

Release E - Build

This page describes how to build release E version of Non-RT RIC.

Note: In general, there is no need to build the images manually. All images for the release are available in nexus image repositories. Please refer to the page [Release E - Run in Docker](#) for running the release E Non-RT RIC.

Details of the architecture can be found from [Release E](#) page.

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Project Requirements

- Java 11 (make sure that JAVA_HOME environment variable points to correct Java version)
- Docker and docker-compose (latest)
- git (latest) - for downloading code repos
- Maven 3.6
 - **Note:** There are several build-time dependencies for ONAP Maven modules. Your Maven build settings will need to access the ONAP Maven repos, as described on [this ONAP wiki page](#). (A [sample ONAP Maven settings file](#) is available).

Build Code

Build nonrtic containers

Download the nonrtic repo::

```
git clone "https://gerrit.o-ran-sc.org/r/nonrtic" -b e-release
```

Build the code and create docker images

To build docker images of r-app-catalogue, information-coordinator-service, policy-management-service, helm-manager, dmaap-adaptor, dmaap-mediator-producer as well as images for the use caseso-du-slice-assurance ando-ru-closed-loop-consumer.

```
cd nonrtic
mvn clean install -Dmaven.test.skip=true
```

After build, you should be able to see logs like this:

```

[INFO] --- maven-failsafe-plugin:2.22.2:integration-test (default) @ dmaap-adaptor ---
[INFO] Tests are skipped.
[INFO]
[INFO] --- maven-failsafe-plugin:2.22.2:verify (default) @ dmaap-adaptor ---
[INFO] Tests are skipped.
[INFO]
[INFO] --- maven-install-plugin:2.5.2:install (default-install) @ dmaap-adaptor ---
[INFO] Installing /Users/chengkaiyan/oran/nonrtic/dmaap-adaptor-java/target/dmaap-adaptor-1.0.1-SNAPSHOT.jar to /Users/chengkaiyan/.m2/repository/org/o-ran-sc/nonrtic/dmaap-adaptor
[INFO] Installing /Users/chengkaiyan/oran/nonrtic/dmaap-adaptor-java/pom.xml to /Users/chengkaiyan/.m2/repository/org/o-ran-sc/nonrtic/dmaap-adaptor/1.0.1-SNAPSHOT/dmaap-adaptor
[INFO]
[INFO] --- docker-maven-plugin:0.30.0:build (push-dmaap-adaptor-image) @ dmaap-adaptor ---
[INFO] Building tar: /Users/chengkaiyan/oran/nonrtic/dmaap-adaptor-java/target/docker/o-ran-sc/nonrtic-dmaap-adaptor/1.0.1-SNAPSHOT/tmp/docker-build.tar
[INFO] DOCKER> [o-ran-sc/nonrtic-dmaap-adaptor:1.0.1-SNAPSHOT]: Created docker-build.tar in 766 milliseconds
[INFO] DOCKER> [o-ran-sc/nonrtic-dmaap-adaptor:1.0.1-SNAPSHOT]: Built image sha256:4d0dae
[INFO] DOCKER> [o-ran-sc/nonrtic-dmaap-adaptor:1.0.1-SNAPSHOT]: Tag with 1.0.1-SNAPSHOT,latest
[INFO]
[INFO] -----< org.o-ran-sc:nonrtic >-----
[INFO] Building nonrtic 2.2.0-SNAPSHOT [6/6]
[INFO] -----[ pom ]-----
[INFO]
[INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ nonrtic ---
[INFO]
[INFO] --- maven-install-plugin:2.4:install (default-install) @ nonrtic ---
[INFO] Installing /Users/chengkaiyan/oran/nonrtic/pom.xml to /Users/chengkaiyan/.m2/repository/org/o-ran-sc/nonrtic/2.2.0-SNAPSHOT/nonrtic-2.2.0-SNAPSHOT.pom
[INFO]
[INFO] Reactor Summary:
[INFO]
[INFO] al-policy-management-service 2.3.1-SNAPSHOT ..... SUCCESS [ 25.954 s]
[INFO] information-coordinator-service 1.2.1-SNAPSHOT ..... SUCCESS [ 19.748 s]
[INFO] r-app-catalogue 1.0.2-SNAPSHOT ..... SUCCESS [ 13.834 s]
[INFO] helm-manager 1.1.1-SNAPSHOT ..... SUCCESS [ 15.311 s]
[INFO] dmaap-adaptor 1.0.1-SNAPSHOT ..... SUCCESS [ 19.799 s]
[INFO] nonrtic 2.2.0-SNAPSHOT ..... SUCCESS [ 0.209 s]
[INFO]
[INFO] BUILD SUCCESS
[INFO] -----

