Hyland

### Alfresco TTL #140

#### **HANDOUT**





## HYLAND COMMUNITY LIVE



## LINUX OPEN SOURCE SUMMIT EUROPE



#### **HYLAND & OPEN SOURCE**

- Linux Foundation member
- Open Source solutions
  - Alfresco and Nuxeo
  - Leader in ECM/CPS & DAM
  - More projects to come...
- Open Source user
  - To build products, services & solutions
  - Strong legal compliance









#### **HACKTOBER FEST**

- Alfresco will participate in 2022
- List of projects and repositories:

github.com/AlfrescoLabs/hacktoberfest-2022





#### **DEVCON 2023**

- Lots of work going on to make it happen
- Beginning of 2023
- Hyland's Alfresco & Nuxeo
- More details and Call For Paper to come asap in a blog article



#### RESOURCES FROM THE COMMUNITY



#### From the Hub

- Alfresco Community Admin Tools, by shazada
   https://hub.alfresco.com/t5/alfresco-content-services-blog/alfresco-community-admin-tools/ba-p/313742
- Using AWS OpenSearch with Alfresco Search Enterprise 3.1, by angelborroy
   https://hub.alfresco.com/t5/alfresco-content-services-blog/using-aws-opensearch-with-alfresco-search-enterprise-3-1/ba-p/313526
- Alfresco Login Issues & How To Solve Them, by angelborroy
   https://hub.alfresco.com/t5/alfresco-content-services-blog/alfresco-login-issues-amp-how-to-solve-them/ba-p/313602
- Removing latest transactions from Alfresco Search Services, by angelborroy
   https://hub.alfresco.com/t5/alfresco-content-services-blog/removing-latest-transactions-from-alfresco-search-services/ba-p/312909

#### Release

 Activiti SDK v1.0.4, by PJ Lucidi https://github.com/OpenPj/activiti-sdk/releases/tag/v1.0.4

### **TTL SPEAKERS WANTED!**



#### **Topics**

- Open source projects
- Showcase of your best work
- Tips and tricks on Alfresco products
- Discussions on best practices
- And more! Just pitch it to the team

