a **developer sandbox running on OpenShift**, where everything needed to code on a project is packaged into containers.

It provides:

- Application runtimes
- Build tools
- Development tools: Browser based editor + plugins
- Project source code repositories

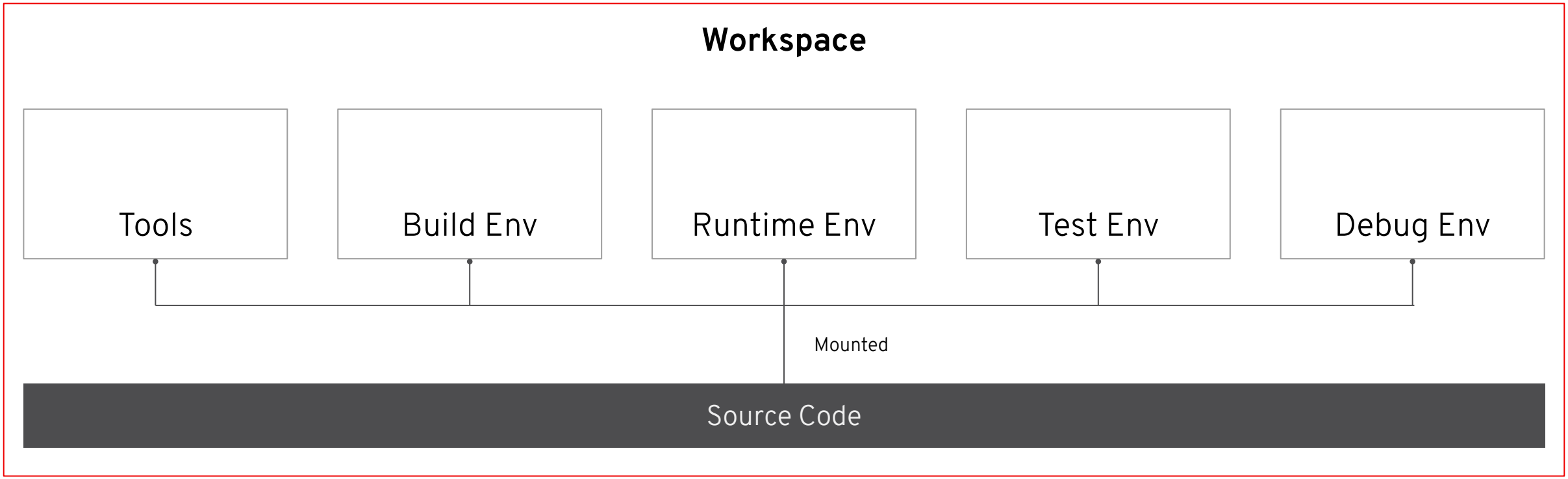
Workspaces: Developer Sandbox

Containerizing everything you need to develop, build, run, test and debug your application.



Workspaces: Developer Sandbox

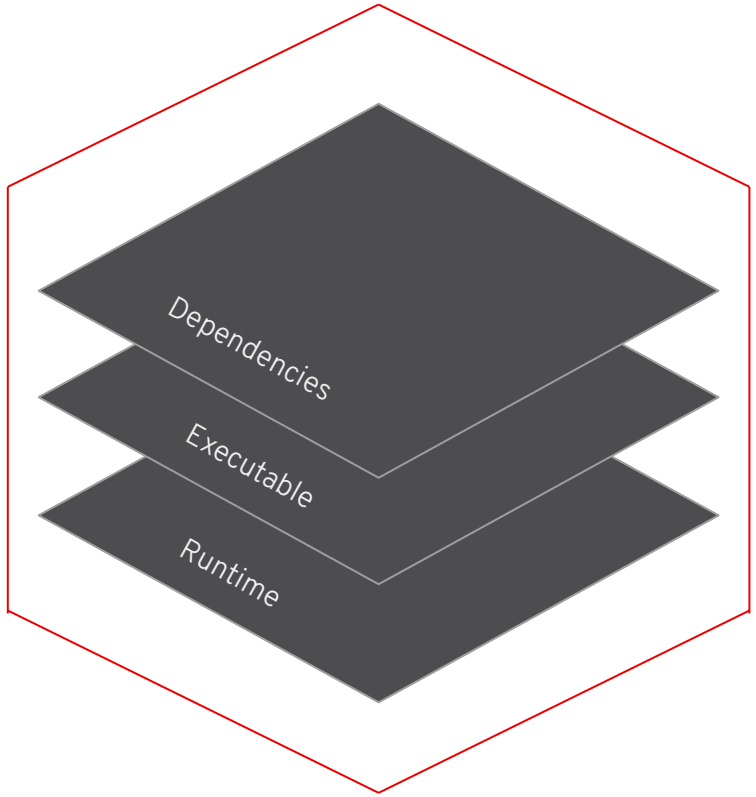
Source code is getting mounted in your workspace, accessible from all containers.



