



Integração contínua em PHP

Automating PHP
Continuous
Integration with
Jenkins

Gilmar Pupo
[@gpupo](https://twitter.com/gpupo)

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Sobre @gpupo

- Desenvolvedor e consultor em TI
- Doctrine ORM, Symfony, Perl, Bash, Linux, jQuery e o que mais funcionar
- Membro e co-fundador do **#maisagil**
- Empreendedor no **@hotellinux**

www.gilmar.eti.br

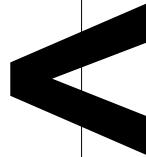
www.gpupo.com



PHPUnit
PHP_CodeSniffer
phpcpd
Jenkins

Ferramentas

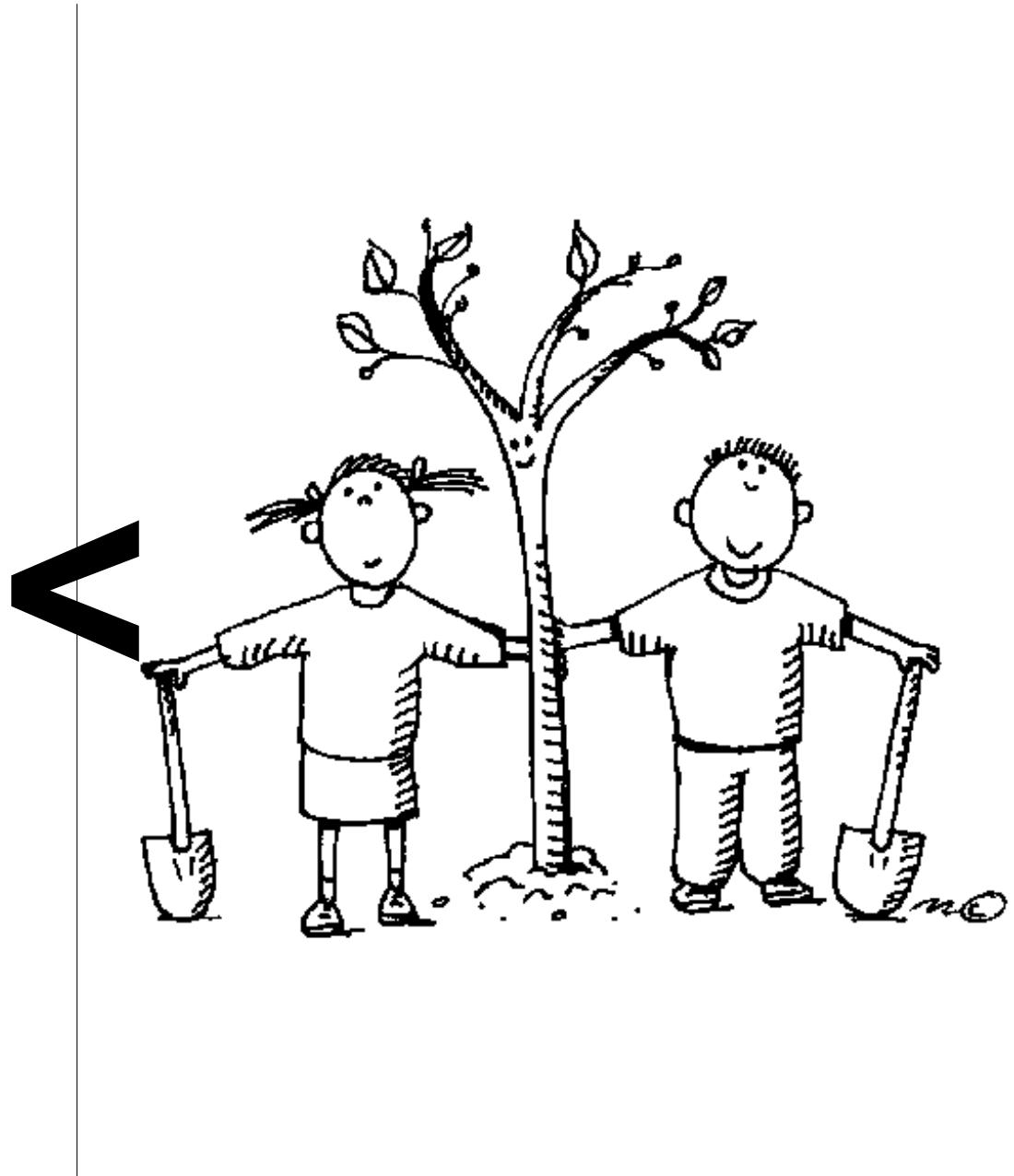
Ant
Git
Capistrano
Testes Unitários
Testes Funcionais
Documentação



PHPUnit
PHP_CodeSniffer
phpcpd
Jenkins

Ferramentas

Ant
Git
Testes Unitários
Testes Funcionais
Documentação



Para que serve

- Reduzir retrabalho
- Reduzir custo de entrega
- Código de manutenção barata
- Identificar erros mais cedo



O que faz

- Verifica padrões
- Gera relatórios e alertas
- Gera documentação



O que faz

- Verifica duplicidade de código
- Recomenda o encapsulamento
- Identifica a % de código coberto
- Gera pacotes



Compatibilidade

- Incompatível com
Cowboy coding OS



Continuous Integration

Continuous Integration is a software development practice where members of a team integrate their work frequently, usually each person integrates at least daily - leading to multiple integrations per day. Each integration is verified by an automated build (including test) to detect integration errors as quickly as possible. Many teams find that this approach leads to significantly reduced integration problems and allows a team to develop cohesive software more rapidly. This article is a quick overview of Continuous Integration summarizing the technique and its current usage.