- Technical talk only!
- About Alfresco & Nuxeo or associated technologies



#### **Benefits for Speakers**

- Visibility in the ecosystem
- Goodies
- And other advantages

## Empathetic approach to containerized deployments

MAKE YOUR PRODUCT AVAILABLE FOR **EVERYONE!** 

Developer Evangelist

Angel Borroy Antoine Thomas Community Manager

September 29, 2022

Hyland

THE LINUX FOUNDATION





#### **AGENDA**

Users, use cases & Docker solutions

**Docker Extension** 

**Docker Compose** 

Docker Compose Installer

Docker Compose SDK

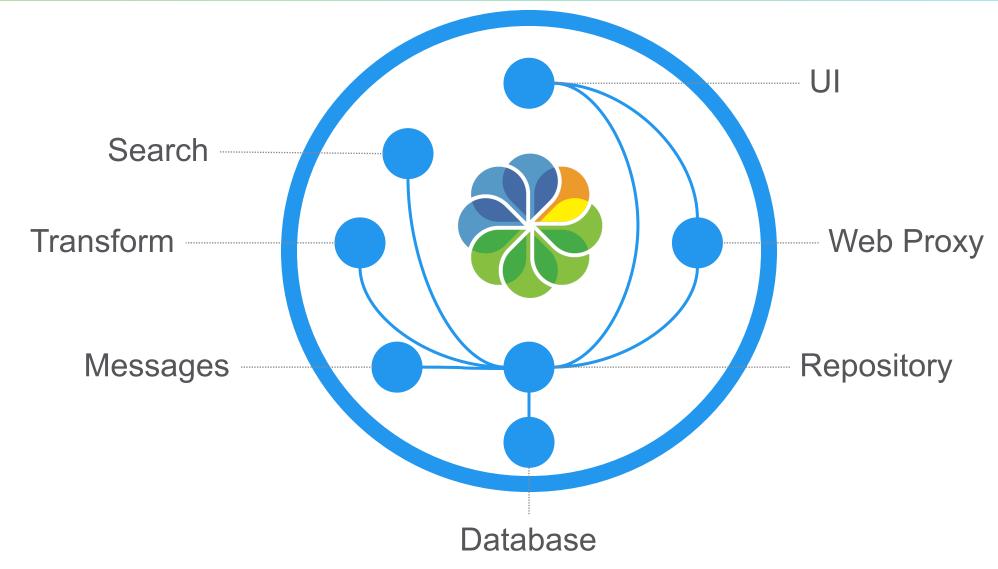
**Conclusion & Questions** 



USERS,
USE CASES
&
DOCKER
SOLUTIONS



#### **ALFRESCO CONTAINERS**





#### WHY WE NEED DIFFERENT SOLUTIONS?

#### **OK**, Alfresco is cloud native

-> Designed to be deployed in production with Docker or Kubernetes

But before deployment at scale, there are some steps:

#### **Evaluation**

- -> Non tech people need an easy way to test and evaluate
- -> Part of the decision process

#### **Adoption**

- -> Tech people need to try different configurations and prepare deployement in their information system
- -> Integrators need a development environment



#### **USE CASES & DOCKER SOLUTION**

No code / low code evaluation "I don't know what Docker is"

docker extension (desktop)

Production / DevOps "I use Docker everyday"

docker compose installer







Tech evaluation "I use Docker occasionally"

docker compose

Development / Integration "I use Docker for development"

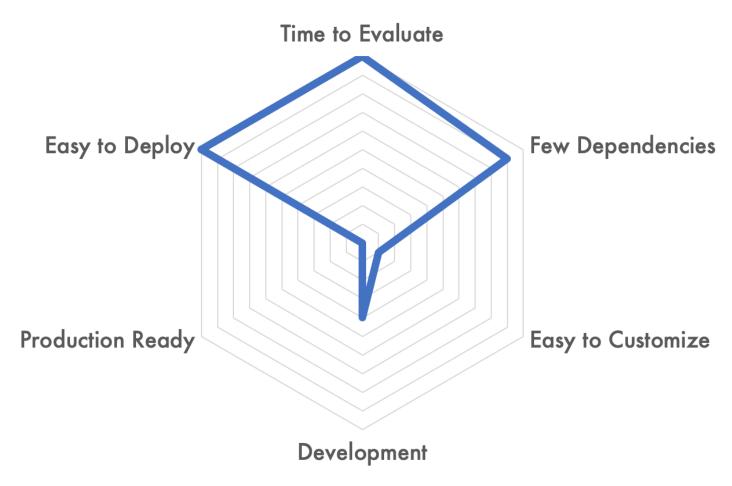
docker compose sdk



## DOCKER EXTENSION



#### **USE CASE**



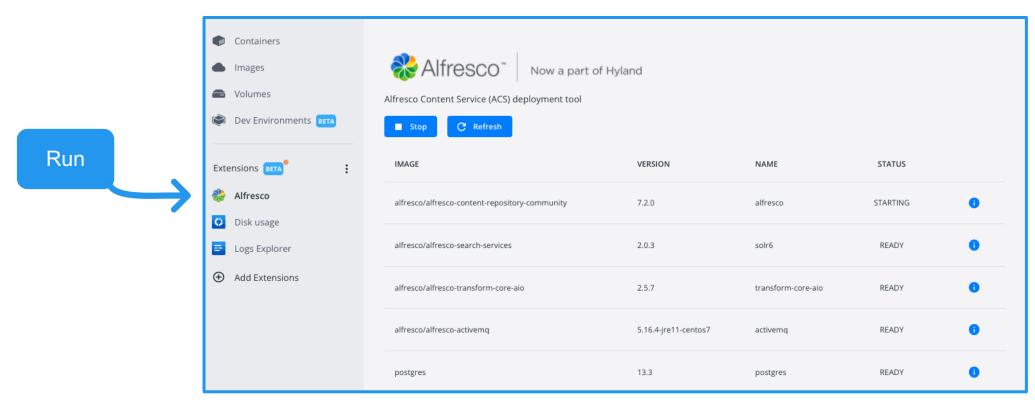
No code / low code evaluation "I don't know what Docker is"

docker extension (desktop)

- One single click to deploy out-ofthe-box Alfresco from Docker
   Desktop app
- No persistent storage
- No support for addon deployment
- Not recommended for dev / prod environments



