

### Red Hat CodeReady Workspaces 2.12

### Release Notes and Known Issues

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#### **Abstract**

Information about new and noteworthy features as well as known issues in Red Hat CodeReady Workspaces 2.12.

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#### MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see our CTO Chris Wright's message.

#### CHAPTER 1. ABOUT RED HAT CODEREADY WORKSPACES

Red Hat CodeReady Workspaces is a web-based integrated development environment (IDE). CodeReady Workspaces runs in OpenShift and is well-suited for container-based development.

CodeReady Workspaces provides:

- an enterprise-level cloud developer workspace server
- a browser-based IDE
- ready-to-use developer stacks for popular programming languages, frameworks, and Red Hat technologies

Red Hat CodeReady Workspaces 2.12 is based on Eclipse Che 7.36.

#### 1.1. SUPPORTED DEPLOYMENT ENVIRONMENTS

This section describes the availability and the supported installation methods of CodeReady Workspaces 2.12 on OpenShift Container Platform 4.9 4.8, 3.11, and OpenShift Dedicated.

Table 1.1. Supported deployment environments for CodeReady Workspaces 2.12 on OpenShift Container Platform and OpenShift Dedicated

Platform	Architecture	Deployment method
OpenShift Container Platform 3.11	AMD64 and Intel 64 (x86_64)	crwctl
OpenShift Container Platform 4.8	AMD64 and Intel 64 (x86_64)	Operator Hub, <b>crwctl</b>
OpenShift Container Platform 4.8	IBM Z (s390x)	Operator Hub, <b>crwctl</b>
OpenShift Container Platform 4.8	IBM Power Systems (ppc64le)	Operator Hub, <b>crwctl</b>
OpenShift Container Platform 4.9	AMD64 and Intel 64 (x86_64)	Operator Hub, <b>crwctl</b>
OpenShift Container Platform 4.9	IBM Z (s390x)	Operator Hub, <b>crwctl</b>
OpenShift Container Platform 4.9	IBM Power Systems (ppc64le)	Operator Hub, <b>crwctl</b>
OpenShift Dedicated 4.9	AMD64 and Intel 64 (x86_64)	Add-On



#### **NOTE**

Deploying CodeReady Workspaces on OpenShift Container Platform on IBM Z (s390x) is currently available as a Technology Preview feature. Technology Preview features are not supported with Red Hat production service level agreements (SLAs) and might not be functionally complete. Red Hat does not suggest using these features in production. Technology Previews provide early access to upcoming product features and enable customers to test functionality and provide feedback during the development process. For details about the level of support for Technology Preview features, see Technology Preview Features Support Scope.

#### Additional resources

- Installing CodeReady Workspaces from Operator Hub on OpenShift 4.9 .
- Installing CodeReady Workspaces on OpenShift Container Platform 3.11.

#### 1.2. SUPPORT POLICY

For Red Hat CodeReady Workspaces 2.12, Red Hat will provide support for deployment, configuration, and use of the product.

CodeReady Workspaces 2.12 has been tested on Chrome version 94.0.4606.81 (Official Build) (64-bit).

#### Additional resources

• CodeReady Workspaces life-cycle and support policy.

### 1.3. DIFFERENCES BETWEEN ECLIPSE CHE AND RED HAT CODEREADY WORKSPACES

The main differences between CodeReady Workspaces and Eclipse Che are:

- CodeReady Workspaces is built on RHEL8 to ensure the latest security fixes are included, compared to Alpine distributions that take a longer time to update.
- CodeReady Workspaces uses Red Hat Single Sign-On (RH-SSO) rather than the upstream project Keycloak.
- CodeReady Workspaces provides a smaller supported subset of plug-ins compared to Che.
- CodeReady Workspaces provides devfiles for working with other Red Hat technologies such as EAP and Fuse.
- CodeReady Workspaces is supported on OpenShift Container Platform and OpenShift Dedicated; Eclipse Che can run on other Kubernetes clusters.

Red Hat provides licensing, packaging, and support. Therefore, CodeReady Workspaces is considered a more stable product than the upstream Eclipse Che project.

#### **CHAPTER 2. NOTABLE ENHANCEMENTS**

#### 2.1. FIPS SUPPORT

If enabled in the operating system for your OpenShift cluster and its worker nodes, FIPS is supported. See Installing FIPS on OpenShift.

#### Additional resources

• CRW-1598

#### 2.2. INITIAL SUPPORT OF BACKUP AND RESTORE

To support level 3 of the Operator Framework capability levels, the CodeReady Workspaces Operator can back up and restore the operand.