01 May 2006



Martin Fowler

Translations: Portuguese Chinese
Korean

ThoughtWorks, my employer, offers consulting and support around Continuous Integration. The open source CruiseControl, the first continuous integration server, was originally created at ThoughtWorks. Recently ThoughtWorks Studios, our products group, has released Go - a new server for continuous integration and delivery. It supports parallel, staged builds with multiple projects, a snazzy looking dashboard, and support for automated deployments. It's a commercial tool, but is free to use for small setups.

Contents

- Building a Feature with Continuous Integration
- Practices of Continuous Integration
 - Maintain a Single Source Repository.
 - Automate the Build
 - Make Your Build Self-Testing
 - Everyone Commits To the Mainline Every Day
 - Every Commit Should Build the Mainline on an Integration Machine
 - Keep the Build Fast
 - Test in a Clone of the Production Environment
 - Make it Easy for Anyone to Get the Latest Executable
 - Everyone can see what's happening
 - Automate Deployment
- Benefits of Continuous Integration
- Introducing Continuous Integration
- Final Thoughts
- Further Reading

<http://martinfowler.com/articles/continuousIntegration.html>

“...em minha cópia de trabalho e faço o que preciso para completar minha tarefa. Isso irá consistir em alterar o código de produção e também adicionar ou alterar os testes automatizados.

*Integração Contínua assume um alto nível de testes que são automatizados no software: uma facilidade que eu chamo de **self-testing code**...”*



“...Uma vez que eu terminei, eu faço uma build automatizada na minha máquina de desenvolvimento.

Assim, o código fonte em minha cópia de trabalho é pego, compilado e transformado em um executável - e então é executado os testes automáticos.

Somente se todas as builds e testes não tiverem erros que tudo será considerado bom...”



“....Com uma boa build, eu posso então pensar em colocar minhas alterações no repositório...”

...Sendo assim, primeiro eu atualizo minha cópia de trabalho com as mudanças feitas pelos outros e crio uma nova build. Se as mudanças deles chocarem com as minhas mudanças, será exibido erros tanto na compilação quanto nos testes. Neste caso é minha a responsabilidade de corrigir estes erros e repetir o processo até que minha cópia local esteja sincronizada com a versão principal.....”



“...Uma vez que tenho as alterações na minha própria build eu posso finalmente fazer o commit na versão principal, que atualiza o repositório.

Entretanto meu commit não termina meu trabalho. Nós fazemos uma build novamente, mas agora em uma maquina de integração baseada na versão principal do código. Somente com o sucesso desta build poderemos dizer que as minhas alterações foram feitas. ”



“...Sempre existe uma chance de eu ter esquecido alguma coisa na minha máquina e o repositório não ser atualizado corretamente.

Somente quando minha build de alterações for lançada com sucesso na máquina de integração é que o meu trabalho terminou...”



“...Se um choque ocorrer entre as versões de dois desenvolvedores, isso geralmente é pego quando o segundo desenvolvedor atualizar sua cópia local com as builds feitas pelos outros.

Caso não, a build de integração deve falhar.

De qualquer modo o erro é detectado rapidamente.

Nesse momento a tarefa mais importante é consertar os problemas, e fazer sua build voltar a funcionar corretamente....”



“...A história anterior é uma apresentação da Integração Contínua e de como ela funciona diariamente. Colocar isso tudo pra funcionar sem problemas envolve obviamente mais coisas do que foi dito....”

Adaptação do artigo escrito por Martin Fowler

<http://martinfowler.com/articles/continuousIntegration.html>



*“...Em um ambiente de Integração Contínua você nunca deve ter uma build de integração com falhas por muito tempo. Um bom time deve ter **muitas builds corretas** por dia.*

Más builds podem ocorrer de tempos em tempos, mas devem ser consertadas rapidamente...”



Sem C.I.

