



Red Hat CodeReady Containers 1.16

Release Notes and Known Issues

Highlighted features and identified problems in CodeReady Containers 1.16

Red Hat CodeReady Containers 1.16 Release Notes and Known Issues

Highlighted features and identified problems in CodeReady Containers 1.16

Kevin Owen

kowen@redhat.com

Legal Notice

Copyright © 2020 Red Hat, Inc.

The text of and illustrations in this document are licensed by Red Hat under a Creative Commons Attribution–Share Alike 3.0 Unported license ("CC-BY-SA"). An explanation of CC-BY-SA is available at

<http://creativecommons.org/licenses/by-sa/3.0/>

. In accordance with CC-BY-SA, if you distribute this document or an adaptation of it, you must provide the URL for the original version.

Red Hat, as the licensor of this document, waives the right to enforce, and agrees not to assert, Section 4d of CC-BY-SA to the fullest extent permitted by applicable law.

Red Hat, Red Hat Enterprise Linux, the Shadowman logo, the Red Hat logo, JBoss, OpenShift, Fedora, the Infinity logo, and RHCE are trademarks of Red Hat, Inc., registered in the United States and other countries.

Linux[®] is the registered trademark of Linus Torvalds in the United States and other countries.

Java[®] is a registered trademark of Oracle and/or its affiliates.

XFS[®] is a trademark of Silicon Graphics International Corp. or its subsidiaries in the United States and/or other countries.

MySQL[®] is a registered trademark of MySQL AB in the United States, the European Union and other countries.

Node.js[®] is an official trademark of Joyent. Red Hat is not formally related to or endorsed by the official Joyent Node.js open source or commercial project.

The OpenStack[®] Word Mark and OpenStack logo are either registered trademarks/service marks or trademarks/service marks of the OpenStack Foundation, in the United States and other countries and are used with the OpenStack Foundation's permission. We are not affiliated with, endorsed or sponsored by the OpenStack Foundation, or the OpenStack community.

All other trademarks are the property of their respective owners.

Abstract

This document lists and briefly describes new and improved features of CodeReady Containers 1.16. It also contains information about potential problems you may encounter while using the software. Where possible, workarounds are described for identified issues.

Table of Contents

PART I. RELEASE NOTES	3
CHAPTER 1. COMPONENT VERSIONS	4
CHAPTER 2. MINIMUM SYSTEM REQUIREMENTS	5
2.1. HARDWARE REQUIREMENTS	5
2.2. OPERATING SYSTEM REQUIREMENTS	5
2.2.1. Microsoft Windows	5
2.2.2. macOS	5
2.2.3. Linux	5
CHAPTER 3. CHANGES AND IMPROVEMENTS	6
3.1. NEW FEATURES	6
3.1.1. Technology Previews	6
3.2. NOTABLE CHANGES	6
PART II. KNOWN ISSUES	7
CHAPTER 4. GENERAL ISSUES	8
4.1. EMBEDDED CERTIFICATES EXPIRE AFTER 30 DAYS	8
4.2. METRICS ARE DISABLED BY DEFAULT	8
4.3. HANG ON STARTUP WITH AN AMD RYZEN 3000 SERIES CPU	8
4.4. ENABLING MULTIPLE OPERATORS REQUIRES MORE MEMORY THAN THE DEFAULT	8
CHAPTER 5. ISSUES ON MACOS	9
5.1. THE SYSTEM TRAY DOES NOT START THE VIRTUAL MACHINE	9
5.2. THE CRC CLEANUP COMMAND ABORTS WITH AN ERROR	9
5.3. HIBERNATION CAUSES VM TIME TO DESYNCHRONIZE	9
CHAPTER 6. ISSUES ON MICROSOFT WINDOWS	10
6.1. UNEXPECTED BEHAVIOR WHEN RUN OUTSIDE OF %WINDRIVE%	10
6.2. CODEREADY CONTAINERS EXPECTS FULLLANGUAGE SUPPORT IN POWERSHELL	10
ADDITIONAL RESOURCES	10

PART I. RELEASE NOTES

This section documents the most important features and bug fixes in the CodeReady Containers 1.16 product.

