MEAN Stack with Docker for Windows 7 Setup

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June 22, 2015

# Overview

One of the nice things about docker-machine and docker-compose is how easily you can put together a somewhat sophisticated development sandbox without the need to download separate point products and cobble everything together. It provides easy startup and shutdown that environment as well.

# Install Docker Machine

## Download VirtualBox

Download Oracle VirtualBox for your platform

<https://www.virtualbox.org/wiki/Downloads>

## Download Docker Machine

Download Docker Machine

<https://docs.docker.com/machine/>

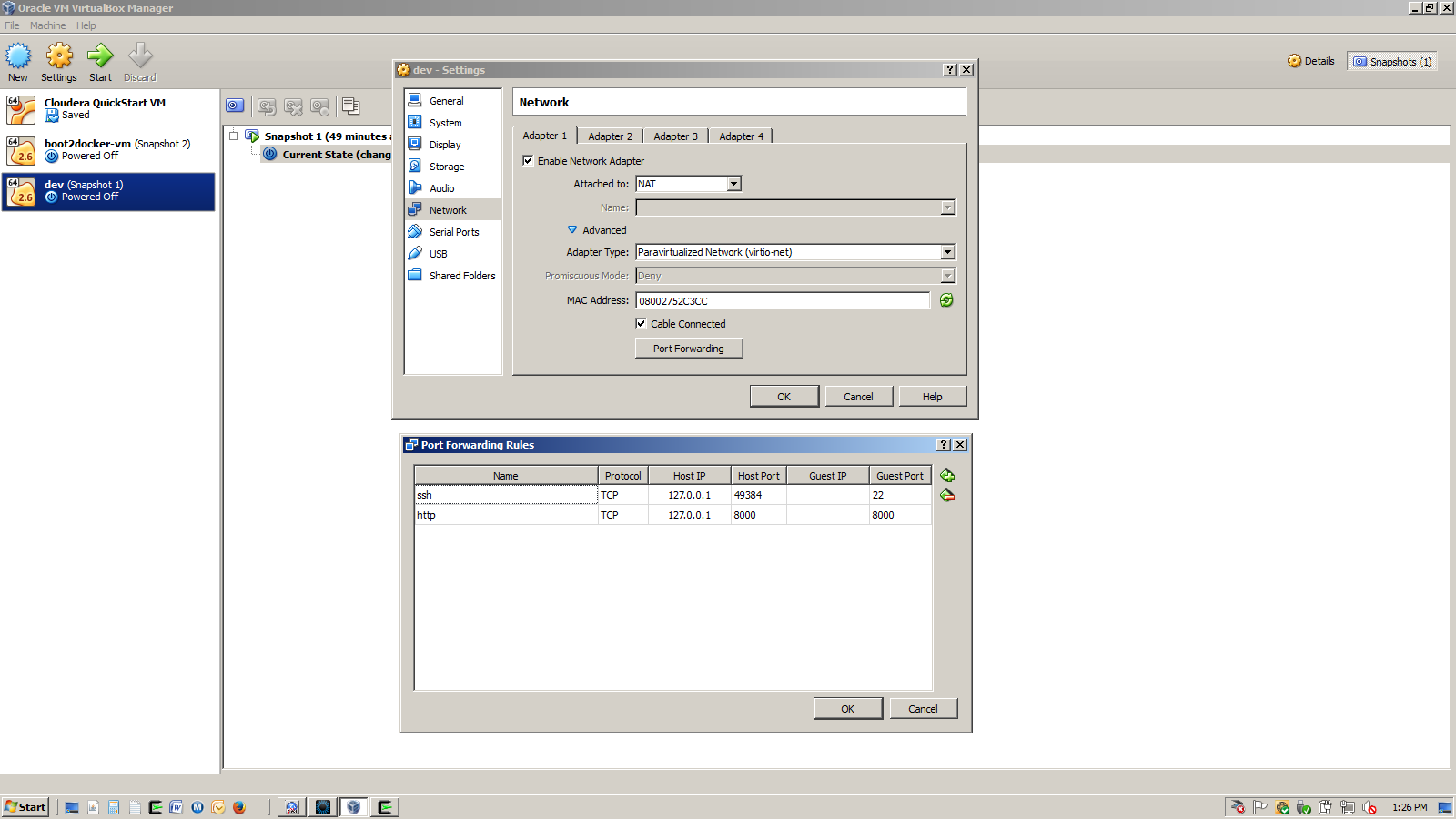
You need to setup your environment so the docker machine executable is on your PATH. Since I use Cygwin on Windows I also set an alias since the executable name is actually quite a bit longer than the documentation reference to ***docker-machine***.