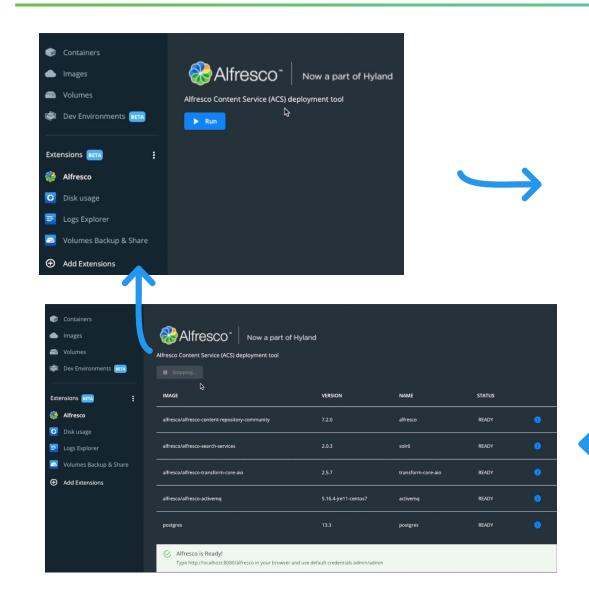
#### **USER EXPERIENCE**

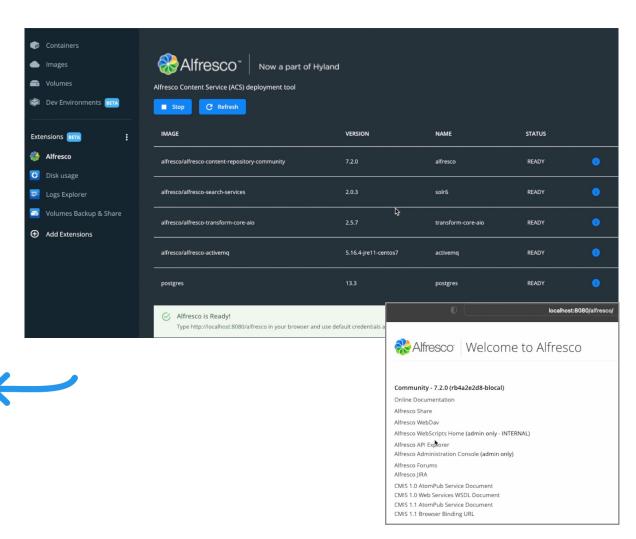


- Requirements
  - Docker Desktop
  - Not yet available in the Docker Extension Marketplace







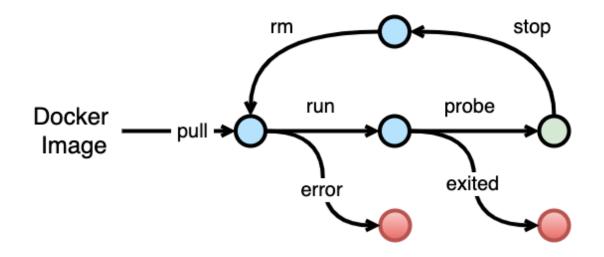


#### HOW WE DID IT

#### Alfresco Docker Extension - Source Code

### BETA Docker Extension SDK

- UI: ReactJS + MUI
- Docker Desktop Client: Docker + Navigation



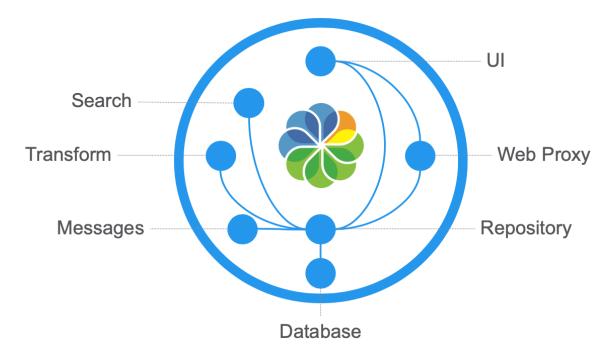








- Support for ARM64 architecture
  - The rise of Apple Silicon chips
- Additional containers
  - UI
  - Web Proxy
- Increase verbosity and feedback
  - Container transitions: pulling, running,...
  - Error details and how to fix them
- Ability to manage a persistent deployment (start-and-stop)







#### Docker Extensions Publication Guidelines (from Docker)

#### Test

- For crashes, bugs, and performance issues
- With potential users
  - Consider the needs of both new and existing users of your extension
- On various platforms (Mac, Windows\*, Linux)