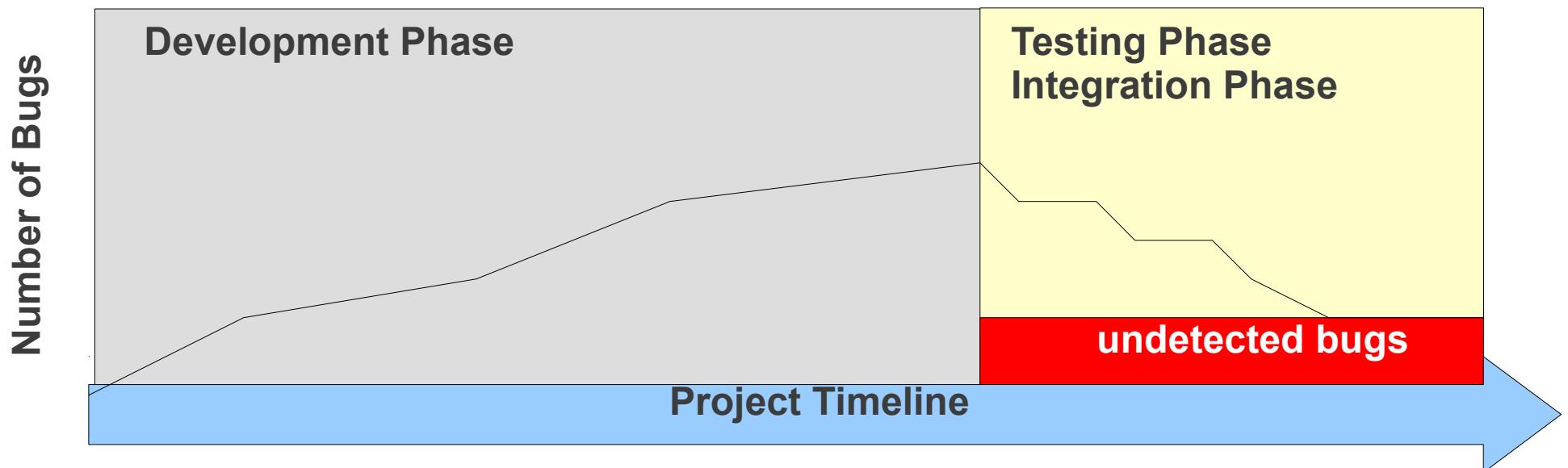


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primeiros passos

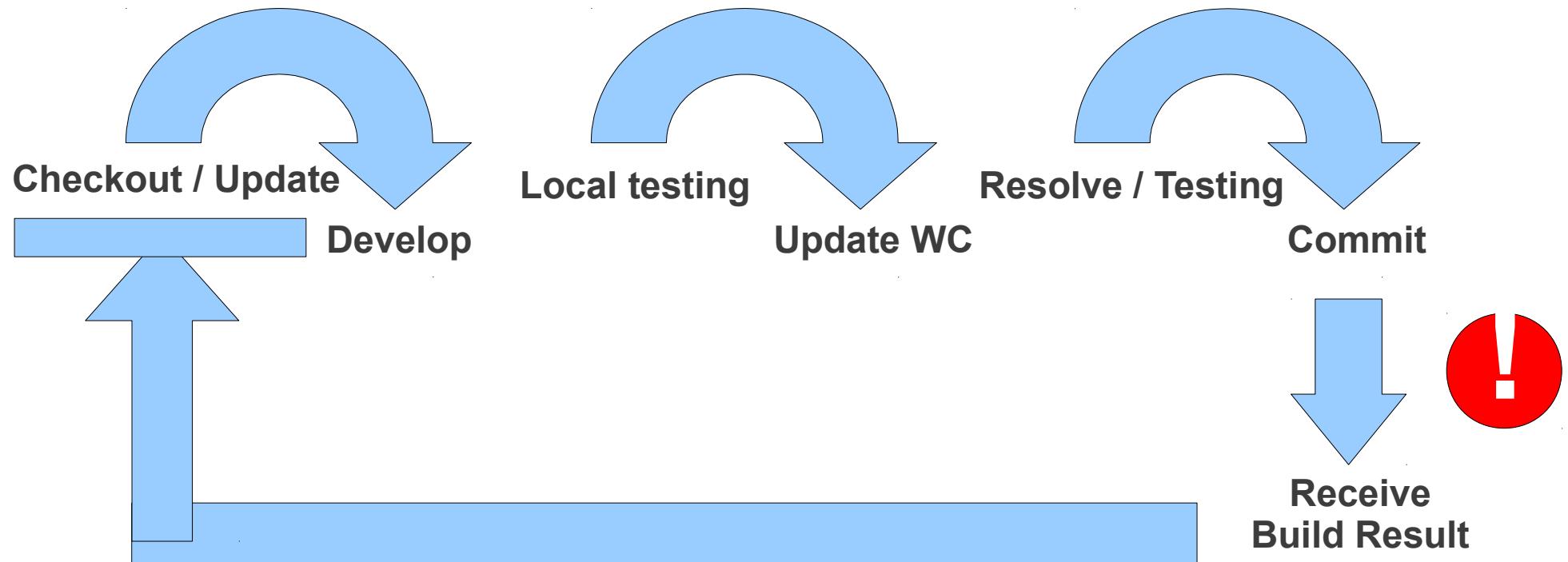


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Workflow com C.I. Server

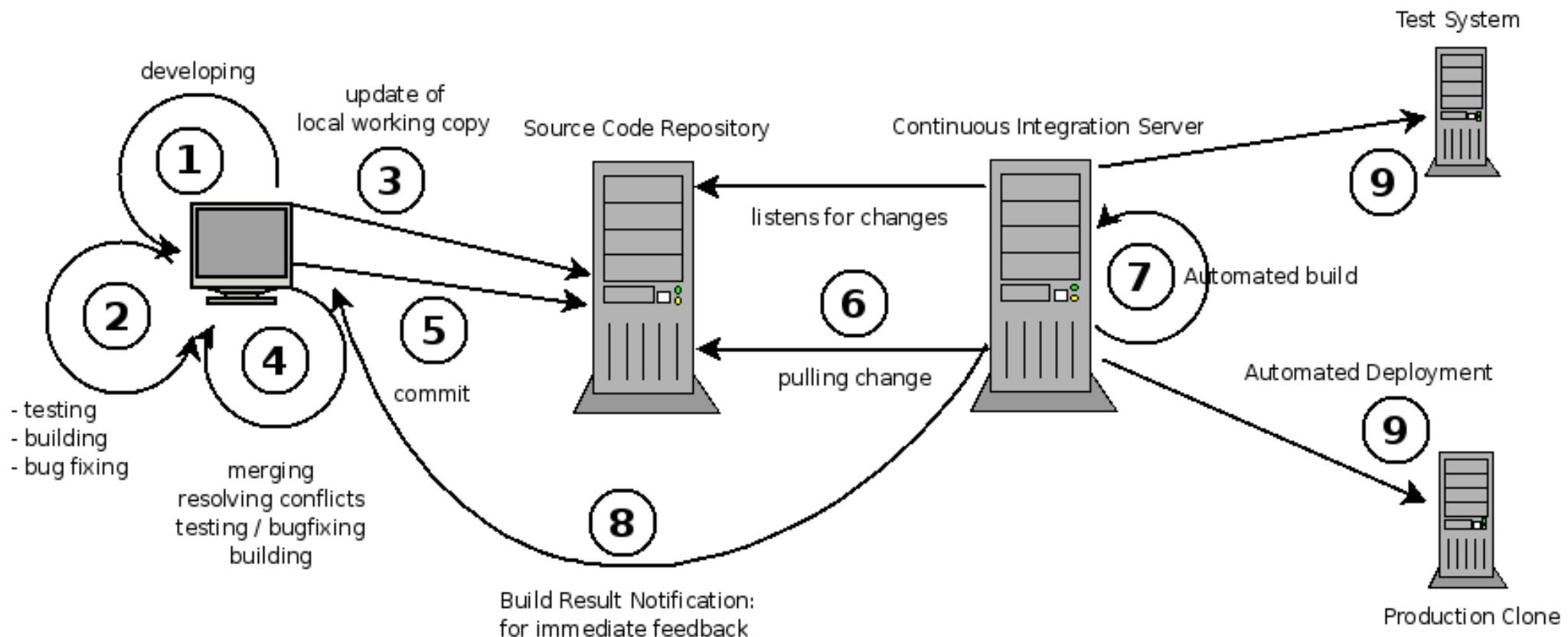


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O que faz

- Mantém Logs
- Reforça as políticas
- Informa status aos desenvolvedores
- Mantém rastreabilidade