To start a backup or restore operation, choose one of the available methods:

- Use the crwctl command-line tool.
- Create a dedicated CustomResource: CheClusterBackup or CheClusterRestore.

The backup contains CodeReady Workspaces server components. Workspace objects for users are not included.

#### Additional resources

• CRW-1878

#### 2.3. MULTI-ROOT MODE FOR CHE-THEIA

With this update, Che-Theia supports one unique mode: multi-root. The transitional feature toggle **multiRoot: 'on'** in a devfile has been removed.

#### Additional resources

• CRW-2222

# 2.4. SPECIFYING CUSTOM LABELS AND ANNOTATIONS TO USER NAMESPACES

With this update, the CodeReady Workspaces server supports setting custom labels and annotations for user namespaces.

#### Additional resources

• CRW-2223

### **CHAPTER 3. BUG FIXES**

#### **CHAPTER 4. KNOWN ISSUES**

### 4.1. DEBUGGING CANNOT BE ACTIVATED IN GO WORKSPACES ON IBM Z AND IBM POWER SYSTEMS

On IBM Z and IBM Power Systems, the debugging features cannot be activated in the Go workspace in CodeReady Workspaces 2.12. Delve, the required debugger for the Go programming language, is not available for these platforms. An attempt to activate this feature results in the **Failed to continue** error message. This issue has no workaround.

#### Additional resources

• CRW-1349

### 4.2. LANGUAGE SERVER FEATURES ARE NOT PREINSTALLED IN GO WORKSPACES

Golang based workspaces do not include basic language server features such as code autocompletion.

#### Workaround

- 1. Run the CodeReady Workspaces instance in a non-restricted environment.
- 2. Install the required module by using the **Install** button in the IDE dialog box.

#### Additional resources

• CRW-1521

### 4.3. MISLEADING ERROR MESSAGE FOR A WORKSPACE FAILURE CAUSED BY THE MKDIR POD TIMEOUT

A lack of OpenShift Container Platform cluster resources causes a failure. This failure causes a misleading message: Your session has expired. Please, log in to CodeReady Workspaces again to get access to your OpenShift account.

#### Workaround

• Provide more resources to the OpenShift Container Platform cluster.

#### Additional resources

• CRW-1767

# 4.4. ATTEMPTS TO CLONE A WORKSPACE FROM AQUICK ADD SAMPLE RESULT IN AN ERROR UNDER THE SINGLE-HOST STRATEGY

When using the **single-host** strategy for workspace exposure, attempting to clone a workspace from a **Quick Add** sample results in an error. There is currently no workaround for this issue.

#### Additional resources

• CRW-1851

# 4.5. CRWCTL BINARIES ARE NOT SUPPORTED ON IBM Z AND IBM POWER SYSTEMS

The **crwctl** binaries do not run on IBM Z and IBM Power Systems. These platforms are available as targets for deploying CodeReady Workspaces.

#### Workaround

• Run **crwctl** from a supported platform.

#### Additional resources

• CRW-1864

#### 4.6. WORKSPACE CREATION FAILS ON UNSTABLE NETWORKS

CodeReady Workspaces might fail to create a workspace when the network is unstable. CodeReady Workspaces displays an error such as the following: Failed to run the workspace: "Waiting for pod 'workspace9fbid1gnx7273d47.maven-545f8c9cf4-hw79f' was interrupted." This issue has no workaround.

#### Additional resources

• CRW-1888

#### 4.7. UNSUPPORTED DEVFILES ON IBM Z AND IBM POWER SYSTEMS

The following devfiles are not supported on IBM Z and IBM Power Systems:

- EAP for OpenJDK 8
- .Net
- Fuse
- Apache Camel K by Red Hat

#### Workaround

• Do not use unsupported languages on IBM Z and IBM Power Systems.

#### Additional resources

• CRW-1896

#### 4.8. TECHNOLOGY PREVIEW SUPPORT FOR IBM Z

Support for deploying CodeReady Workspaces on OpenShift Container Platform on IBM Z is available as a Technology Preview feature. Technology Preview features are not supported with Red Hat

production service level agreements (SLAs) and might not fully function. Red Hat does not suggest using them in production. These features provide early access to upcoming product features, enabling customers to test functionality and provide feedback during the development process.

#### Additional resources

• CRW-1897

### 4.9. ERROR MESSAGE ASKING THE USER TO LOG IN AGAIN AT WORKSPACE STARTUP

When starting a workspace, users might receive the following error message: Your session has expired. Please login to Che again to get access to your OpenShift account.

#### Workaround

• Log in again.