Containerized Development Tools

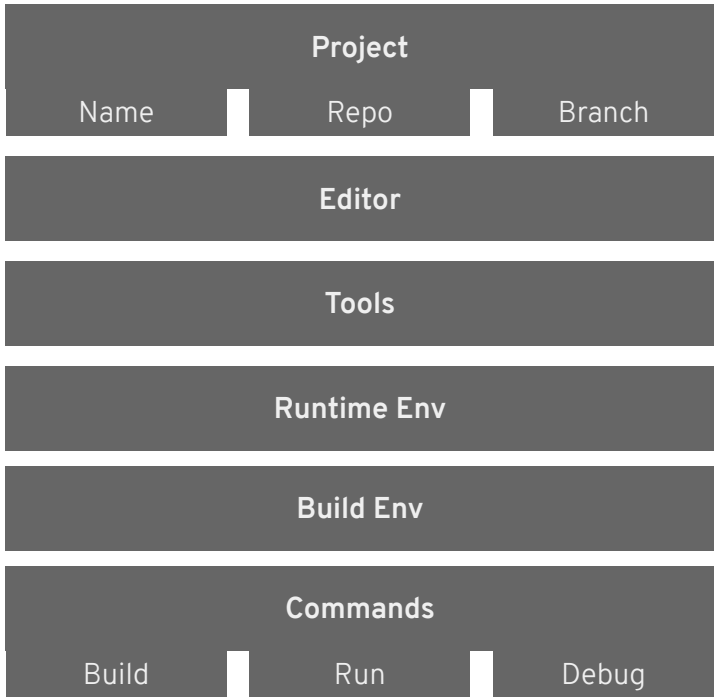
Development tools (editors and plug-ins) are packaged with their runtimes and dependencies:

- Zero dependency installation
- Isolated execution
- Own lifecycle
- Easy upgrade/switch
- Simpler packaging
- Scalable



Package VSCode extensions in the container.

Devfile: Developer environment as code



Devfile Definition

The devfile provides easy-to-configure, highly reproducible definitions of portable developer environments.

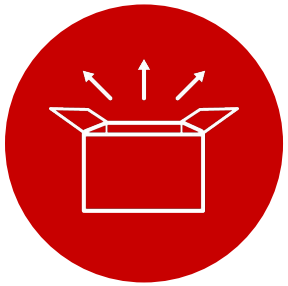
It is a declarative abstraction of a replicable developer workspaces, which includes the runtime environments, the source code of the projects mapped to repositories and the tools, plugins and commands needed to code, build, test, run and debug a project.

Devfile Example

1. Project information
2. List of components of the workspace
3. Plugin component
4. Runtime image
5. Env variables to configure the container
6. End-points definition

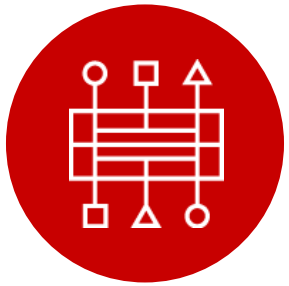
```
---
apiVersion: 1.0.0
metadata:
  generateName: java-web-vertx-
projects:
  - name: java-web-vertx
    source:
      type: git
      location: "https://github.com/che-samples/web-java-vertx"
components:
  - type: chePlugin
    id: redhat/java/latest
  - type: dockerimage
    alias: maven
    image: quay.io/eclipse/che-java8-maven:nightly
    env:
      - name: JAVA_OPTS
        value: "-Duser.home=/home/user"
      - name: MAVEN_OPTS
        value: $(JAVA_OPTS)
    memoryLimit: 512Mi
    endpoints:
      - name: '8080/tcp'
        port: 8080
    mountSources: true
    volumes:
      - name: m2
        containerPath: /home/user/.m2
```

Devfile: Made for Team



Manage Consistency

First class support of K8S, manage the complexity of developer environments take out the pain.

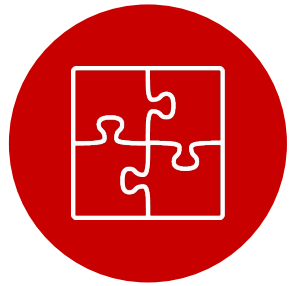


Easy to Integrate

Devfiles are easy to integrate with any tools. Developer environments can be created from anywhere at anytime.

Simple to Share

Devfile live with source code, are easy to modify, fork and share.



Extensible

Customize per task, with plug-in and developer preferences

Demo

Converting docker-compose dev environment to CRW

Thank you

linkedin.com/showcase/red-hat-developer

youtube - bit.ly/2YRIWTk

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