Workflow com C.I. Server

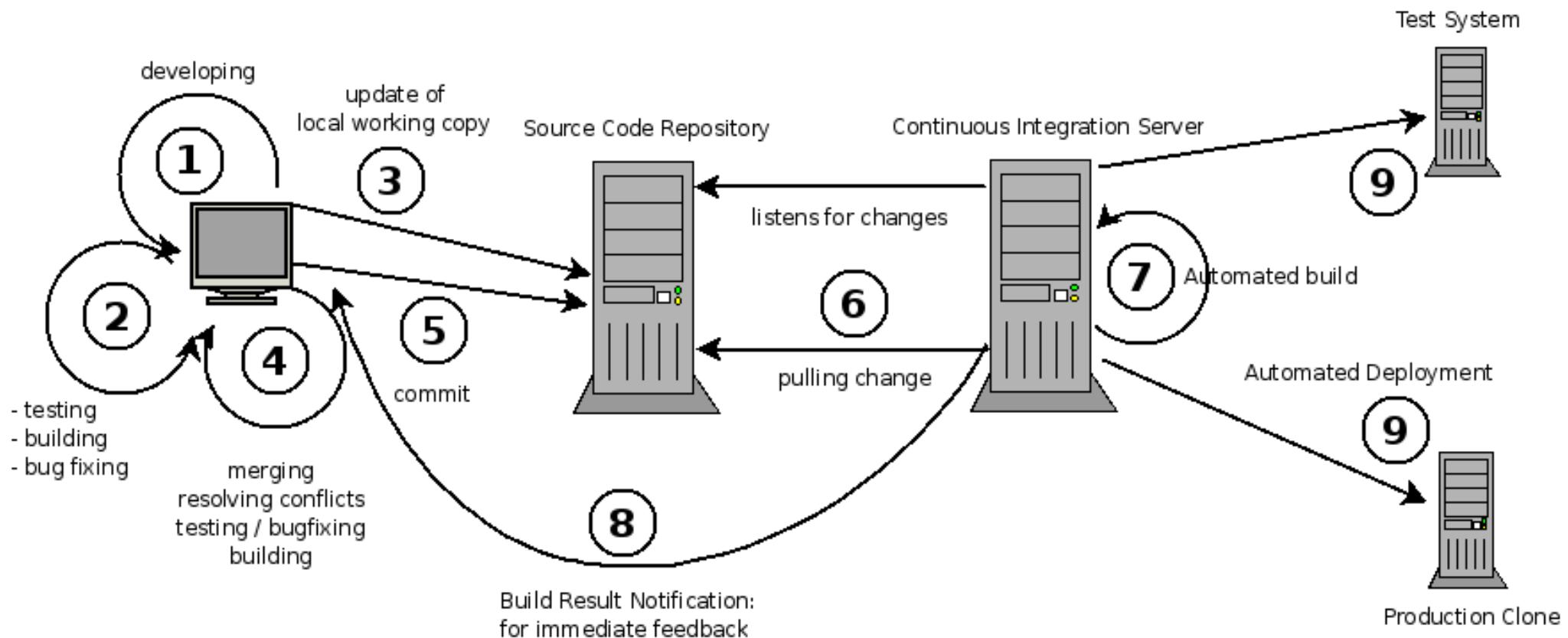


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**Padrão é
igual a
Default?**

**Padrão é
igual a
Default?**

Coding Style

PHP Code Demarcation

PHP code must always be delimited by the full-form, standard PHP tags:

```
1. <?php  
2.  
3. ?>
```

Short tags are never allowed. For files containing only PHP code, the closing tag must always be omitted (See [General standards](#)).

