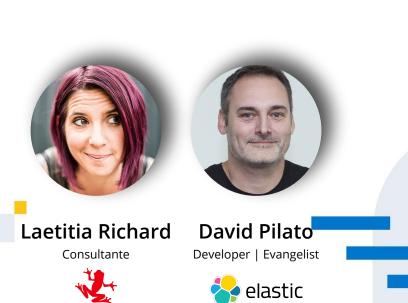


### FSCrawler: you know, for files!

25/03/2021





Search or jump to	Pull requests Issues Marketplace Explore		4 + •
dadoonet / fscrawler		⊙ Unwatch - 76	6 🛉 Unstar 812 양 Fork 20
<> Code ① Issues 102 000 Pul	I requests 8 () Actions [1] Projects 2 () Securit	y 🖂 Insights	诊 Settings
😚 master 👻 😚 15 branches 🛇 19	tags Go to file Add file -	⊻ Code -	About
mergify Merge pull request #997 fro	m dadoonet/dependabot/mave 🔐 🗸 4669ef2 20 days ago	• <b>1,217</b> commits	Elasticsearch File System Crawler (FS Crawler)
github	Update the issue templates	4 months ago	
.mvn	Move to .mvn folder all needed settings to build/test FSCrawler	4 years ago	java elasticsearch crawler tika
beans beans	Add support for YAML configuration	2 years ago	
📄 cli	Remove support for Elasticsearch v5	9 months ago	🛱 Readme
contrib/docker-compose-example	Update Dockerfile-fscrawler	29 days ago	ৰ্শ্ৰু Apache-2.0 License
core	Fix SSH crawling from Windows machine	2 months ago	
crawler	Add documentation about Windows drives SSH indexing	6 months ago	Releases 19
distribution	Remove support for Elasticsearch v5	9 months ago	<ul> <li>FSCrawler 2.6 (Latest) on 9 Jan 2019</li> <li>+ 18 releases</li> </ul>
docs	Updated documentation for instructions on how to use the contri	2 months ago	
elasticsearch-client	Add `path_prefix` option	6 months ago	
framework	Remove support for Elasticsearch v5	9 months ago	Packages
integration-tests	Fix flaky tests	2 months ago	No packages published Publish your first package
rest	Add more information to the _simulate API	9 months ago	
settings	Document `auto` option for `pdf_strategy`	3 months ago	Used by 7



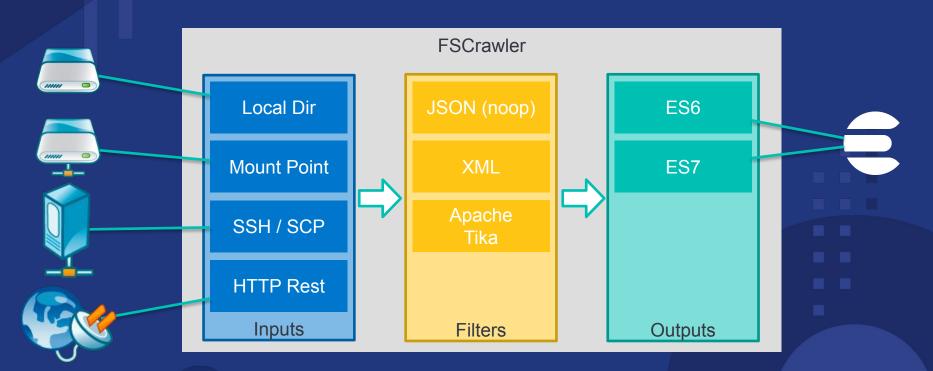
## Disclaimer

This project is a community project. **It is not officially supported by Elastic.** Support is only provided by FSCrawler community on discuss and stackoverflow.

<u>http://discuss.elastic.co/</u> <u>https://stackoverflow.com/questions/tagged/fscrawler</u>



Architecture





Key Features

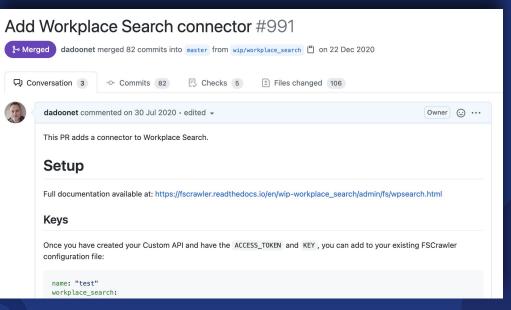
- Much more formats than ingest attachment plugin
- OCR (Tesseract)
- Much more metadata than ingest attachment plugin (See https://fscrawler.readthedocs.io/en/latest/admin/fs/elasticsearch.html#generated-fields)
- Language detection

