

MrHolmes: Beyond Classical Continuous Integration

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Abstract.

1 Introduction

Exercising a continuous process of quality control has recently become a popular trend in many software engineering teams, both in open-source and in industry.

2 Continuous Integration

Continuous integration. The process related to a continuous quality control and monitoring is commonly referred as *continuous integration*.

Limitations.

- closed history model: new metrics cannot be easily added
- global metric application: the history model is the same for all the projects

3 MrHolmes

3.1 MrHolmes in a nutshell

Mr. Holmes is a test server created by the University of Chile.

Its main function is to test different projects built with smalltalk (Pharo, Seaside, among others).

Also, It shows information about tested project, like number of lines, classes or another measure, and others that are specific for the project.

3.2 Adding new metrics

If to want to add a new project, you have to put the project name, but the project must have the following characteristics.

- To be a squeaksource project.
- To have a configuration package.

3.3 Adding new rendering

Each project in MrHolmes contents a list of result for each day. That result is represented by a sign and it meaning the project state.

The signs are:

Icon glossary of project results

- The result was successful, and does not have any error or warning test.
- The result has warning tests, but does not have any error test.
- The result has error tests.
- The project execution has failed, because a error has occurred during the loading of project configuration.

Each result shows the following datas:

- Successful tests.
- Warning tests.
- Error tests.
- Benchmarks (additional information and it depends of the project).
- Error loading (It will show the error description if a error happen during the project load).

3.4 Metamodel

4 Applications

4.1 Performance monitoring

4.2 ...

5 Implementation

Seaside front-end

Cron

Managing errors

6 Related Work

Hudson

Jenkins

7 Conclusion