Strings

String Literals

When a string is literal (contains no variable substitutions), the apostrophe or "single quote" should always be used to demarcate the string:

```
1. $a = 'Example String';
```

String Literals Containing Apostrophes

When a literal string itself contains apostrophes, it is permitted to demarcate the string with quotation marks or "double quotes". This is especially useful for `SQL` statements:

```
1. $sql = "SELECT `id`, `name` from `people` "  
2.      . "WHERE `name`='Fred' OR `name`='Susan'" ;
```

This syntax is preferred over escaping apostrophes as it is much easier to read.

- Zend Programmer's Reference Guide
 - Coding Style
 - <http://goo.gl/z9BWj>



Coding Style

The screenshot shows the PEAR Documentation website. The navigation bar includes links for Main, Support, Documentation (which is highlighted), Packages, Package Proposals, About PEAR, Manual (which is also highlighted), and FAQ. The main content area is titled "Control Structures" and contains PHP code examples for control structures like if, elseif, else, and switch.

```
<?php
if ((condition1) || (condition2)) {
    action1;
} elseif ((condition3) && (condition4)) {
    action2;
} else {
    defaultaction;
}
?>
```

Coding Standards

Table of Contents

- [Coding Standards](#)
- [PEAR2 Coding Standards](#)
- [PEAR2 Policies](#)
- [Recommendations](#)

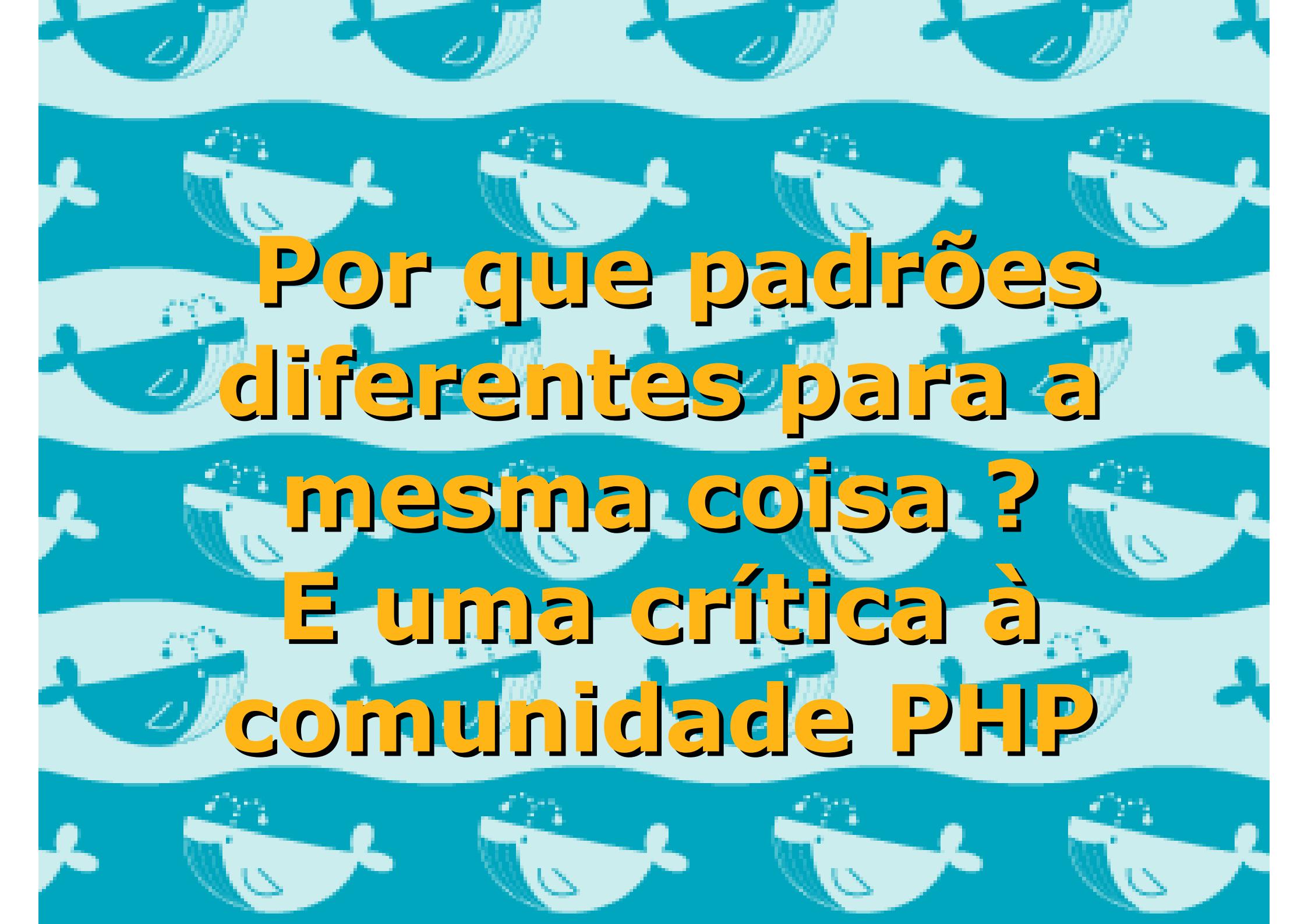
Function Definitions

Function declarations follow the "K&R style":

```
<?php
function fooFunction($arg1, $arg2 = '')
{
    if (condition) {
        statement;
    }
    return $val;
}
```

- PEAR\\Manual
 - Coding Style
 - <http://goo.gl/JYKLu>





**Por que padrões
diferentes para a
mesma coisa ?
E uma crítica à
comunidade PHP**

PHP CodeSniffer

- PHP CodeSniffer é um analizador de código PHP que escaneia o seu código e mostra erros e alertas baseado em um conjunto de padrões de código.



