

Distroless Container Images

Overview

"Distroless" images contain only your application and its runtime dependencies. They do not contain package managers, shells or any other programs you would expect to find in a standard Linux distribution.

Default Users

| Users | id | group |
|---------|-------|-------|
| root | 0 | 0 |
| nonroot | 65532 | 65532 |

To define the nonroot user in a kubernetes pod/deployment you will need to set the securityContext as defined below:

```
spec:
  template:
    spec:
      securityContext:
        runAsUser: 65532
        fsGroup: 65532
```

Example Creating a Docker Image for Go Application

```
# Start by building the application.
FROM golang:1.18 as build

WORKDIR /go/src/app
COPY . .

RUN go mod download
RUN CGO_ENABLED=0 go build -o /go/bin/app

# Now copy it into our base image.
FROM gcr.io/distroless/static-debian11
COPY --from=build /go/bin/app /
CMD ["/app"]
```

References

| Reference | URL |
|---|---|
| "Distroless" Container Images | https://github.com/GoogleContainerTools/distroless |
| How to add a directory where non-root user can write #427 | https://github.com/GoogleContainerTools/distroless/issues/427 |