## **Documentation**

- <u>https://fscrawler.readthedocs.io/</u>
- <u>https://fscrawler.readthedocs.io/en/latest/user/tutorial.html</u>
- <u>https://fscrawler.readthedocs.io/en/latest/user/formats.html</u>
- <u>https://fscrawler.readthedocs.io/en/latest/admin/fs/index.html</u>

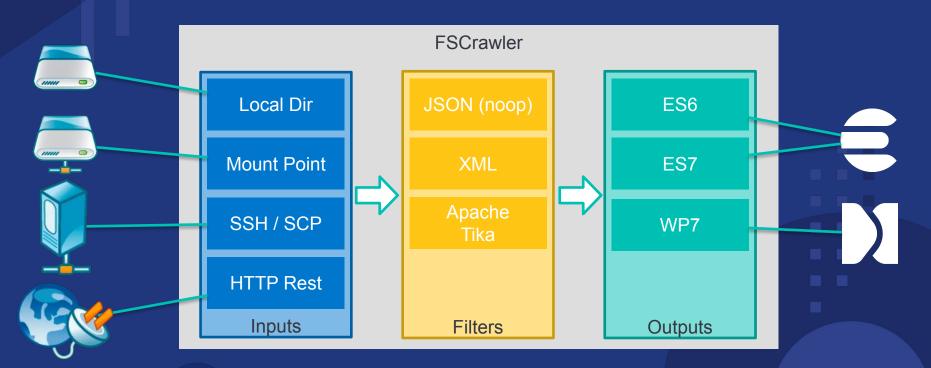


### Workplace Search integration





Architecture





OCK integration

Starting with a REST gateway

Supported formats Tips and tricks

ADMINISTRATION GUIDE

Status files

CLI options

JVM Settings

Configuring an external logger configuration file

Job file specification

The most simple crawler

Local FS settings

SSH settings

Elasticsearch settings

Workplace Search settings

Keys

Server

Running on Cloud

Bulk settings

Documents Repository URL

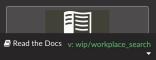
### **REST** service

#### **DEVELOPER GUIDE**

Building the project

Writing documentation

### Release the project



### **Workplace Search settings**

New in version 2.7.

FSCrawler can now send documents to Workplace Search.

### Note

Although this won't be needed in the future, it is still mandatory to have access to the elasticsearch instance running behind Workplace Search. In this section of the documentation, we will only cover the specifics for workplace search. Please refer to Elasticsearch settings chapter.

### Hint

To easily start locally with Workplace Search, follow the steps:

• Check-out the source code on GitHub:

git clone git@github.com:dadoonet/fscrawler.git
cd fscrawler
cd contrib/docker-compose-workplacesearch
docker-compose up

This will start Elasticsearch, Kibana (not used) and Workplace Search.

- Wait for it to start and open http://127.0.0.1:3002/ws.
- Enter enterprise\_search as the login and changeme as the password.
- · Click on "Add sources" button and choose Custom API.
- Name it fscrawler and click on "Create Custom API Source" button.
- Copy the "Access Token" value. We will mention it as ACCESS\_TOKEN for the rest of this documentation.
- Copy the "Key" value. We will mention it as **KEY** for the rest of this documentation.

Back to Sources

Create a Custom
API Source



Custom API Source







### **FS Settings**

"fs": { "url": " /PATH/data", "update rate": "1m", "includes": ["\*.doc", "\*.xls", "\*.pdf", "\*.ppt", "\*.pptx", "\*.docx", "\*.xlsx", "\*.odt", "\*.ods", "\*.odp", "\*.rtf"], "excludes": ["\*~\*"], "indexed chars": "10%", "filename as id": false, "add filesize": true, "remove deleted": true, "index content": true, "lang detect": true },

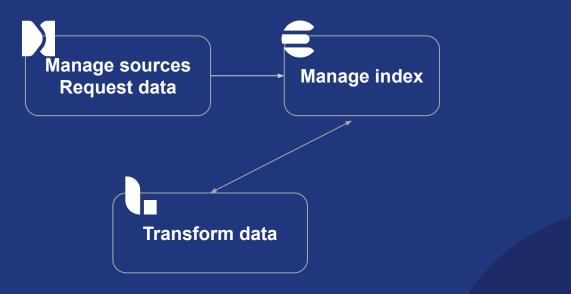
# ES Settings "elasticsearch": { "nodes": [ { "cloud\_id": "CLOUD\_ID" } ], "username": "USER", "password": "PASSWORD" },