CHAPTER 1. COMPONENT VERSIONS

CodeReady Containers 1.16 is shipped with the following versions of the main components:

Table 1.1. CodeReady Containers, Component versions

Component	Version
OpenShift Container Platform	4.5.9
OpenShift client binary (oc)	v4.5.9

CHAPTER 2. MINIMUM SYSTEM REQUIREMENTS

CodeReady Containers has the following minimum hardware and operating system requirements.

2.1. HARDWARE REQUIREMENTS

CodeReady Containers requires the following system resources:

- 4 virtual CPUs (vCPUs)
- 9 GB of free memory
- 35 GB of storage space



NOTE

The OpenShift cluster requires these minimum resources to run in the CodeReady Containers virtual machine. Some workloads may require more resources. To assign more resources to the CodeReady Containers virtual machine, see [Configuring the virtual machine](#).

2.2. OPERATING SYSTEM REQUIREMENTS

CodeReady Containers requires the following minimum version of a supported operating system:

2.2.1. Microsoft Windows

- On Microsoft Windows, CodeReady Containers requires the Windows 10 Fall Creators Update (version 1709) or newer. CodeReady Containers does not work on earlier versions of Microsoft Windows. Microsoft Windows 10 Home Edition is not supported.

2.2.2. macOS

- On macOS, CodeReady Containers requires macOS 10.12 Sierra or newer. CodeReady Containers does not work on earlier versions of macOS.

2.2.3. Linux

- On Linux, CodeReady Containers is only supported on Red Hat Enterprise Linux/CentOS 7.5 or newer (including 8.x versions) and on the latest two stable Fedora releases.
- When using Red Hat Enterprise Linux, the machine running CodeReady Containers must be [registered with the Red Hat Customer Portal](#).
- Ubuntu 18.04 LTS or newer and Debian 10 or newer are not officially supported and may require manual set up of the host machine.
- See [Required software packages](#) to install the required packages for your Linux distribution.

CHAPTER 3. CHANGES AND IMPROVEMENTS

This section highlights some of the notable changes introduced in CodeReady Containers 1.16.

3.1. NEW FEATURES

- CodeReady Containers brings a minimal, preconfigured OpenShift Container Platform 4 cluster to your local laptop or desktop computer for development and testing purposes. CodeReady Containers is delivered as a Red Hat Enterprise Linux virtual machine that supports native hypervisors for Linux, macOS, and Microsoft Windows 10.
 - CodeReady Containers is designed for local development and testing on an OpenShift 4 cluster. To run an OpenShift 3 cluster locally, see [Red Hat Container Development Kit](#).
- CodeReady Containers now supports most editions of Microsoft Windows 10. Microsoft Windows 10 Home Edition is not supported.

3.1.1. Technology Previews

Support for these features falls under the [Technology Preview Features Support Scope](#).

- An experimental system tray is included in this release of CodeReady Containers for macOS and Microsoft Windows. To enable the system tray, run the **crc setup** command with the **--enable-experimental-features** flag:

```
$ crc setup --enable-experimental-features
```

On Microsoft Windows, a prompt will appear requiring you to enter your login credentials.

To start CodeReady Containers from the system tray, you must configure the **bundle** and **pull-secret-file** properties:

```
$ crc config set bundle ~/.crc/cache/crc_hyperkit_4.5.9.crcbundle  
$ crc config set pull-secret-file path-to-pull-secret-file
```

The pull secret file can be downloaded from the Pull Secret section of the [Install on Laptop: Red Hat CodeReady Containers](#) page on cloud.redhat.com.

To remove the system tray, run the **crc cleanup** command:

```
$ crc cleanup
```

3.2. NOTABLE CHANGES

- CodeReady Containers 1.16 provides OpenShift Container Platform 4.5.9 as the embedded OpenShift version.