#### Ensure

- You've ran Docker Extension validation checks
- The *UI styling* is in line with Docker Desktop guidelines
- The Extension support both light and dark mode
- Read Docker Extension Terms of Service

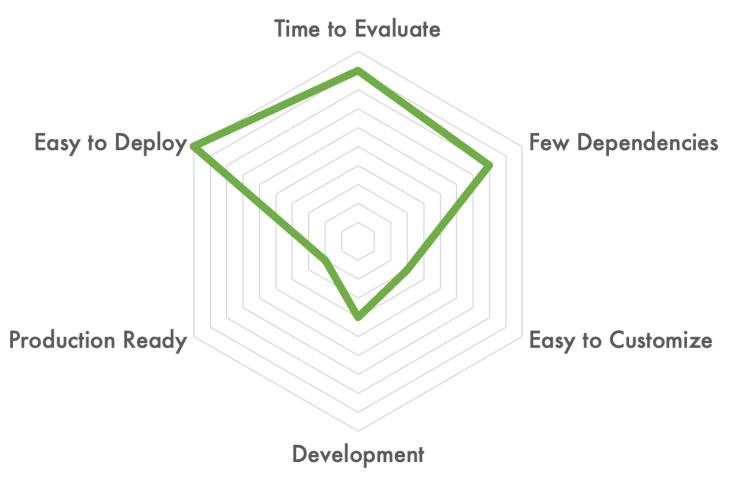




## DOCKER COMPOSE



#### **USE CASE**



Tech evaluation
"I use Docker occasionally"

docker compose

- One single command to deploy outof-the-box Alfresco from Docker
   CLI
- No persistent storage
- No support for addon deployment
- Not recommended for prod environments



#### Alfresco Community Downloading Page

#### 7.2 Community install

- For all ACS 7.2 Community install options refer to https://docs.alfresco.com/content-services/community/install/
- Containerized deployment using Docker. Follow the instructions for installing using Docker Compose, <a href="https://docs.alfresco.com/content-services/community/install/containers/docker-compose/">https://docs.alfresco.com/content-services/community/install/containers/docker-compose/</a>



\*For further Docker setup details please visit GitHub.

 Non-containerized deployment using Ansible. Follow the instructions for installing using Ansible, <a href="https://docs.alfresco.com/content-services/community/install/ansible/">https://docs.alfresco.com/content-services/community/install/ansible/</a>

#### Requirements

- Docker Desktop
- Docker Compose
- Git Client

#### **Install using Docker Compose**

Use this information to quickly start up Community Edition using Docker Compose.

**Note:** While Docker Compose is often used for production deployments, the Docker Compose file provided is recommended for development and test environments only. Customers are expected to adapt this file to their own requirements, if they intend to use Docker Compose to deploy a production environment.

To deploy Community Edition using Docker Compose, download and install Docker →, then follow the steps below. Make sure that you've reviewed the prerequisites ↓ before continuing.

1. Clone the project locally, and change directory to the project's docker-compose folder:

git clone https://github.com/Alfresco/acs-deployment.git
cd acs-deployment/docker-compose



Note: Make sure that exposed ports are open on your host computer. Check the docker-compose.yml file to determine the exposed ports - refer to the host:container port definitions. You'll see they include 5432, 8080, 8083 and others.

2. Deploy Community Edition, including the repository, Share, Postgres database, Search Services, etc.:

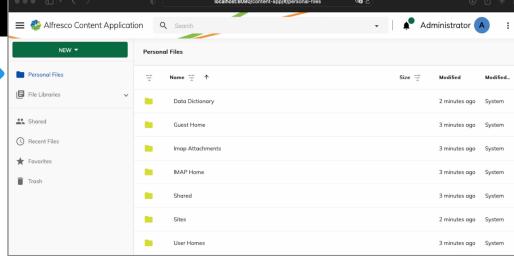
docker-compose of community-docker-compose.yml up





