GrimoireLab viz DIY Session

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/outline

Kibana management interface

GrimoireLab standard panels, panels at GitHub

Standard visualizations in Kibana

Building our own viz

Building our own panels
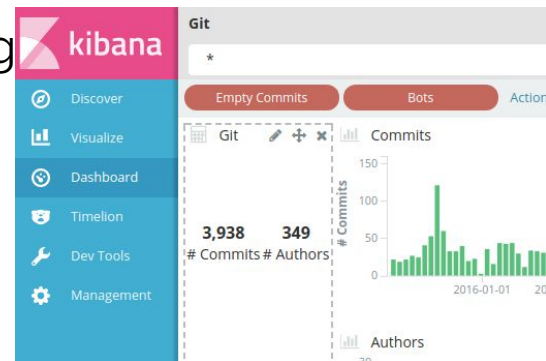
Contributing to the Panels repository

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Kibana Management Interface

Same data with interface for editing

Edit and create viz

Tweak searches

Build your own panels

/kibana

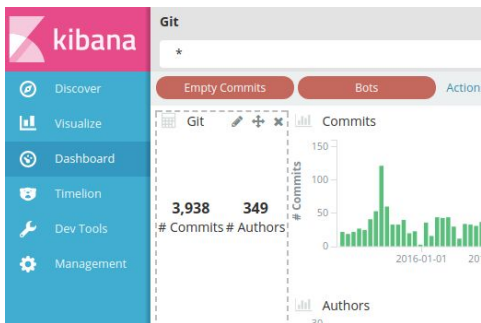Discover => List indexes, create searches

Visualize => List and create new ones

Dashboard => List and create new ones

Timelion => Useful for timeseries

Dev Tools => Query ElasticSearch

Management => Manage your indexes, formats, settings

GrimoireLab Standard Panels

/panels

/panels

github.com/grimoirelab/panels
Migrating to CHAOSS!

Direct relationship between indexes and panels

A panel needs a set of fields

An index is defined by a mapping

The Panels repository uses a CSV schema to be tech-agnostic

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github.com/grimoirelab/panels
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/panels-schema

grimoirelab / **panels**

| | Unwatch ▾ 9 | ★ Star 7 | Fork 12 |

| ‹› Code | ⓘ Issues 5 | Pull requests 0 | Projects 0 | Wiki | Insights | Settings |

Branch: master ▾   **panels** / **schema** /   Create new file   Upload files   Find file   History

dicortazar Add Crates CSV schema definition   Latest commit 563a2bf Dec 18, 2017

..

README.md	Add CSV files as the data model schema	Oct 3, 2017
affiliations.csv	Fix header row	Nov 14, 2017
askbot.csv	Fix header row	Nov 14, 2017
bugzilla.csv	Fix header row	Nov 14, 2017
confluence.csv	Fix header row	Nov 14, 2017
crates.csv	Add Crates CSV schema definition	Dec 18, 2017
discourse.csv	Fix header row	Nov 14, 2017
dockerhub.csv	Fix header row	Nov 14, 2017
functest.csv	Fix header row	Nov 14, 2017
gerrit.csv	Fix header row	Nov 14, 2017

github.com/grimoirelab/panels
Migrating to CHAOSS!

24 Existing schemas

54 Existing standard panels

A panel may have information coming from 1 or more schemas

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github.com/grimoirelab/panels
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How to contribute?

Create your own indexes and define that schema

Create a new panel based on existing indexes/schemas

Share that with the community!

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Indexes

Indexes are the SQL databases

This is a big matrix of information with:

  A JSON document per row

  With multiple columns (fields) with a type (string, number, etc)

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Standard visualizations

/visualizations

Area	Heat Map	Horizontal Bar	Line	Pie	Vertical Bar

Data

Data Table	~~Dot plot~~	Gauge	Goal	**42** Metric

Maps

Coordinate Map	Region Map

Time Series

Timelion	Visual Builder

Other

~~Dropdown Picker~~	Markdown	~~Network~~	Tag Cloud
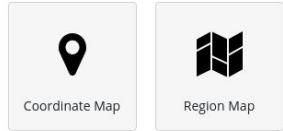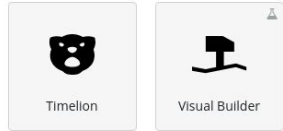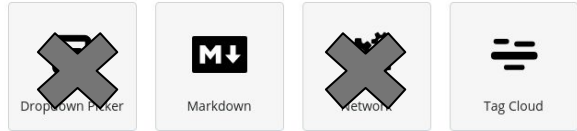
Two main areas in the widgets

Buckets

Metrics

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Kibiter/GrimoireLab Visualizations

/visualizations
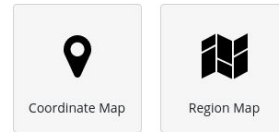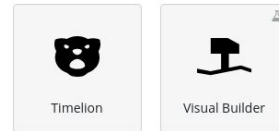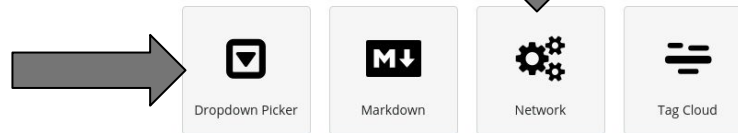
Timelion

Timelion is an app for Kibana

Widgets in Kibana have a limitation:

   They only accept info from one index

Timelion is focused on timeseries

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Specification of index and timefield

You can use by default parameters

logstash-*

@timestamp

Or change those (Mng->Adv.Sett.->timelion)

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Everything starts with .es(*)

Functions start with "."

Specify our index:

```
.es(index=git_opnfv, timefield=author_date)
```

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Add a new Timelion chart with the Add option

Multiple charts allow to have the hover-over cursor mirrored in all of them

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Data Sources:

ElasticSearch: .es()

Graphite: .graphite()

Quandl: .quandl()

World Bank: .worldbank_indicators() and .worldbank()

https://github.com/elastic/timelion/blob/master/FUNCTIONS.md

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Functions:

```
.abs(), .cusum(), .derivative(), .log(),
.max(), .min(), .movingaverage(),
.subtract(), .sum(), .trend(),
```

etc...

https://github.com/elastic/timelion/blob/master/FUNCTIONS.md

Example:

Population of Spain and France:

```
.worldbank_indicators('ES').worldbank_indicators('FR')
```

Soft. dev. Analytics example:

Evolution of commits:

  .es(timefield='grimoire_creation_date', index=git)

Cumulative:

  .es(timefield='grimoire_creation_date', index=git).cusum()

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Soft. dev. Analytics example:

Evolution of commits and unique authors

.es(timefield='grimoire_creation_date', index=git, metric='cardinality:author_name').label('unique authors') .es(timefield='grimoire_creation_date', index=git).label('commits')

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Soft. dev. Analytics example:

Looking for trend changes

 Moving averages:

```
.es(timefield='grimoire_creation_date',
index=git)
.es(timefield='grimoire_creation_date',
index=git).movingaverage(window=3,
position=center)
.es(timefield='grimoire_creation_date',
index=git).movingaverage(window=15)
```

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