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- PHP CodeSniffer é um analizador de código PHP que escaneia o seu código e mostra erros e alertas baseado em um conjunto de padrões de código.

www.delicious.com/gpupo/codesniffer



PHP CodeSniffer

- PHP Code Sniffer (PHPCS) is a package for syntax checking, available from PEAR. It can check code against defined rules covering anything from whitespace through doc comments to variable naming conventions and beyond



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- PHP Code Sniffer (PHPCS) is a package for syntax checking, available from PEAR. It can check code against defined rules covering anything from whitespace through doc comments to variable naming conventions and beyond



gpupo@gpupo-desktop:~/Laboratorio/PHP - 14:44:19

\$ php myfile.php

The last tweet of @gpupo is xit!

```
gpupo@gpupo-desktop:~/Laboratorio/PHP - 14:44:19
```

```
$ php myfile.php
```

```
The last tweet of @gpupo is xit!
```

```
gpupo@gpupo-desktop:~/Laboratorio/PHP - 14:44:25
```

```
$ cat myfile.php
```

```
<?php
```

```
$cool = FALSE;
```

```
$var = 'The last tweet of @gpupo' ;
```

```
if(!$cool)
```

```
{
```

```
echo $var . ' is xit!';
```

```
}
```

```
gpupo@gpupo-desktop:~/Laboratorio/PHP - 14:44:19
```

```
$ php myfile.php
```

```
The last tweet of @gpupo is xit!
```

```
gpupo@gpupo-desktop:~/Laboratorio/PHP - 14:44:25
```

```
$ cat myfile.php
```

```
<?php
```

```
$cool = FALSE;  
$var = 'The last tweet of @gpupo';  
  
if(!$cool)  
{  
echo $var . ' is xit!';  
}
```

```
gpupo@gpupo-desktop:~/Laboratorio/PHP - 14:44:48
```

```
$ phpcs myfile.php
```

```
FILE: /home/gpupo/Laboratorio/PHP/myfile.php
```

```
-----  
FOUND 5 ERROR(S) AFFECTING 4 LINE(S)
```



```
2 | ERROR | Missing file doc comment  
3 | ERROR | TRUE, FALSE and NULL must be lowercase; expected "false" but found  
      |       | "FALSE"  
6 | ERROR | Expected "if (...) {\n"; found "if(...)\n{\n"  
6 | ERROR | There must be a single space between the closing parenthesis and  
      |       | the opening brace of a multi-line IF statement; found newline  
8 | ERROR | Line indented incorrectly; expected at least 4 spaces, found 0
```

```
Time: 0 seconds, Memory: 5.25Mb
```

Usage: phpcs [-nwlsapvi] [-d key[=value]]
[--report=<report>] [--report-file=<reportfile>] [--report-<report>=<reportfile>] ...
[--report-width=<reportWidth>] [--generator=<generator>] [--tab-width=<tabWidth>]
[--severity=<severity>] [--error-severity=<severity>] [--warning-severity=<severity>]
[--config-set key value] [--config-delete key] [--config-show]
[--standard=<standard>] [--sniffs=<sniffs>] [--encoding=<encoding>]
[--extensions=<extensions>] [--ignore=<patterns>] <file> ...

-n Do not print warnings (shortcut for --warning-severity=0)
-w Print both warnings and errors (on by default)
-l Local directory only, no recursion
-s Show sniff codes in all reports
-a Run interactively
-p Show progress of the run
-v[v][v] Print verbose output
-i Show a list of installed coding standards
-d Set the [key] php.ini value to [value] or [true] if value is omitted
--help Print this help message
--version Print version information
<file> One or more files and/or directories to check
<extensions> A comma separated list of file extensions to check
 (only valid if checking a directory)
<patterns> A comma separated list of patterns to ignore files and directories
<encoding> The encoding of the files being checked (default is iso-8859-1)
<sniffs> A comma separated list of sniff codes to limit the check to
 (all sniffs must be part of the specified standard)
<severity> The minimum severity required to display an error or warning
<standard> The name or path of the coding standard to use
<tabWidth> The number of spaces each tab represents
<generator> The name of a doc generator to use
 (forces doc generation instead of checking)
<report> Print either the "full", "xml", "checkstyle", "csv", "emacs"
 "source", "summary", "svnblame" or "gitblame" report
 (the "full" report is printed by default)
<reportfile> Write the report to the specified file path
<reportWidth> How many columns wide screen reports should be printed

```
gpupo@gpupo-desktop:~/Laboratorio/PHP - 15:40:54
```

```
$ phpcs -i
```

```
The installed coding standards are MySource, PEAR, PHPCS, Squiz and Zend
```

```
gpupo@gpupo-desktop:~/Laboratorio/PHP - 15:41:05
```

```
$ phpcs --report=summary ./
```

