

# Alambic Open-Data Management for your project



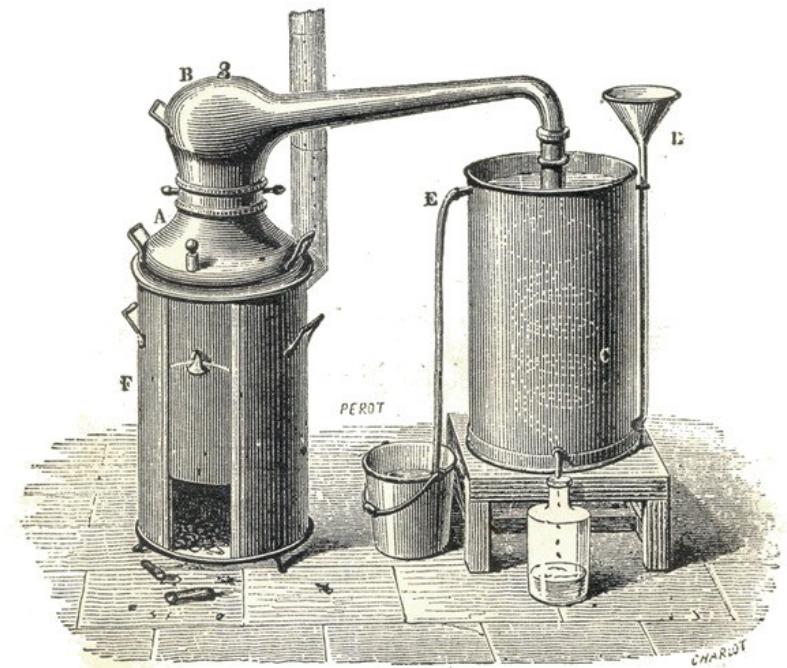
**Boris Baldassari**



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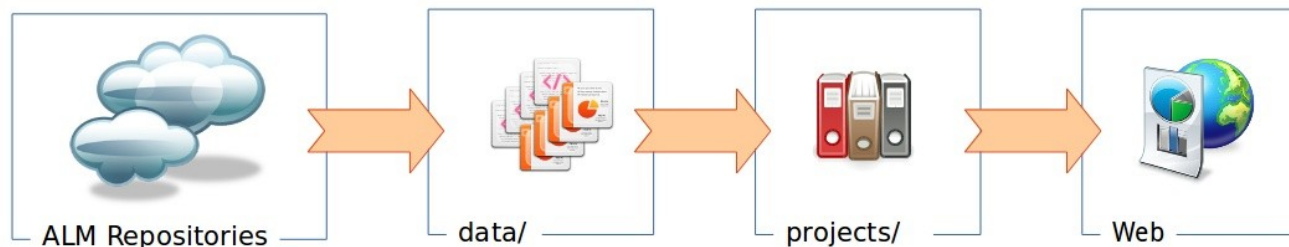
<http://castalia.solutions>



# Alambic – Introduction

Alambic is a **framework** and **service** for the management of **software engineering data** that:

- **Retrieves, curates, and organises** data from heterogeneous sources: Git, Bugzilla, Mailing lists, Forums, Hudson, PMD, StackOverflow..
- Runs **checks, actions, reports, and visualisations.**
- **Publishes** all information in a unified interface.



**Plugins** retrieve information from any type of repository:

- SCM: Git, SVN, CVS...
- ITS: Bugzilla, Forges...
- MLS: mails, forums...
- SonarQube
- Stack Overflow
- Etc.

The **quality model** is built from the metrics up to the quality attributes.

**Plugins** add custom information, analyses and visualisations.

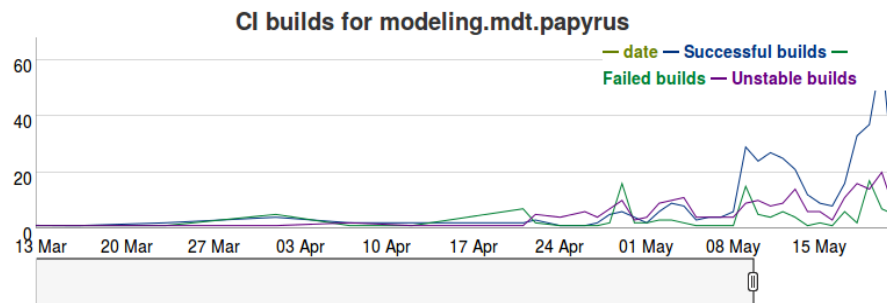
The **dashboard** provides:

- Metrics, quality attributes, and the quality model.
- Reports from plugins (e.g. pmd, stack overflow)
- Downloads for all the data
- Exportable pictures and analyses.

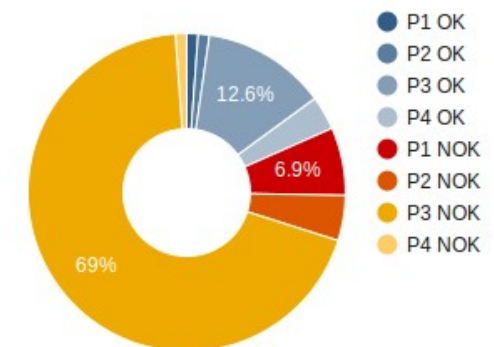
# Alambic outputs

Alambic provides:

- A **dashboard** to browse all information online.
- **Downloads** for metrics, attributes, recommendations (JSON, CSV).
- **Exportable figures**: PNG/SVG, HTML snippets, interactive plots.
- **Visualisations**: quality model, data, history, specific data sources analysis.
- **Recommendations** to help teams improve their practices.
- Extended **PDF reports** with in-depth analysis.