#### Additional resources

• CRW-2018

### 4.10. NO DELEGATECOMMANDHANDLER ERROR FOR JAVA WITH THE JBOSS EAP 7.3 DEVFILE

A workspace using Java with the JBoss EAP 7.3 devfile fails with the following error message: **No delegateCommandHandler for vscode.java.startDebugSession.** There is no workaround for this issue.

#### Additional resources

• CRW-2067

#### 4.11. NO DISPLAY FOR A TASK AFTER A NETWORKING ISSUE

When a task is running and there is some networking issue, the terminal window is cleared and contains no text. Even when the connection is restored, the terminal remains empty and loading. There is no workaround for this issue.

#### Additional resources

• CRW-2070

### 4.12. THE OPENSHIFT CONNECTOR PLUG-IN FAILS TO DEPLOY AN APPLICATION IN A RESTRICTED ENVIRONMENT

The OpenShift Connector plug-in fails to deploy because of the inability to access the **odo** image in the disconnected environment. There is no workaround for this issue.

#### Additional resources

• CRW-2071

#### 4.13. THE DEBUG CONFIGURATION IS MISSING

The **DEBUG** panel displays **No Configurations** in the drop-down list because no configurations are loaded.

#### Workaround

• Refresh the page to display the debug configurations.

#### Additional resources

• CRW-2078

# 4.14. UPDATING THE CODEREADY WORKSPACES INSTANCE FROM THE MULTI-HOST TO THE SINGLE-HOST STRATEGY BREAKS THE CREATE WORKSPACE UI

After patching the CodeReady Workspaces 2.12 instance from **multi-host** to **single-host**, the Dashboard **Create Workspace** page displays an incomplete UI with missing icons.

#### Workaround

• Re-deploy the devfile registry Pod after the update.

#### Additional resources

• CRW-2092

### 4.15. NAMESPACE RESTRICTION FOR OPENSHIFT DEDICATED AND ROSA

Don't deploy CodeReady Workspaces to the **openshift-workspaces** namespace on OpenShift Dedicated and ROSA.

#### Workaround

• Use another namespace when deploying CodeReady Workspaces on OpenShift Dedicated and ROSA.

#### Additional resources

• CRW-2235

#### 4.16. UPSTREAM SAMPLE DEVFILES ARE NOT SUPPORTED

Upstream sample devfiles are designed for Eclipse Che. CodeReady Workspaces doesn't support these samples. A workspace running with the Dev Workspace engine might fail to start when using an upstream sample devfile.

#### Workaround

• Use supported Red Hat CodeReady Workspaces sample devfiles.

#### Additional resources

• CRW-2253

### 4.17. THE OPENSHIFT CONNECTOR PLUG-IN DOES NOT ALLOW THE CREATION OF A NEW COMPONENT ON IBM POWER SYSTEMS

On IBM Power Systems, the list of supported image streams is missing, which causes component creation to fail.

#### Additional resources

• CRW-2255

# 4.18. UNINSTALLING CODEREADY WORKSPACES FAILS WHEN THE KUBERNETES IMAGE PULLER IS INSTALLED

When the Kubernetes Image Puller is installed, uninstalling CodeReady Workspaces fails, meaning:

- The deletion process doesn't remove the Kubernetes Image Puller finalizer.
- The **CheCluster** Custom Resource is not empty and can't be removed.

#### Workaround

• Disable the Kubernetes Image Puller before uninstalling CodeReady Workspaces.

#### Additional resources

• CRW-2256

## 4.19. TECHNOLOGY PREVIEW FOR DEPLOYING CODEREADY WORKSPACES 2.12 WITH THE DEV WORKSPACE ENGINE

Support for deploying CodeReady Workspaces 2.12 with the Dev Workspace engine is available as a Technology Preview feature, for OpenShift Container Platform 4.8. Technology Preview features are not supported with Red Hat production service level agreements (SLAs) and might not fully function. Red Hat does not suggest using them in production. These features provide early access to upcoming product features, enabling customers to test functionality and provide feedback during the development process.

#### **Known limitations**

- Workspaces are not protected from inner OpenShift cluster access.
- When deploying CodeReady Workspaces in a restricted environment, starting workspaces will fail because proxy and untrusted TLS certificates are not supported.
- Workspaces idling is not supported.

- GitHub, GitLab, Bitbucket OAuth flow to automatically configure users accounts is not supported.
- Clusters with a network policy that isolates namespaces networks are not supported.
- Asynchronous storage mode for workspaces is not supported.
- Selecting the editor from the dashboard is not supported.
- Upgrading an instance with the Dev Workspace engine enabled requires manual steps.

#### Additional resources

CRW-2284

#### 4.20. CLONE FROM GITHUB USING THE IDE UI FAILS

The Git: Clone IDE command does not work.