PHP CODE SNIFFER REPORT SUMMARY

FILE	ERRORS	WARNINGS
/home/gpupo/Laboratorio/PHP/myfile.php	5	0

```
A TOTAL OF 5 ERROR(S) AND 0 WARNING(S) WERE FOUND IN 1 FILE(S)
```

```
Time: 0 seconds, Memory: 5.25Mb
```

```
gpupo@gpupo-desktop:~/Laboratorio/Jenkins/object-freezer - 11:11:53
$ zf create project . object-freezer
Creating project at /home/gpupo/Laboratorio/Jenkins/object-freezer
Note: This command created a web project, for more information setting up your VHOST, please see
docs/README
```

```
gpupo@gpupo-desktop:~/Laboratorio/Jenkins/object-freezer - 11:12:22
$ ls
application build build.xml docs library phpunit.xml.dist public README src tests
```

gpupo@gpupo-desktop:~/Laboratorio/Jenkins/object-freezer - 11:12:30

\$ phpcs --report=summary ./

PHP CODE SNIFFER REPORT SUMMARY

FILE	ERRORS	WARNINGS
...aboratorio/Jenkins/object-freezer/application/Bootstrap.php	2	0
.../object-freezer/application/controllers/ErrorController.php	8	1
.../object-freezer/application/controllers/IndexController.php	4	0
...boratorio/Jenkins/object-freezer/build/api/media/banner.css	13	0
...e/gpupo/Laboratorio/Jenkins/object-freezer/public/index.php	6	1
...eezer/tests/application/controllers/IndexControllerTest.php	4	3
...pupo/Laboratorio/Jenkins/object-freezer/tests/bootstrap.php	5	1

A TOTAL OF 42 ERROR(S) AND 6 WARNING(S) WERE FOUND IN 7 FILE(S)

Time: 1 second, Memory: 9.25Mb

Configure

(phpcs LIKE A BOSS)

```
sudo phpcs --config-set default_standard Zend
sudo phpcs --config-set zend_ca_path \
/usr/share/php/phing/tasks/ext/ZendCodeAnalyzerTask.php
```

```
phpcs --config-show
```

```
gpupo@gpupo-desktop:~/Laboratorio/Jenkins/object-freezer - 12:15:57
$ cat /usr/share/php/PHP/CodeSniffer/Standards/Zend/ruleset.xml
<?xml version="1.0"?>
<ruleset name="Zend">
    <description>A coding standard based on an early Zend Framework coding standard. Note that this
standard is out of date.</description>

    <!-- Include some sniffs from all around the place -->
    <rule ref="Generic.Functions.FunctionCallArgumentSpacing"/>
    <rule ref="Generic.Functions.OpeningFunctionBraceBsdAllman"/>
    <rule ref="Generic.PHP.DisallowShortOpenTag"/>
    <rule ref="Generic.WhiteSpace.DisallowTabIndent"/>
    <rule ref="PEAR.Classes.ClassDeclaration"/>
    <rule ref="PEAR.ControlStructures.ControlSignature"/>
    <rule ref="PEAR.Functions.FunctionCallSignature"/>
    <rule ref="PEAR.Functions.ValidDefaultValue"/>
    <rule ref="PEAR.WhiteSpace.ScopeClosingBrace"/>
    <rule ref="Squiz.Functions.GlobalFunction"/>

    <!-- Lines can be 80 chars long, show errors at 120 chars -->
    <rule ref="Generic.Files.LineLength">
        <properties>
            <property name="lineLimit" value="80"/>
            <property name="absoluteLineLimit" value="120"/>
        </properties>
    </rule>

    <!-- Use Unix newlines -->
    <rule ref="Generic.Files.LineEndings">
        <properties>
            <property name="eolChar" value="\n"/>
        </properties>
    </rule>

</ruleset>
```

```
gpupo@gpupo-desktop:~/Laboratorio/Jenkins/object-freezer - 12:15:57
```

```
$ cat /usr/share/php/PHP/CodeSniffer/Standards/Zend/ruleset.xml
```

```
<?xml version="1.0"?>
```

```
<ruleset>
```

```
  <desc>
```

```
    standard
```

```
    <!-- This is the standard -->
```

phpcs --standard=/path/to/custom_ruleset.xml test.php

```
    <rule ref="PEAR.Classes.ClassDeclaration"/>
```

```
    <rule ref="PEAR.ControlStructures.ControlSignature"/>
```

```
    <rule ref="PEAR.Functions.FunctionCallSignature"/>
```

```
    <rule ref="PEAR.Functions.ValidDefaultValue"/>
```

```
    <rule ref="PEAR.WhiteSpace.ScopeClosingBrace"/>
```

```
    <rule ref="Squiz.Functions.GlobalFunction"/>
```

```
    <!-- Lines can be 80 chars long, show errors at 120 chars -->
```

```
    <rule ref="Generic.Files.LineLength">
```

```
      <properties>
```

```
        <property name="lineLimit" value="80"/>
```

```
        <property name="absoluteLineLimit" value="120"/>
```

```
      </properties>
```

```
    </rule>
```

```
    <!-- Use Unix newlines -->
```

```
    <rule ref="Generic.Files.LineEndings">
```

```
      <properties>
```

```
        <property name="eolChar" value="\n"/>
```

```
      </properties>
```

```
    </rule>
```

```
  </ruleset>
```

```
gpupo@gpupo-desktop:~/Laboratorio/Jenkins/object-freezer - 12:15:57
```

```
$ cat /usr/share/php/PHP/CodeSniffer/Standards/Zend/ruleset.xml
```

```
<?xml version="1.0"?>
```

```
<ruleset>
```

```
  <desc>
```

```
    standard
```

```
  <!-- -->
```

```
  <rule>
```

```
  <rule>
```

```
  <rule>
```

```
  <rule>
```

```
  <rule ref="PEAR.Classes.ClassDeclaration">
```

```
  <rule ref="PEAR.ControlStructures.ControlStructure">
```

```
  <rule ref="PEAR.Functions.FunctionDeclaration">
```

```
  <rule ref="PEAR.Functions.ValidDefinition">
```

```
  <rule ref="PEAR.WhiteSpace.ScopeClosing">
```

```
  <rule ref="Squiz.Functions.GlobalFunctionDeclaration">
```

```
  <rule ref="Squiz.Functions.GlobalVariableDeclaration">
```

```
  <rule ref="Squiz.Functions.NoUnusedFunctionDeclaration">
```

```
  <rule ref="Squiz.Functions.NoUnusedMethodDeclaration">
```

```
  <rule ref="Squiz.Functions.NoUnusedParameter">
```

```
  <rule ref="Squiz.Functions.NoUnusedVariable">
```

```
  <!-- Lines can be 80 chars long, so let's放宽一点-->
```

```
  <rule ref="Generic.Files.LineLength">
```

```
    <properties>
```

```
      <property name="lineLimit" value="80"/>
```

```
      <property name="absoluteLineLimit" value="80"/>
```

```
    </properties>
```

```
  </rule>
```

```
  <!-- Use Unix newlines -->
```

```
  <rule ref="Generic.Files.LineEndings">
```

```
    <properties>
```

```
      <property name="eolChar" value="\n"/>
```

```
    </properties>
```

```
  </rule>
```

```
</ruleset>
```