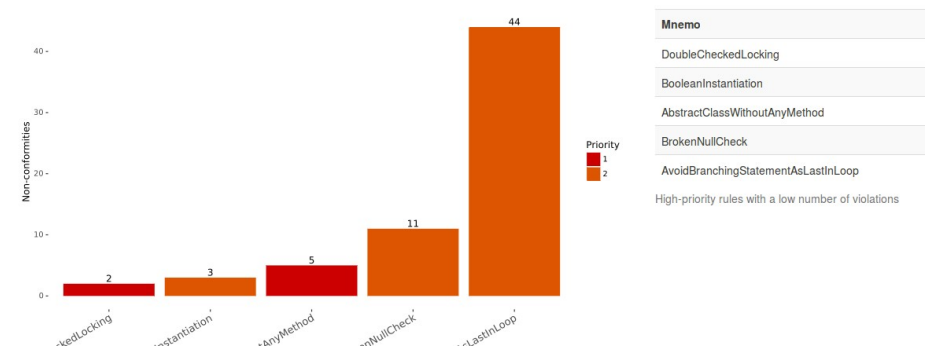
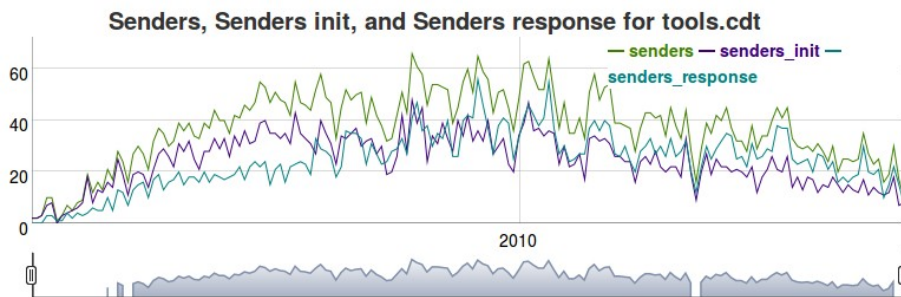
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# Alambic Quality Model



**Metric: Files committed (SCM\_FILES)** [More info](#)

**Active:** True

**Value:** 61846

**Data source:** eclipse\_scm

**Computed indicator:** 5

**Description:**

Total number of files touched by commits in source code management repositories dated during the last three months.

Source code management repositories are those considered as such in the project documentation. Commits in all branches are considered. A file is 'touched' by a commit if its content or its path are modified by the commit. Date used for each commit is 'author date' (when there is a difference between author date and committer date). Time range is measured as three calendar months period starting the day before the data retrieval (example: if retrieval is on Feb 3rd, period is from Jan 3rd to Feb 2nd, both included).

# Alambic plugin: StackOverflow

Alambic dashboard for Eclipse - v2.0 (beta)

technology.egit Plugin stack\_overflow

Summary QM Attributes Questions Metrics Manual data Plugins Download Errors

## StackOverflow Questions

This section shows information about SO posts concerning the tag `egit` during the last 5 years (i.e. from 2011-05-21T22:01:38 ).

### Quick Summary


- There is a total of 1013 questions and 2438 posts related to `egit`.
- Posts analysed span from 2011-05-21 to 2016-05-19.
- Last activity registered was on 2016-05-19 15:31.
- 712 of them ( 70% ) have an accepted answered.
- 175 actually have answers but none of them is accepted.
- 126 have no answer at all.
- There is an average of 1.41 answers to questions.

The wordcloud on the right details frequent words used in the question titles. The size and colour of the words depend on their number of appearances in questions. It shows what are the concerns and issues of people when dealing with the project.

### Recent questions waiting for an answer

The following recent questions (less than 1 month old) have been asked more than 2 days ago and still have no answer. Would you like to check them?

| Question   | Created on          | Score | Views |
|--|---------------------|-------|-------|
| <a href="#">Eclipse cdt Egit commit run configuration</a>  | 2016-05-05 10:12:57 | 0     | 10    |
| <a href="#">Export deployable plug-ins and fragments for projects stored in Git repository from Eclipse Kepler</a> | 2016-05-09 20:40:53 | 0     | 25    |
| <a href="#">Eclipse egit cannot not detecting changed files or add new file</a>                                    | 2016-05-12 16:39:01 | 0     | 14    |
| <a href="#">Eclipse Git - Making changes at the same time</a>  | 2016-05-14 13:33:27 | 1     | 21    |
| <a href="#">Commit and Push keeps making new branch (Eclipse)</a>  | 2016-05-19 01:51:15 | 0     | 16    |



# Alambic 3.0

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Alambic 3.0 adds many features:

- Architecture / Use Cases
  - More **data-centric**, positioned as a central data management platform.
  - Input **data** can be of **any type**.
  - Address **new use cases**: DevOps, system engineering.
  - Address **new forges**: GitHub, Apache..
- Plugins
  - New types of plugins: **post** and **global** triggers for reports
  - **Wizards** to easily create new projects: Eclipse PMI, GitHub, Apache

# Conclusion & Perspective

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Alambic project:

- Home: <http://alambic.castalia.camp>
- Source, issues, documentation: <http://bitbucket.org/BorisBaldassari/alambic>

Check the live instances:

- Polarsys dashboard: <http://dashboard.polarsys.org>
- Eclipse forge dashboard: <http://eclipse.castalia.camp>

Get in touch with me!

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