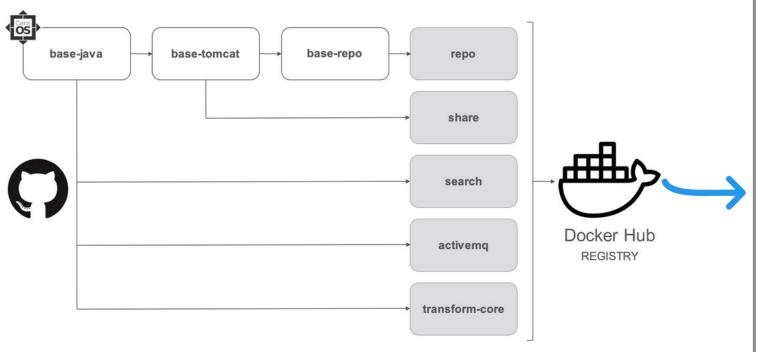
#### **DEMO**

```
oss-demo $ git clone git@github.com:Alfresco/acs-deployment.git
Cloning into 'acs-deployment'...
remote: Enumerating objects: 8302, done.
remote: Counting objects: 100% (801/801), done.
remote: Compressing objects: 100% (383/383), done.
remote: Total 8302 (delta 490), reused 672 (delta 394), pack-reused 7501
Receiving objects: 100% (8302/8302), 8.52 MiB | 8.17 MiB/s, done.
Resolving deltas: 100% (5225/5225), done.
oss-demo $ cd acs-deployment/docker-compose
docker-compose $ ls
6.2.N-docker-compose.yml
                            7.2.N-docker-compose.yml
                                                          docker-compose.yml
7.0.N-docker-compose.yml
                             README.md
7.1.N-docker-compose.yml
                             community-docker-compose.yml
docker-compose $ docker compose -f community-docker-compose.yml up
```



#### **HOW WE DID IT**

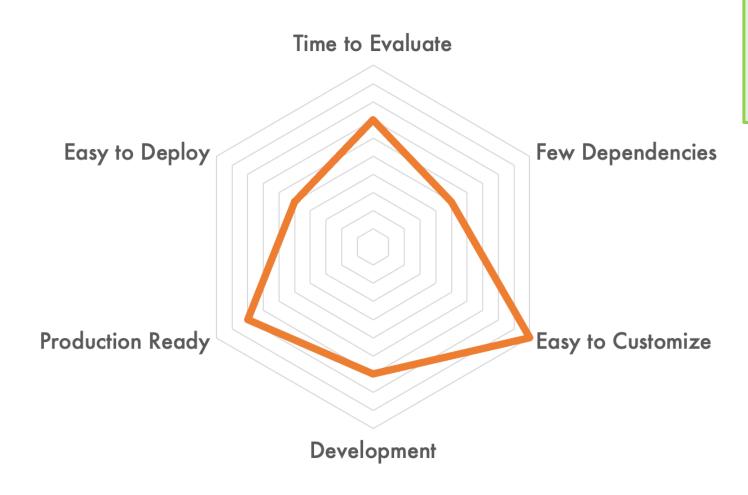
#### Alfresco Deployment - Source Code



| docker-compose.yml |  |
|--------------------|--|
| 0,5 GB             |  |
| 1,0 GB             |  |
| 1,5 GB             |  |
| 2,0 GB             |  |
| 2,0 GB             |  |
| 1,0 GB             |  |
| 0,2 GB             |  |
|                    |  |

## DOCKER COMPOSE INSTALLER





Production / DevOps "I use Docker everyday"

docker compose installer

- Tailored build of Docker Compose
- One single command to deploy customized Alfresco from Docker CLI
- Persistent storage
- Support for addon deployment
- Recommended for prod environments



#### **USER EXPERIENCE**

#### DOCKER COMPOSE ALFRESCO

Which ACS version do you want to use? How many GB RAM are available for Alfresco? Do you want to use HTTPs for Web Proxy? What is the name of your server? Choose the password for your admin user What HTTP port do you want to use? Do you want to use FTP (port 2121)? Do you want to use MariaDB instead of PostgreSQL? Are you using different languages? Select the method for Alfresco-SOLR communication Do you want to use credentials for Events service? Do you want to create an internal SMTP server? Do you want to create an internal LDAP server? Select the addons to be installed Are you using a Windows host to run Docker?

