Creating a web-like experience for Cyclone – Desktop instructions

In order to access Cyclone in a browser environment, you will need to run a Docker container of Cyclone which will run Cyclone locally.

# What is Docker?

Docker is a tool for creating and running applications in containers.

A *Docker image* is a lightweight, portable box that packages everything an application needs to run (code, libraries, settings etc) regardless of the local environment (operating system, compiler etc). The purpose is to ensure that the code in the container works consistently in different environments.

A *Docker container* is an instance of an image. A container can be thought of as the executable that you will run.

# Getting Cyclone

To get a local copy of Cyclone you will need to download Docker and pull a Cyclone image from Docker. These two steps need to be done only once.

## Download Docker

Download Docker Desktop at <https://www.docker.com/> and create an account.

## Get (pull) a Cyclone image

* Open Docker Desktop.
* Open the terminal (bottom right).

Machine generated alternative text:
Containers 
Images 
Volumes 
Builds 
Docker Scout 
Extensions 
Engine running 
docker desktop 
RAM 101 G8 
Containers 
Give feedback 
Q Search for images, containers, volumem 
Your running containers show up here 
A container is an isolated environment for your code 
F 7 v3t•' node 
JVC:• —p 
CDP Z • pack* 
View more in the Learning_center 
CPU 
What is a container? 
5 mins 
- Ga avail of 
How do I run a container? 
6 mins 
Disk 
BETA 
Terminal 
V •„4.34.3 

* Click Enable to activate the terminal feature in Docker Desktop.
* In the terminal, type the following to get a Cyclone image.

docker pull algorun/cyclone

* You can exit from the terminal window.
* In the Docker Desktop window, click on Images in the left navigation panel. You should see that you have an image of Cyclone.

Machine generated alternative text:
docker desktop 
Containers 
Images 
Volumes 
Builds 
Docker Scout 
Extensions 
Engine running 
Q Search for images, containers, volumes... 
Images 
Give feedback 
Local 
Hub 
3 images 
O Bytes / 816.9 MB in use 
Search 
Name 
bstigler/dockerl 01 tutorial 
4c6ba1699966 
dockerl 01 tutorial 
4c6ba1699966 
alpine/git 
22d84a66cda4 
algorun/cyglone 
ea51gcd97518 
Ctrl+K 
Created 
2 years ago 
2 years ago 
2 years ago 
3 years ago 
O 
Last refresh: 19 minutes ago 
Tag 
latest 
latest 
latest 
latest 
Status 
Unused 
Unused 
Unused 
Unused 
Size 
46.96 MB 
46.96 MB 
43.6 MB 
726.32 MB 
Actions 
Showing 4 items 
RAM 2.03 GB CPU 
Disk GB avail. of 
BETA 
Win k Wo rksf aeé 
4.3 

## Create a Cyclone container

* Click the arrow to run the image. This will create a container for Cyclone.
* In the pop-up window "Run a new container", enter 0 in "Ports" to assign randomly generated host ports. You can also name the container.

There are several indicators to let you know that the container is active and ready for use.

* The cube icon next to the name of the specific container, in this case "lucid\_swartz" is green (active) vs gray (inactive).
* The status panel on the right indicates that it is running.

## Run a Cyclone container

To run Cyclone using this active container, click on the link, in this case "32769:8765" or type in a browser the corresponding localhost url, in this case <http://localhost:32769>.

Machine generated alternative text:
docker desktop 
Containers 
Images 
Volumes 
Builds 
Docker Scout 
Extensions 
Engine running 
Containers / lucid_swartz 
lucid_swartz 
e 364e3c33cOed 
32769:8765 
Q Search for images, containers, volumes... 
algorun/cyclone:latest 
Ctrl+K 
STATUS 
Running (0 seconds ago) 
Logs 
2024-10-24 
Inspect 
Bind mounts 
AlgoRun server 
Exec 
Files 
Stats 
is listening on port: 8765. 
Check port mapping for the visible port number 
BETA 
11 
RAM 1.25 GB CPU 0.12% 
Disk GB avail. of GB 
4.3 

## Stop and rerun a Cyclone container

When you are done using Cyclone, be sure to stop it using the right-hand control panel. You should see that the cube turns gray.

To run Cyclone again, you can use the previously created containers.

* Click the arrow to activate it.
* Click on the name of the container to find the link to open it. Note that the port number has likely changed.

Machine generated alternative text:
Containers 
Images 
Volumes 
Builds 
Docker Scout 
Extensions 
Engine running 
docker desktop 
Search 
Q Search for images, containers, volumes... 
Ctrl+K 
Containers 
Give feedback 
Container CPU usage 
No containers are running. 
Container memory usage 
No containers are running. 
OID Only show running containers 
Name 
Walkthroughs 
RAM 1.23 GB CPU 
objective curran 
580dOcc91837 
lucid swartz 
364e3c33cOed 
Image 
algorun/csg 
algorun/csg 
Status 
Exited (137) 
Exited (137) 
Port(s) 
0:8765 
0:8765 
CPU (0/0) 
N/A 
N/A 
Last started 
9 minutes ago 
6 minutes ago 
Show charts 
Actions 
Showing 2 items 
x 
Multi-container applications 
8 mins 
Disk GB avail. of 
docker 
init 
Containerize your application 
3 mins 
BETA Worksfaeé 
4.3 

You can delete containers at any time, especially if you have multiple Cyclone containers. It is advisable to have only one.

If you no longer want to use Cyclone, you can delete the image. This will remove all of Cyclone's code from your computer.