Simplifying Foswiki and Solr with Docker

(unpublished)

Running Foswiki and Solr with cutting edge features has never been easier!

📅 01 May 2019 | 👤 Timothy Legge | 📁 [Development](), [Support]() | 🏷 [Solr](), [docker](), [docker-compose](), [installation](), [packaging]()

With Docker (and docker-compose) preparing a fully functional production quality Foswiki and Solr environment is simple and easy.

Starting Foswiki and Solr

Check out `timlegge/docker-foswiki`

```
git clone https://github.com/timlegge/docker-foswiki.git
```

Start Foswiki and Solr

```
cd [where the project has been cloned]
docker-compose up
```

Resetting the Admin Password

```
cd [where the project has been cloned]
docker exec -it $(pwd)_foswiki_1 /bin/bash
cd /var/www/foswiki/
tools/configure -save -set {Password}='MyPassword'
```

Testing Foswiki and Solr

```
cd [where the project has been cloned]
docker exec -it $(pwd)_foswiki_1 /bin/bash
cd /var/www/foswiki/tools/
./solrindex topic=Main.WebHome
cd /var/www/foswiki/bin
./rest /SolrPlugin/search | grep Congrat
```

The `solrindex` command will complain about the lack of a .htpasswd file but should show Indexing topic Main.WebHome. The `rest` command should search using Solr and grep for congratulations that shows on the Main.WebHome

Enable Solr Search on Foswiki

1. Connect to http://localhost:8765/
2. Login as the admin user (username: admin, password: [as set above])
3. Access http://localhost:8765/bin/configure
4. Access Extensions
5. Configure AutoTemplatePlugin
6. Modify ViewTemplate Rules
    1. Change 'WebSearch' => 'WebSearchView' to 'WebSearch' => 'SolrSearchView'
7. Save Configuration Changes
8. Connect to http://localhost:8765/
9. Click Search
    1. Type "Congr" (you should see Main begin to appear)
    2. Press Enter (you should see the Solr results for congr search term)

Solr Admin interface access

To reduce vulnerabilities, the Solr application listens only on the docker fosswiki network that is shared with the Foswiki container. Foswiki can connect to the Solr container but unless you absolutely need to access the admin interface you should not make Solr available on the server.

See Overriding Defaults or add a ports section to the docker-compose.yaml file under the solr section forwarding 8983:8983.

Starting Foswiki with a non-default port

By default, docker-compose.yaml settings change allow Foswiki to listen on port 8765/tcp. This allows you to run Foswiki and Solr on a server that is already listenning on port 80. With Docker one often uses a nginx container to proxy to multiple docker containers on one server. Listening on port 8765 be default makes this simpler from the start.

```
cd [where the project has been cloned]
FOSWIKI_PORT=80 docker-compose up
```

Next Steps

At this point you have a working Foswiki and Solr installation. The following would be normal next steps:

1. Configure Foswiki as you would like
2. Convert data
3. Setup or configure an nginx proxy 80/443 to port 8765

Credits

1. `timlegge/docker-foswiki` is based on the original work of `michael34435/docker-foswiki`
2. The Alpine Linux project was very helpful in approving the required perl-modules that were submitted (full native packages to support Foswiki)
3. Solr and their docker container simplified Solr setup
4. Michel Mallejac contributed the docker-compose.yaml to bring it all together

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