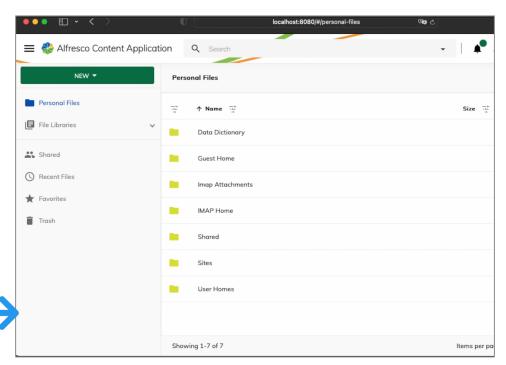
### 40960+ combinations

- Requirements
  - Docker Desktop
  - Docker Compose
  - NodeJS
  - Yeoman
    - alfresco-docker-installer



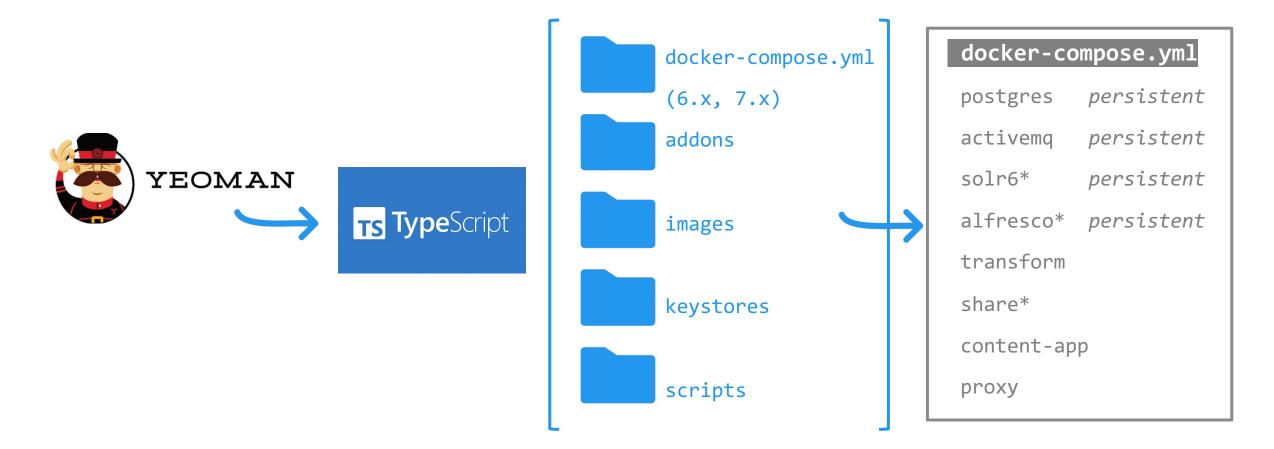
#### **DEMO**

```
What HTTP port do you want to use (all the services are using the same port)? 8080
 Do you want to use FTP (port 2121)? No
 Do you want to use MariaDB instead of PostgreSOL? No
 Are you using different languages (this is the most common scenario)? Yes
 Would you like to use Shared Secret or HTTPs for Alfresco-SOLR communication? secret
 Do you want to use credentials for Events service (ActiveMQ)? No
 Do you want to create an internal SMTP server? No
 Do you want to create an internal LDAP server? No
 Select the addons to be installed:
 Are you using a Windows host to run Docker? No
 Do you want to use a start script? No
 Do you want to get the script to create host volumes? No
  create .env
  create docker-compose.yml
  create alfresco/Dockerfile
  create alfresco/modules/amps/empty
  create alfresco/modules/jars/empty
  create share/Dockerfile
  create share/web-extension/share-confia-custom-dev.xml
  create share/modules/amps/empty
  create share/modules/jars/empty
  create search/Dockerfile
  create config/nginx.conf
  create config/nginx.htpasswd
No change to package.json was detected. No package manager install will be executed.
oss-demo $ docker compose up --build --force-recreate
```