PART II. KNOWN ISSUES

This section describes issues that users of CodeReady Containers 1.16 may encounter, as well as possible workarounds for these issues.

CHAPTER 4. GENERAL ISSUES

Issues affecting all supported platforms.

4.1. EMBEDDED CERTIFICATES EXPIRE AFTER 30 DAYS

Each released **crc** binary includes an embedded system bundle that expires 30 days after the release due to certificates embedded in the OpenShift cluster.

The certificate renewal process is not working as intended as of the CodeReady Containers 1.10 release. Install new versions of CodeReady Containers as they become available to ensure your cluster remains operational. For more information about upgrading CodeReady Containers, see [Upgrading CodeReady Containers](#) in the [Red Hat CodeReady Containers Getting Started Guide](#).

4.2. METRICS ARE DISABLED BY DEFAULT

To ensure CodeReady Containers can run on a typical laptop, some resource-heavy services are disabled by default. One of these services is Prometheus and all of the related monitoring, alerting, and telemetry functionality.

Enabling these features will require more resources than the CodeReady Containers virtual machine uses by default.

4.3. HANG ON STARTUP WITH AN AMD RYZEN 3000 SERIES CPU

The CodeReady Containers virtual machine may hang on startup via the **crc start** command due to a hardware bug.

To resolve this issue, install the latest BIOS update for your motherboard.

4.4. ENABLING MULTIPLE OPERATORS REQUIRES MORE MEMORY THAN THE DEFAULT

The **crc start** command assigns 9 GiB of memory to the CodeReady Containers virtual machine by default. Enabling multiple Operators may increase memory requirements.

See [Configuring the virtual machine](#) in the [Red Hat CodeReady Containers Getting Started Guide](#) to assign additional memory.

CHAPTER 5. ISSUES ON MACOS

This section describes CodeReady Containers issues that affect users on a macOS host.

5.1. THE SYSTEM TRAY DOES NOT START THE VIRTUAL MACHINE

The experimental macOS system tray cannot start the CodeReady Containers virtual machine. To work around this issue, start the CodeReady Containers virtual machine from the command line using the **crc start** command:

```
$ crc start
```

For more information, see [Starting the virtual machine](#) in the [Red Hat CodeReady Containers Getting Started Guide](#).

5.2. THE CRC CLEANUP COMMAND ABORTS WITH AN ERROR

The **crc cleanup** command on macOS returns an error and stops the cleanup process from proceeding.

To resolve this issue, run the following command:

```
$ launchctl stop crc.daemon
```

5.3. HIBERNATION CAUSES VM TIME TO DESYNCHRONIZE

Time in the CodeReady Containers virtual machine can become desynchronized with the time on your host machine. This issue occurs if the CodeReady Containers virtual machine is running when the host machine enters hibernation. To resolve this issue, stop the CodeReady Containers virtual machine and restart it:

```
$ crc stop  
$ crc start
```

CHAPTER 6. ISSUES ON MICROSOFT WINDOWS

This section describes CodeReady Containers issues that affect users on a Microsoft Windows host.

6.1. UNEXPECTED BEHAVIOR WHEN RUN OUTSIDE OF %WINDRIVE%

The Hyper-V driver will fail when the **crc** binary is executed from a network drive. The **crc** binary must be placed in a location on **%WINDRIVE%**. **%WINDRIVE%** is normally set to **C:**.

6.2. CODEREADY CONTAINERS EXPECTS FULLLANGUAGE SUPPORT IN POWERSHELL

The **ConstrainedLanguage** PowerShell mode is supported with exceptions determined by your system administrator.

ADDITIONAL RESOURCES

- See the [Red Hat CodeReady Containers Getting Started Guide](#) for an overview of CodeReady Containers features and an introduction to the use of **OpenShift Container Platform**.
- Report issues with CodeReady Containers or request new features using the [OpenShift Container Platform](#) product with the **crc** component on [Red Hat BugZilla](#).