



Create Docker Volumes:

```
docker volume create --name mosquitto
docker volume create --name myRailsDb
docker volume create --name myRailsImages
```

Create and Run Containers:

- Data Components

```
docker run --name myMongo -v myRailsDb:/data/db -p 27017:27017 -d mongo
docker run --link=myMongo:mongodb -p 3000:3000 --name myRids -d dbristow/rids
docker run --link=myMongo:mongodb -p 3006:3006 --name myRlds -d dbristow/rlds
docker run --link=myMongo:mongodb -p 3007:3007 --name myPpds -d dbristow/ppds
```

- MQTT Components:

```
docker run -it --name myMqttBrkr -p 1883:1883 -p 9001:9001 -v mosquitto:/mosquitto
-d eclipse-mosquitto
docker run --link=myMqttBrkr:mqtt -p 3005:3005 --name myIsrs -d dbristow/isrs
docker run --link=myMqttBrkr:mqtt --link=myRlds:rlds --name myIsms -d dbristow/isms
docker run --link=myMqttBrkr:mqtt -p 3010:3010 --name myIsts -d dbristow/ists
docker run --link=myMqttBrkr:mqtt --link=myRlds:rlds --name myIpts -d dbristow/ipts
docker run --link=myMqttBrkr:mqtt --link=myRlds:rlds --name myIstc -d dbristow/istc
```

- File Handler Component:

```
docker run --name myMrfm -v myRailsImages:/usr/djb/public -p 3003:3003 -d
dbristow/mrfm
```

- SPAs:

```
docker run --link=myRids:rids --link=myIsrs:isrs -p 3002:8080 --name myRsrn -d
dbristow/rsrn
```

```
docker run --link=myRids:rids --link=myMrfm:mrfm -v
myRailsImages:/usr/djb/dist/static/img -p 3001:8080 --name myMrim -d dbristow/mrim
docker run --link=myPpds:ppds -p 3008:8080 --name myMppm -d dbristow/mppm
docker run --link=myRlds:rlds -p 3004:8080 --name myMrlm -d dbristow/mrlm
```

Run SPAs

- Model Railroad Inventory Manager <http://localhost:3001>
- Rolling Stock RFID Manager <http://localhost:3002>
- Model Projects and Purchases Manager <http://localhost:3008>
- Model Railroad Layout Manager <http://localhost:3004>

Notes

To install MRIM only execute the cyan backgrounded commands.

Helpful Commands

docker inspect myRailsImages – provides details about the volume myRailsImages

docker images – shows all the images in the local repository

docker ps -a – shows all containers and their execution status

to use Node Red

```
docker run --network host -it -p 1880:1880 --name myNodeRed nodored/node-red
```