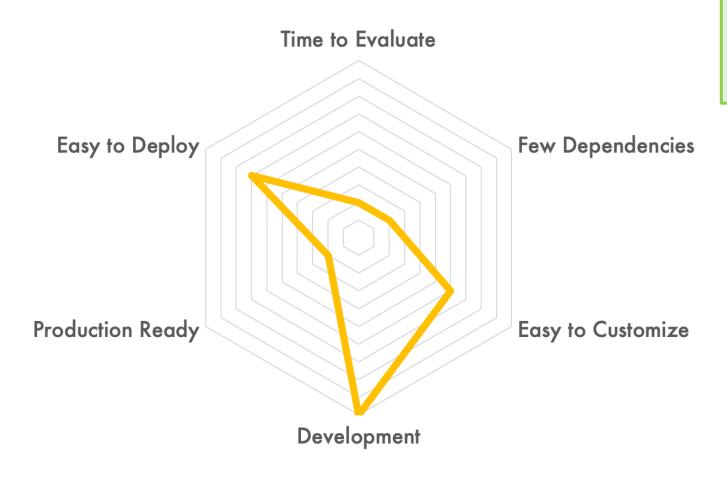
#### **HOW WE DID IT**

#### Alfresco Docker Installer - Source Code



## DOCKER COMPOSE SDK





Development / Integration "I use Docker for development" docker compose sdk

- One single command to deploy customized Alfresco from Docker CLI
- Support for development deployment
- Recommended for dev environments

#### **USER EXPERIENCE**

```
$ mvn archetype:generate -Dfilter=org.alfresco:
1: remote -> org.alfresco.maven.archetype:activiti-jar-archetype
2: remote -> org.alfresco.maven.archetype:alfresco-allinone-archetype
3: remote -> org.alfresco.maven.archetype:alfresco-amp-archetype
4: remote -> org.alfresco.maven.archetype:alfresco-platform-jar-archetype
5: remote -> org.alfresco.maven.archetype:alfresco-share-jar-archetype
6: remote -> org.alfresco.maven.archetype:share-amp-archetype
$ ./run.sh start
start() {
   docker volume create test-acs-volume
   docker volume create test-db-volume
   docker volume create test-ass-volume
   docker-compose -f "$COMPOSE FILE PATH" up --build -d
```

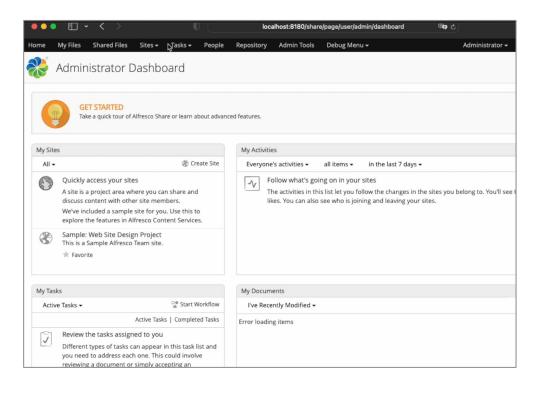
### **Dev-and-Deploy**

- Requirements
  - Docker Desktop
  - Docker Compose
  - Maven
  - Java



- \$ mvn archetype:generate -Dfilter=org.alfresco:
- 1: remote -> org.alfresco.maven.archetype:activiti-jar-archetype
- 2: remote -> org.alfresco.maven.archetype:alfresco-allinone-archetype
- 3: remote -> org.alfresco.maven.archetype:alfresco-amp-archetype
- 4: remote -> org.alfresco.maven.archetype:alfresco-platform-jar-archetype
- 5: remote -> org.alfresco.maven.archetype:alfresco-share-jar-archetype
- 6: remote -> org.alfresco.maven.archetype:share-amp-archetype
- \$ ./run.sh build\_start

