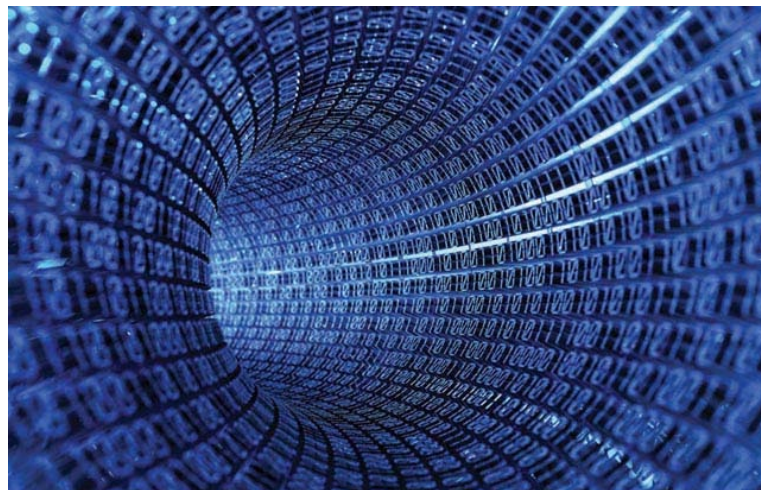
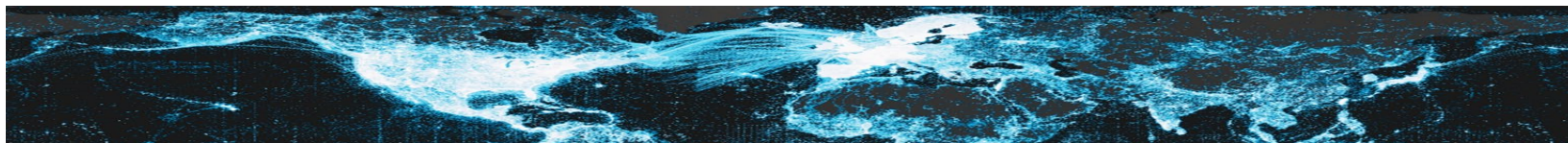


Intro to Docker



Manash Shah, Markus Skyttner



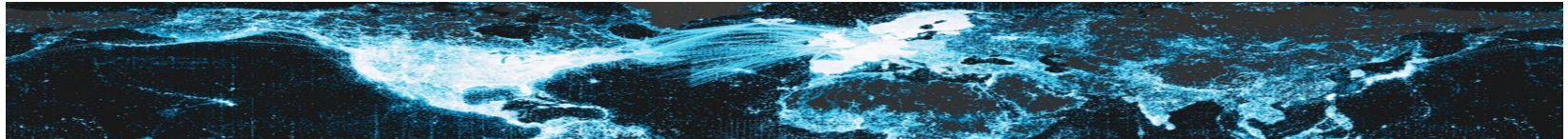
Docker file

Build binary “container” images – ie compilation step in Makefile

Text document – Dockerfile - that contains commands to assemble an image

Eg: <https://github.com/bioatlas/ala-docker/blob/develop/collectory/Dockerfile>

System composition is defined in text file – docker-compose.yml



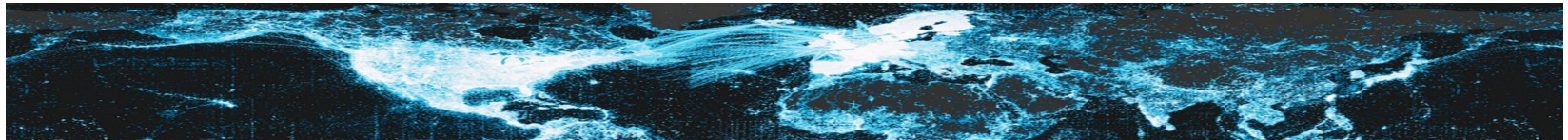
Docker image

Built from the instructions for a complete and executable version of an application

Relies on the host OS kernel.

Create one or multiple instances from the image

Eg: <https://hub.docker.com/r/bioatlas/ala-collectory>



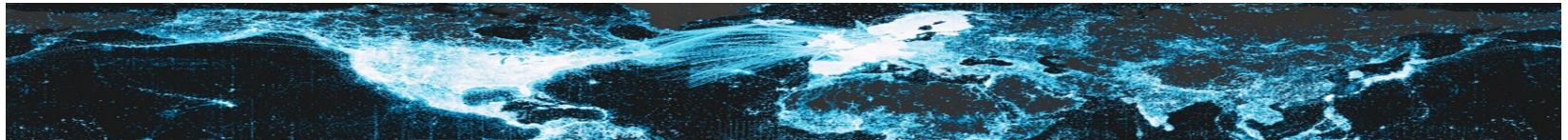
Docker container

instance of a docker image

complete software package , isolated

single OS kernel

to create services

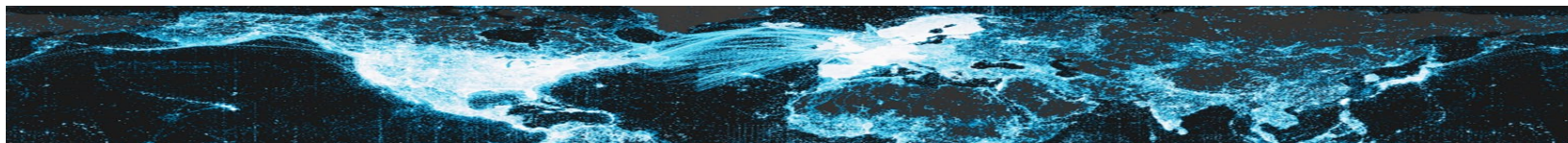


docker-compose

tool for defining and running multi-container Docker applications.

YAML file to configure your application's services.

configure, create , start , stop, remove etc. services .



Docker Swarm mode

Production deployment – a “cluster” or “swarm” of servers

Cluster management and orchestration

Multiple Docker hosts

Managers and workers

State of the system stored in “named volumes”

