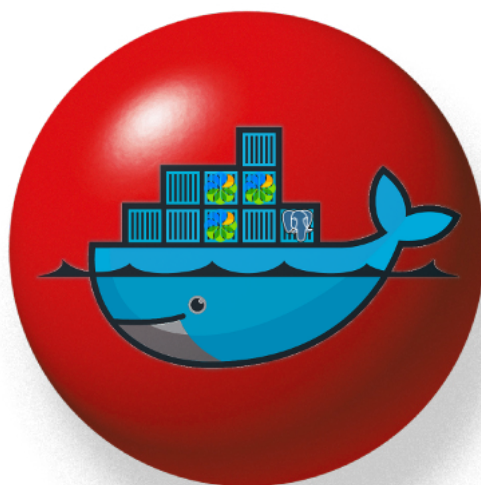


# The Alfresco Docker Project

Thore P. C. Kragelund, Redpill Linpro

February 4, 2015



Date	Initials	Editorial comment
14-08-2014	thok	Initial document
02-11-2014	thok	Added project setup instructions section
04-11-2014	thok	Added project run instructions section
07-11-2014	thok	Added project development info section
10-11-2014	thok	Updated recommended docker-utils folder location + version
19-11-2014	thok	Generalising versions in examples
01-12-2014	thok	Minor update following docker-utils-1.4.x
07-01-2014	thok	Added info on project profiles

# Contents

<b>1</b>	<b>Introduction</b>	<b>2</b>
<b>2</b>	<b>Preparation</b>	<b>2</b>
2.1	Setup prerequisites . . . . .	2
2.1.1	Alfresco . . . . .	2
2.1.2	Docker . . . . .	2
2.1.3	Alfresco-Docker utilities package . . . . .	2
2.2	Prepare local environment . . . . .	2
2.3	Install project . . . . .	2
2.4	Project profiles . . . . .	3
<b>3</b>	<b>Operation</b>	<b>3</b>
3.1	Start project . . . . .	3
3.2	Update project . . . . .	3
<b>4</b>	<b>Development</b>	<b>3</b>

## 1 Introduction

Modern Linux kernels provide features for kernel containment, ie. the possibility to share the kernel amongst separate processes running in isolated environments, thus combining the advantages from chrooting and virtual machines. Docker facilitates user space interfaces to these features, such as LXC (Linux Containers), to provide a way to package and distribute contained applications, using a fraction of the space and resources of conventional virtual machines.

## 2 Preparation

Let's initiate the process of getting an Alfresco project up and running in Docker containers...

### 2.1 Setup prerequisites

#### 2.1.1 Alfresco

We need to extract some files from the Alfresco zip package. You should know how, where and when to get it ;-)

#### 2.1.2 Docker

Install Docker engine by way of your favourite Linux distro, use apt-get, yum, pacman, yast, etc. As of this writing we are looking at docker version 1.4.1. Don't forget to kick the daemon when ready (start docker engine - some distros may do this automatically). Add yourself to the group 'docker' to avoid having to sudo every move from now on - which is bad - AND you will be on your own when anything breaks.

#### 2.1.3 Alfresco-Docker utilities package

Get it from your local Nexus, ie. <https://maven.redpill-linpro.com/nexus/index.html#nexus-search;quick~alfresco-docker-utils>

## 2.2 Prepare local environment

Deployment folder, data shared across docker instances and persistent data in general will be located on the host file system, so this needs to be created alongside the utility scripts. The Docker tomcat7 user has uid/gid 71, so this also needs to be the owner of the local file share. Make a user with this uid/gid as needed. You can call her docker-tomcat, or anything you like. Now run the following commands (replacing x.y.z with the actual version number of your Alfresco install package):

```
sudo mkdir -p /opt/alfresco/docker-utils
cd /opt/alfresco/docker-utils
sudo tar xvzf <path-to-utils-package>/alfresco-docker-utils-x.y.z-src.tar.gz
sudo chown -R 71:71 /opt/alfresco
cp <path-to-alfresco-package>/alfresco-<community|enterprise>-x.y.z.zip /tmp
./sudock.sh ./alf_overlay_prepare.sh <project> /tmp/alfresco-<community|enterprise>-x.y.z.zip
```

We are now rolling and ready to rock...

## 2.3 Install project

For our first run it is optional to put project AMPs in the docker-utils/resources/repo-amps and docker-utils/resources/share-amps folders. When ready, run the following command to install project "overlay". Images will be automatically downloaded as needed:

```
(cd /opt/alfresco/docker-utils)
./sudock.sh ./alf_overlay_install.sh <project>
```

## 2.4 Project profiles

To facilitate multiple running projects, it is possible to define different environments for every project. This includes port numbers as well as Alfresco versions. The default profile resides at /opt/alfresco/docker-utils/profiles/default, and values herein can be overridden by creating a file called /opt/alfresco/docker-utils/profiles/<project> with customized values. Even if you're only running a single project with Alfresco-Docker, you may want to alter default port numbers (ie. port 80 for Kibana Log UI) or Alfresco version.

# 3 Operation

Having chalked the court, let's play...

## 3.1 Start project

Whenever you feel like a fresh start, now and in the future, just run the following command (and don't be alarmed by any complaints about non-existing containers):

```
(cd /opt/alfresco/docker-utils)
./alf_reset.sh <project>
```

If all went well, the following "contained" services should now be available on localhost:

Service	URL
PostgreSQL (repo database server)	jdbc:postgresql://localhost:5432/alfresco
Alfresco Repository (repo server)	http://localhost:8080/alfresco
Alfresco Share (repo server front end)	http://localhost:8081/share
Alfresco SOLR (repo index server)	https://localhost:8445/solr
Elasticsearch (log server)	http://localhost:9200
Kibana (log server front end)	http://localhost/#/dashboard/file/logstash.json

## 3.2 Update project

```
(cd /opt/alfresco/docker-utils)
cp <path-to-alfresco-amp>/alfresco-*.amp /tmp
./alf_deploy.sh <project> -t /tmp
```

## 4 Development

A Git/Maven project containing Docker image build scripts and docker-utilities packaging is located at `git@git.redpill-linpro.com:alfresco-docker`. All members of the ECM team should have access to this repository.