### **WPS Settings**

"workplace\_search": {
 "access\_token":
"TOKEN",
 "key": "KEY",
 "server":
"https://ID.ent-search.euwest-3.aws.elastic-cloud.c
om"



## Need to enrich your data?





### input { elasticsearch { cloud id => [" CLOUD ID"] cloud auth => "USER: PASSWORD" index => ".ent-search-engine-6059f24fff7 092dce460a49b" query => '{ "query": { "query string": { "query": "\*" } } } ' size => 100 scroll => "5m" docinfo => true

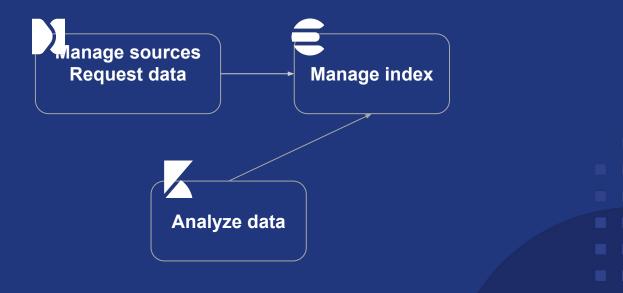
Input Settings

### Filter Settings filter { mutate { asub => ["body\$string", "[\n]", " "] qsub => ["body\$string", "[\t]", " "] qsub => ["body\$string", "[\r]", " "] strip => ["body\$string"] if "/PATH/Data/" in [path\$string] { grok { match => ["path\$string", "/PATH/Data/%{DATA:customer} /%{DATA}"]

### **Ouput Settings**

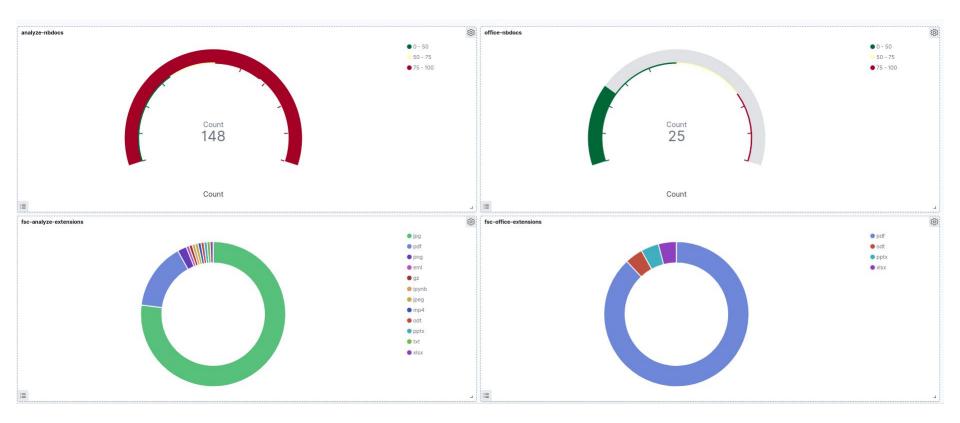
```
output {
    elasticsearch {
        cloud_id => ["
CLOUD_ID"]
        cloud_auth =>
"USER:PASSWORD"
        action => "update"
        doc_as_upsert => true
        document_id =>
"%{[@metadata][_id]}"
        #index => "fsc-office"
        index =>
"%{[@metadata][_index]}"
      }
}
```

## Need to analyze your data?





### Observe and analyze your data





## **Beware of the settings**

- FSCrawler with Workplace Search output is not in watch mode (you can use systemd)
- To transform your Workplace Search index you will have to **set dynamic mapping to true** first (default is strict)
- If you have other standard Workplace Search connectors, you will have to transform your data in another index because the full sync refresh the content source from scratch



### Needs to be done



- New local file crawling implementation (WatchService): <u>#399</u>
- Docker image: <u>#820</u>
- Store jobs, configurations, status in Elasticsearch: #717
- Support for plugins (inputs, filters and outputs):
  - refactor with pf4j framework: <u>#1114</u>
  - rsync input: <u>#377</u>
  - Dropbox input: <u>#264</u>
  - S3 input: <u>#263</u>
  - Beats output: <u>#682</u>
- Switch to ECS format for the most common fields: <u>#677</u>
- Extract ACL informations: #<u>464</u>



## Thanks!

PR are warmly welcomed!

https://github.com/dadoonet/fscrawler



## **Bonus slides**

Architecture