#### Workaround

Use the git CLI to clone the repository.

#### Additional resources

• CRW-2290

### 4.21. PROMETHEUS DOESN'T DISPLAY METRICS WHEN USING THE TECH-PREVIEW OPERATOR CHANNEL

After deploying the CodeReady Workspaces Operator form the **tech-preview** Operator channel in the default namespace and creating a **CheCluster** Custom Resource in the default namespace, the OpenShift Prometheus UI doesn't display the metrics.

#### Workaround

Use the latest Operator channel.

#### Additional resources

• CRW-2326

### 4.22. THE OPENSHIFT CONTAINER PLATFORM CONSOLE DISPLAYS CONFUSING NAMES IN THE BACKUP RELATED TABS

The OpenShift Container Platform console displays confusing names in the backup related tabs. CheBackupServerConfigurations appears rather than the expected name: CodeReady Workspaces instance Specification, CodeReady Workspaces Backup Server, CodeReady Workspaces Backup Specification or CodeReady Workspaces Restore Specification. This issue has no workaround.

#### Additional resources

• CRW-2356

### 4.23. UPGRADING AN INSTANCE WITH THE DEV WORKSPACE ENGINE ENABLED REQUIRES MANUAL STEPS

Upgrading an instance with the Dev Workspace engine enabled requires manual steps.

Support for deploying CodeReady Workspaces 2.12 with the Dev Workspace engine is available as a Technology Preview feature, for OpenShift Container Platform 4.8. Technology Preview features are not supported with Red Hat production service level agreements (SLAs) and might not fully function. Red Hat does not suggest using them in production. These features provide early access to upcoming product features, enabling customers to test functionality and provide feedback during the development process.

#### **Procedure**

- 1. Unsubscribe the CodeReady Workspaces Operator from the latest channel.
- 2. Remove the **Dev Workspace Controller** namespace.
- 3. Subscribe the CodeReady Workspaces Operator to the **tech-preview-latest-all-namespaces** channel.

#### Additional resources

• CRW-2357

# 4.24. KEYCLOAK AND CODEREADY PODS DO NOT RESTART AUTOMATICALLY AFTER ADDING A CONFIGMAP

After adding a ConfigMap to a CodeReady Workspaces instance, the **keycloak** and **codeready** Pods do not restart automatically.

#### Workaround

• Manually restart the **keycloak** and **codeready** pods after adding a ConfigMap.

#### Additional resources

• CRW-2358

### 4.25. UNINSTALLING CODEREADY WORKSPACES FAILS WHEN THE DEV WORKSPACE ENGINE IS ENABLED

When the Dev Workspace engine is enabled, uninstalling CodeReady Workspaces fails, meaning:

• The deletion process doesn't remove the Dev Workspace engine.

#### Workaround

- In the **openshift-operators** namespace:
  - 1. Uninstall the CodeReady Workspaces and Dev Workspace Operators
  - 2. Delete the controller.devfile.io WebHooks.

- 3. Delete the **devworkspace-webhook-server** Deployment.
- 4. Delete the `devworkspace-webhookserver" Service.
- 5. Delete all \*\*.devfile.io and \*\*.org.eclipse.che ConfigMaps.
- 6. Delete all **devworkspace-\*\*** Secrets.

#### Additional resources

• CRW-2363

#### CHAPTER 5. FREQUENTLY ASKED QUESTIONS

Is it possible to deploy applications to an OpenShift cluster from CodeReady Workspaces?

Yes. The user must log in to the OpenShift cluster from their running workspace using oc login.

For best performance, what is the recommended storage to use for Persistent Volumes used with CodeReady Workspaces?

Use block storage.

Is it possible to deploy more than one CodeReady Workspaces instance on the same cluster?

It is not recommended. This feature is subject to removal in a future release.

Is it possible to install CodeReady Workspacesoffline (that is, disconnected from the internet)?

Yes. See Installing CodeReady Workspaces in restricted environments .

Is it possible to use non-default certificates with CodeReady Workspaces?

Yes, you can use self-signed or public certificates. See Installing CodeReady Workspaces on OpenShift Container Platform 3.11.

Is it possible to run multiple workspaces simultaneously?

Yes. See Configuring the number of workspaces a user can run.

What specific changes have been implemented for IBM Power Systems?

The memory limit for some plug-ins has been increased, to give Pods sufficient RAM to run.

Table 5.1. Example memory limits differences between IBM Power System and other architectures

Plug-in	IBM Power System	Other architectures
Che-Theia editor	2G	512M
OpenShift connector	2.5G	1.5G