## Create Docker VM

docker-machine create --driver **virtualbox** dev

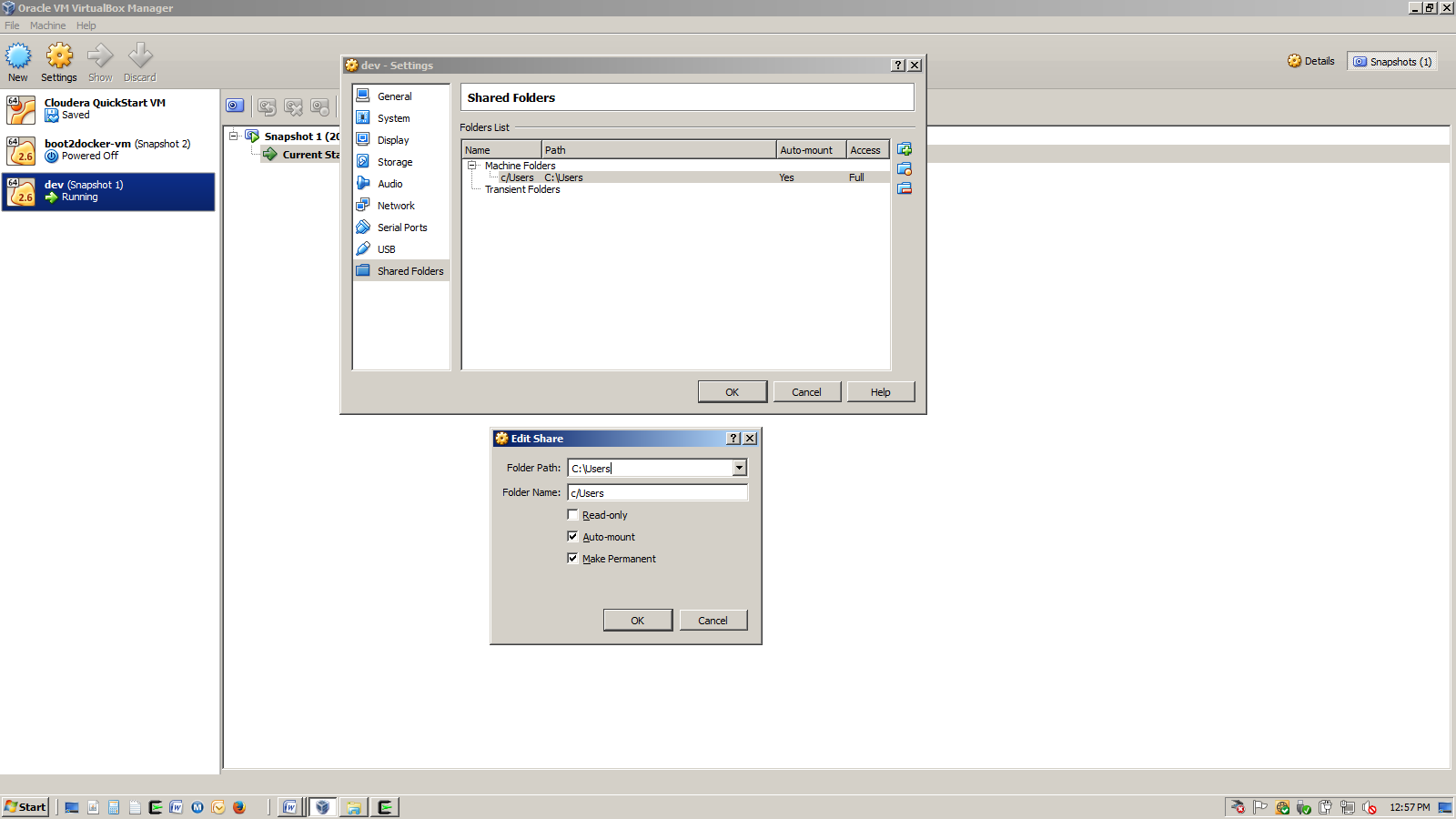
## VirtualBox Port Forwarding

In order to access port 3000 from your client machine you need to set "port forwarding" for the Docker VM in VirtualBox.



## VirtualBox Setting Up Shared Local Drive

To share a local drive on the client machine with the Docker VM in VirtualBox.



## Restart Docker VM

This will enable port forwarding/file sharing with the client machine

docker-machine stop dev

docker-machine start dev

# Install Docker Compose

Create /var/lib/bootlocal.sh so an alias that will setup to run docker-compose every time the Docker VM boots.

## Setting Up Docker Compose (Windows 7 hack)

This is strictly a windows hack and as far as I know not needed on other platforms.

docker-machine ssh dev

sudo touch /var/lib/boot2docker/bootlocal.sh

sudo chmod 777 /var/lib/boot2docker/bootlocal.sh

sudo cat << EOF > /var/lib/boot2docker/bootlocal.sh

echo 'alias docker-compose='"'"'docker run \

-v \$(pwd):/app \

-v /var/run/docker.sock:/var/run/docker.sock \

-ti dduportal/docker-compose:1.2.0'"'" >> /home/docker/.ashrc

EOF

## Poweroff and Restart Docker VM

This will setup the docker-compose alias

docker-machine stop dev

docker-machine start dev

## Testing docker-compose

docker-machine ssh dev

docker-compose

# Install MEAN on Client Machine

Since the Docker VM share called **/c/Users** is shared directory with your client machine, any changes on your client machine during development will automatically be available to the Docker VM.

Note**: <username> is your windows username.**

## Setup Shared Directory on Client Machine

Make a directory called C:/Users/<username>/git on your client machine.

**Note: Currently /c/Users is the only supported shared directory available for docker-compose volumes when sharing directories with a windows machine.**

## Checkout mean from github

git clone https://github.com/meanjs/mean.git

git checkout 0.4.0

git clone https://github.com/kskalvar/mean-stack.git

copy **Dockerfile** **docker-compose.yml** from the mean-stack directory to the mean directory

You will need to modify the following line in the mean directory: config/env/development.js

db: "mongodb://***db***/mean-dev",

# Build MEAN using docker-compose

docker-machine ssh dev

cd /c/Users/<username>/git/mean

docker-compose up

## Testing MEAN

Test from Docker VM "dev" directly, or your client using http.

curl http://localhost:30000/

# docker-compose Commands

docker-compose stop

docker-compose start

docker-compose restart

docker-compose rm -f

# Attaching to a Running Docker Container

docker exec -it app\_web\_1 bash