# Red Hat build of OpenJDK 21

## Packaging Red Hat build of OpenJDK 21 applications in containers

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## Abstract

Red Hat build of OpenJDK is a Red Hat offering on the Red Hat Enterprise Linux platform. The Packaging Red Hat build of OpenJDK 21 applications in containers guide provides an overview of this product and explains how to package the applications in a container.

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# PROVIDING FEEDBACK ON RED HAT BUILD OF OPENJDK DOCUMENTATION

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**Procedure**

1. Click the following link to **create a ticket**.
2. Enter a brief description of the issue in the **Summary**.
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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. RED HAT BUILD OF OPENJDK APPLICATIONS IN CONTAINERS

Red Hat build of OpenJDK images have default startup scripts that automatically detect application **JAR** files and launch Java. The script's behavior can be customized using environment variables. For more information, see /**help.md** in the container.

The Java applications in the /**deployments** directory of the OpenJDK image are run when the image loads.

NOTE

Containers that contain Red Hat build of OpenJDK applications are not automatically updated with security updates. Ensure that you update these images at least once every three months.

Application **JAR** files can be fat JARs or thin JARs.

- Fat JARs contain all of the application's dependencies.
- Thin JARs reference other JARs that contain some, or all, of the application's dependencies. Thin JARs are only supported if:
  - They have a flat classpath.
  - All dependencies are JARs that are in the /**deployments** directory.

# CHAPTER 2. DEPLOYING RED HAT BUILD OF OPENJDK APPLICATION IN CONTAINERS

You can deploy Red Hat build of OpenJDK applications in containers and have them run when the container is loaded.

**Procedure**

- Copy the application **JAR** to the **/deployments** directory in the image **JAR** file.
  For example, the following shows a brief Dockerfile that adds an application called **testubi.jar** to the Red Hat build of OpenJDK 21 UBI8 image:

```
FROM registry.access.redhat.com/ubi8/openjdk-17

COPY target/testubi.jar /deployments/testubi.jar
```

# CHAPTER 3. UPDATING RED HAT BUILD OF OPENJDK CONTAINER IMAGES

To ensure that an Red Hat build of OpenJDK container with Java applications includes the latest security updates, rebuild the container.

### Procedure

1. Pull the base Red Hat build of OpenJDK image.
2. Deploy the Red Hat build of OpenJDK application. For more information, see Deploying Red Hat build of OpenJDK applications in containers.
   The Red Hat build of OpenJDK container with the Red Hat build of OpenJDK application is updated.

### Additional resources

- For more information, see Red Hat OpenJDK Container images .

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