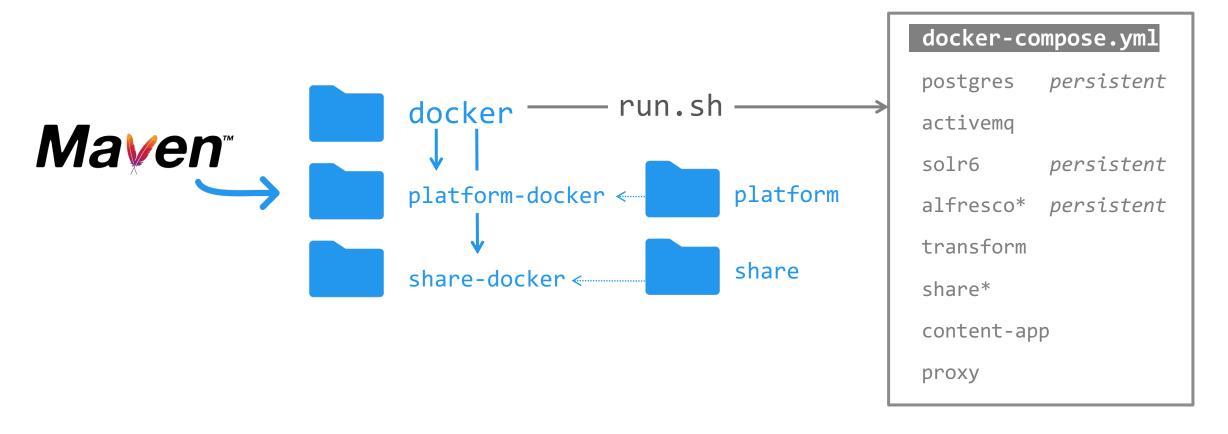






#### **HOW WE DID IT**

#### Alfresco SDK – Source Code

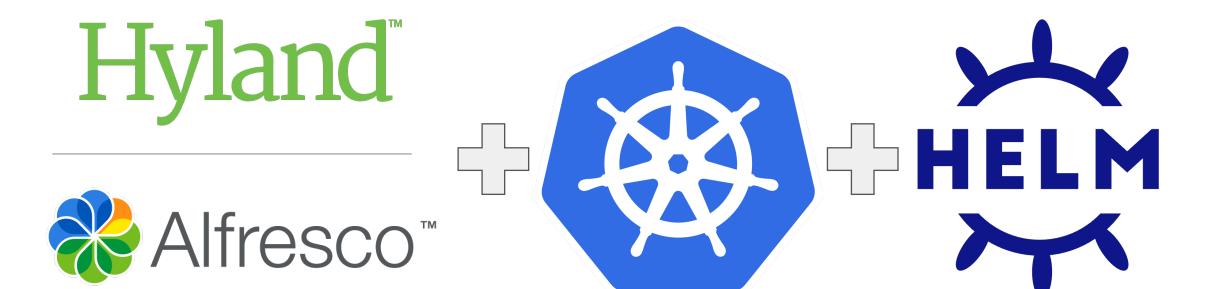




### **KUBERNETES**



#### FROM THOUSANDS TO MILLIONS!



Alfresco has a cloud native architecture and is ready for K8S & HELM to be deployed at scale



### **RESOURCES**





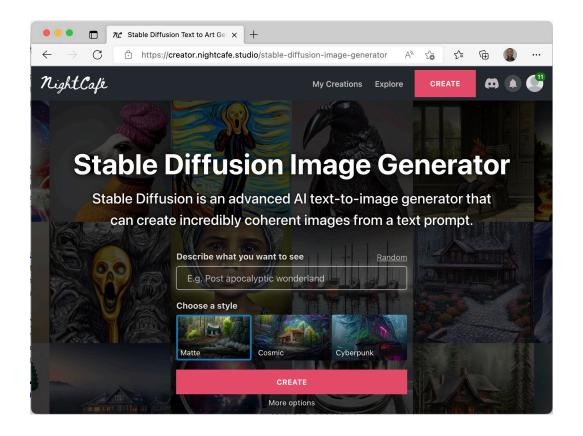
#### REFERENCES

- Alfresco Docker Extension Source Code
   <a href="https://github.com/AlfrescoLabs/alfresco-docker-extension">https://github.com/AlfrescoLabs/alfresco-docker-extension</a>
- Docker Extensions Publication Guidelines (from Docker)
   <a href="https://www.docker.com/products/extensions/submissions">https://www.docker.com/products/extensions/submissions</a>
- Alfresco Community Downloading Page <u>https://www.alfresco.com/thank-you/thank-you-downloading-alfresco-community-edition</u>
- Alfresco Deployment Source Code <u>https://github.com/Alfresco/acs-deployment</u>
- Alfresco Docker Installer Source Code
   <a href="https://github.com/Alfresco/alfresco-docker-installer">https://github.com/Alfresco/alfresco-docker-installer</a>
- Alfresco SDK Source Code <u>https://github.com/Alfresco/alfresco-sdk</u>



#### **CREDITS**

 Images in title slides dreamed by Stable Diffusion https://github.com/CompVis/stable-diffusion





#### FOLLOW US & COME AT HUB.ALFRESCO.COM

#### **Antoine Thomas**

Community Manager
Open source solutions



#### **Angel Borroy**

Developer Evangelist



@ttoine

linkedin.com/in/ttoine

blog.ttoine.net

@AngelBorroy

linkedin.com/in/angelborroy

angelborroy.wordpress.com

# Hyland