Cheat sheet

Red Hat Enterprise Linux 10

Red Hat Enterprise Linux (RHEL) is the world's leading enterprise Linux platform. From the public cloud to the edge, it evolves to bring flexibility and reliability to new frontiers.

Essential Linux commands

Some commands everyone needs to know. These are some of the most common commands any RHEL user is likely to use every day.

Task	Command	Example
Change directory	cd	`cd ~/Documents`
List files and directories	ls	`ls`
Get current working directory	pwd	`pwd`
Get URL	curl	`curl http://example.com`
View file contents	cat	`cat ~/Documents/Readme.md`
Find a file by part of the file name	find	`find ~ -name "*.txt"`
Unzip a file	unzip	`unzip example.zip`
Untar a file	tar	`tar --extract --file  example.tar.gz`
Rename or move a file	mv	`mv notes.txt Readme.md`
Log in as tux, to a remote system	ssh	`ssh tux@10.0.1.172`
Elevate permissions	sudo	`sudo mv my.config /etc/`

AI command-line assistant

If you don't know what command you need or how to use it, ask the AI command-line assistant for help:

```
$ c "What command finds all files containing a specific string?"
[bash] grep -rnw "$HOME" -e "example"

$ c "How do I open a port for SSH"
[bash] firewall-cmd --permanent -add-service=ssh
firewall-cmd --reload
```

Package management with DNF

Task	Command
Update installed packages to latest versions	`sudo dnf update`
Update, but remove obsolete packages	`sudo dnf upgrade`
Install a package	`sudo dnf install <example>`
Remove an installed package	`sudo dnf remove <example>`
Search repository for a package	`sudo dnf search <example>`
Get information about a package	`sudo dnf info <example>`
List package groups	`sudo dnf grouplist -v`
Install package group	`sudo dnf groupinstall example-group`
List installed packages	`sudo dnf list installed`

Web console

The RHEL web console is a web-based graphical interface, which is based on the upstream Cockpit project. Without detailed knowledge of the RHEL command-line administrative tools, you can perform system administration tasks, such as inspecting and controlling systemd services, managing storage, configuring networks, analyzing network issues, and inspecting logs.

In many cases, the RHEL web console is installed by default. To install, configure, and launch Cockpit:

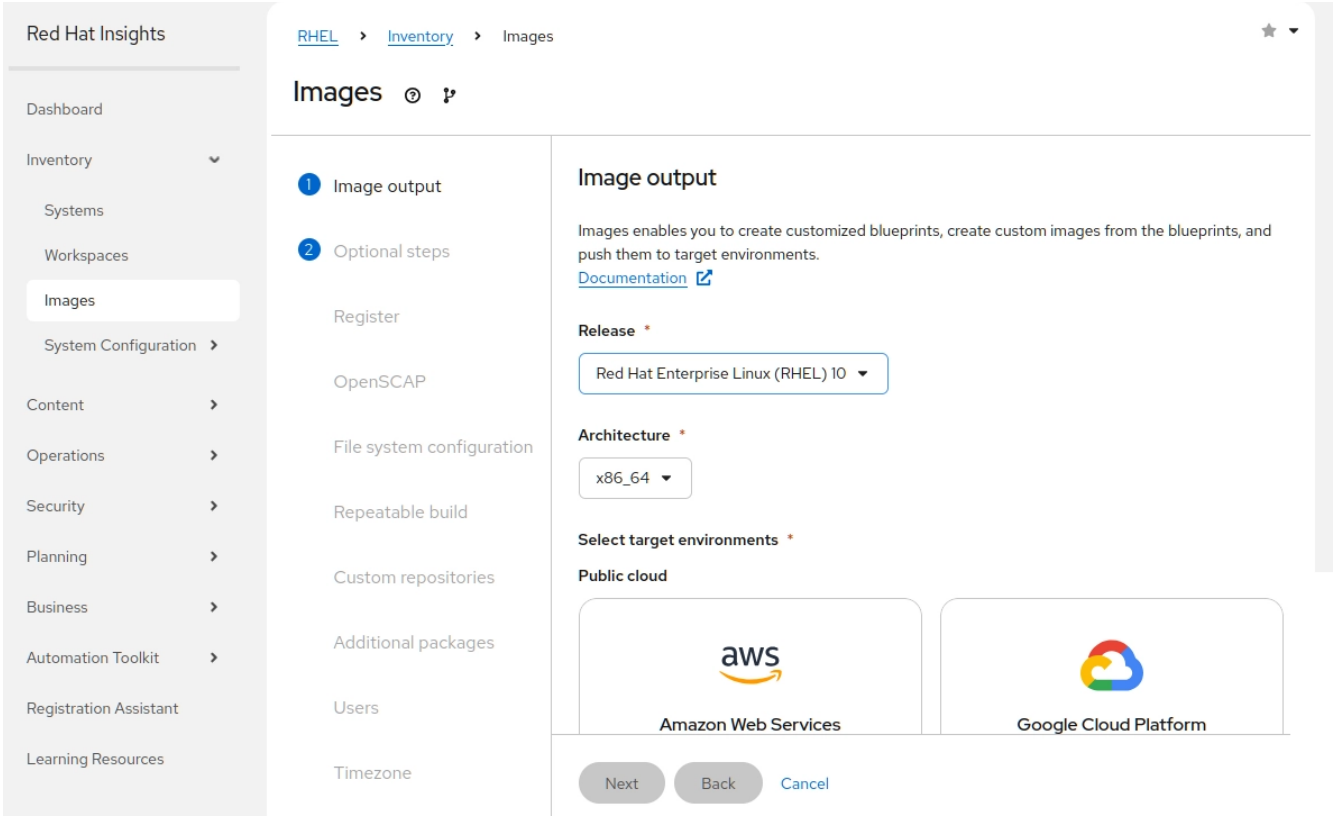
```
$ sudo dnf install cockpit
$ sudo systemctl enable --now cockpit.socket
$ sudo firewall-cmd --add-service=cockpit --permanent
$ sudo firewall-cmd --reload
```

In a web browser, connect to `https://hostname:9090` to access the web console.

Red Hat Insights Image Builder

Creating a "golden image" of an operating system (OS) is a popular and recommended practice for deploying new systems to any environment. This includes physical and virtual images for your data center, the public clouds, and edge deployments. They ensure rapid deployments that are consistent, repeatable, and conform to your unique Standard Operating Environment requirements. You can build an OS image using Insights Image Builder with console.redhat.com.

First, click **Create blueprint** to define what you want included in your OS image. You can build an image for public clouds, your private cloud, bare metal, and for a WSL install. You can customize your image so it's registered after install, and to include any number of packages and services by default.



Follow the prompts to create your image, or skip to the end to accept the default build.

Containers and image mode

Define your image in a Containerfile:

```
FROM registry.redhat.io/rhel10/rhel-bootc:latest
RUN echo "echo hello bootc" > /usr/bin/hello
RUN chmod +x /usr/bin/hello
```

Build the image using Podman:

```
$ podman build --tag quay.io/tux/my_rhel10:bootc .
```

Optionally, create a Podman machine:

```
$ podman machine init
$ podman machine set --rootful
$ podman machine start
```

Push the image to your repository:

```
$ podman login quay.io
$ podman push quay.io/tux/my_rhel10:bootc
```

Run the bootc container with Podman:

```
$ podman-bootc run --filesystem=xfs quay.io/tux/my_rhel10:bootc
```

Windows subsystem for Linux (WSL)

Using Insights image builder, create a customized **WSL - Windows Subsystem for Linux (.tar.gz)** image.

Download the `.tar.gz` image to your Windows machine.

Import the image. For example, in PowerShell:

```
PS> wsl --import rhel10wsl D:\WLS\rhel10wsl  \Download\my_image.tar.gz
```

Launch the image:

```
PS> wsl -d rhel10wsl
```