```

If the build was successful images with following name and tag shall be built, use the command 'docker images' to view newly built images in the local docker registry.

```

$ docker images
o-ran-sc/nonrtic-r-app-catalogue          1.0.2-SNAPSHOT
o-ran-sc/nonrtic-information-coordinator-service 1.2.1-SNAPSHOT
o-ran-sc/al-policy-management-service      2.3.1-SNAPSHOT
o-ran-sc/nonrtic-helm-manager              1.1.1-SNAPSHOT
o-ran-sc/nonrtic-dmaap-adaptor             1.0.1-SNAPSHOT
o-ran-sc/nonrtic-dmaap-mediator-producer   1.0.1-SNAPSHOT
o-ran-sc/nonrtic-o-du-slice-assurance      1.0.2
o-ran-sc/nonrtic-o-ru-closed-loop-consumer 1.0.1

```

Build near-rt-ric-simulator container

Download the near-rt-ric-simulator repo (defaults to master branch - the simulator supports all available A1 versions):

```
git clone "https://gerrit.o-ran-sc.org/r/sim/al-interface"
```

Create docker image

To create docker image near-rt-ric-simulator (note that the given image name must match the name given in docker startup later):

```
cd al-interface/near-rt-ric-simulator
docker build -t near-rt-ric-simulator:latest .
```

You can check that the image is in docker using:

```

$ docker images
o-ran-sc/nonrtic-r-app-catalogue          1.0.2-SNAPSHOT
o-ran-sc/nonrtic-information-coordinator-service 1.2.1-SNAPSHOT
o-ran-sc/al-policy-management-service      2.3.1-SNAPSHOT
o-ran-sc/nonrtic-helm-manager              1.1.1-SNAPSHOT
o-ran-sc/nonrtic-dmaap-adaptor             1.0.1-SNAPSHOT
o-ran-sc/nonrtic-dmaap-mediator-producer   1.0.1-SNAPSHOT
o-ran-sc/nonrtic-o-du-slice-assurance      1.0.2
o-ran-sc/nonrtic-o-ru-closed-loop-consumer 1.0.1
near-rt-ric-simulator                     latest

```

Build nonrtric / Control panel and gateway containers

Download the nonrtric repo:

```
git clone "https://gerrit.o-ran-sc.org/r/portal/nonrtric-controlpanel" -b e-release
```

Build the code and create docker images

```
cd nonrtric-controlpanel
cd nonrtric-gateway
mvn clean install -Dmaven.test.skip=true
docker build --build-arg JAR=nonrtric-gateway-1.1.0-SNAPSHOT.jar -t o-ran-sc/nonrtric-gateway:1.1.0-SNAPSHOT .

cd ../webapp-frontend
docker build -t o-ran-sc/nonrtric-controlpanel:2.3.0-SNAPSHOT .
```

You can check that the image is in docker using:

```
$ docker images
o-ran-sc/nonrtric-r-app-catalogue          1.0.2-SNAPSHOT
o-ran-sc/nonrtric-information-coordinator-service  1.2.1-SNAPSHOT
o-ran-sc/al-policy-management-service        2.3.1-SNAPSHOT
o-ran-sc/nonrtric-helm-manager              1.1.1-SNAPSHOT
o-ran-sc/nonrtric-dmaap-adaptor             1.0.1-SNAPSHOT
o-ran-sc/nonrtric-dmaap-mediator-producer     1.0.1-SNAPSHOT
o-ran-sc/nonrtric-o-du-slice-assurance       1.0.2
o-ran-sc/nonrtric-o-ru-closed-loop-consumer  1.0.1
near-rt-ric-simulator                      latest
o-ran-sc/nonrtric-gateway                  1.1.0-SNAPSHOT
o-ran-sc/nonrtric-controlpanel              2.3.0-SNAPSHOT
```