phpcs --standard=/path/to/custom_ruleset.xml test.php

Coding Standard Tutorial

Coding Standard Tutorial – A guide to writing your own code sniffs

Introduction

In this tutorial, we will create a new coding standard with a single sniff. Our sniff will prohibit the use of Perl style hash comments.

Creating the Coding Standard Directory

All sniffs in PHP_CodeSniffer must belong to a coding standard. A coding standard is a directory with a specific sub-directory structure.

MyStandard. Run the following commands to create the coding standard directory structure:

```
$ mkdir MyStandard  
$ mkdir MyStandard/Sniffs
```



As this coding standard directory sits outside the main PHP_CodeSniffer directory structure, PHP_CodeSniffer will not see it. If you want to be able to run the sniff from the command line, you will need to add it to the configuration file. To do this, create the MyStandard directory inside the PHP_CodeSniffer install:

```
$ cd /path/to/PHP_CodeSniffer/CodeSniffer/Standards  
$ mkdir MyStandard  
$ mkdir MyStandard/Sniffs
```

The MyStandard directory represents our coding standard. The Sniffs sub-directory is used to store all the sniff files for this coding standard.

Now that our directory structure is created, we need to add our ruleset.xml file. This file will allow PHP_CodeSniffer to ask our coding standard for its sniff files.

```
$ cd MyStandard  
$ touch ruleset.xml
```

```
gupo@gupo-desktop:~/Laboratorio/Jenkins/object-freezer - 12:15:57
```

```
$ cat /usr/share/php/PHP/CodeSniffer/Standards/Zend/ruleset.xml
```

```
<?xml version="1.0"?>
```

```
<ruleset>
```

```
    <description>
```

```
        standard
```

```
    </description>
```

```
<!-- -->
```

```
<rule ref="PEAR.Classes.ClassDeclaration">
```

```
<rule ref="PEAR.ControlStructures">
```

phpcs --standard=/path/to/custom_ruleset.xml test.php

Coding Standard Tutorial

Coding Standard Tutorial – A guide to writing your own code sniffs

Introduction

In this tutorial, we will create a new coding standard with a single sniff. Our sniff will prohibit the use of Perl style hash comments.

Creating the Sniff

A sniff requires a single PHP file. Its name should clearly describe the standard that we are enforcing and must end with Sniff.php. For our sniff, we will use DisallowHashCommentsSniff.php. We will also create a sub-directory to categorise this sniff as relating to commenting. Run the following commands to create the category and the sniff:

```
$ cd Sniffs  
$ mkdir Commenting  
$ touch Commenting/DisallowHashCommentsSniff.php
```



It does not matter what sub-directories you use for categorising your sniffs. Just make them descriptive enough so you can find your sniff later.

Each sniff must implement the PHP_CodeSniffer_Sniff interface so that PHP_CodeSniffer knows that it should instantiate the sniff once it's invoked via `register()` and `process()`.

The register() and process() Methods

The `register()` method allows a sniff to subscribe to one or more token types that it wants to process. Once PHP_CodeSniffer encounters one of these tokens, it will call the sniff's `process()` method with the token representation (the code, type and content of the current file being checked) and the position in the stack where the token was found.

For our sniff, we are interested in single line comments. The `token_get_all()` method that PHP_CodeSniffer uses to acquire the tokens with their representations is very useful here. Therefore, we don't have to worry about doc comments interfering with our test. The `register()` method only needs to return one token type.

The Token Stack

A sniff can gather more information about a token by acquiring the token stack with a call to the `getTokens()` method on the PHP_CodeSniffer object. This method returns an array of tokens. Each token has a code, type and a content index in its representation. The code is the name of the token (e.g., 'T_COMMENT' for comment tokens). The type has a corresponding globally defined integer with the same name. Finally, the content is the actual content of the token.



Some tokens have more indexes than those described above. Have a look in the PHP/CodeSniffer/File.php class comment for a full list of them.

A coding standard is a directory with a specific sub-directory structure. It contains a sub-directory for each sniff and a sub-directory for the standard. The standard directory contains a sub-directory for each sniff. This structure allows for easy organization and management of multiple sniffs within a single standard.

In the main PHP_CodeSniffer directory structure, PHP_CodeSniffer will not see the sub-directories. Instead, it will see the standard directory inside the PHP_CodeSniffer install:

standards

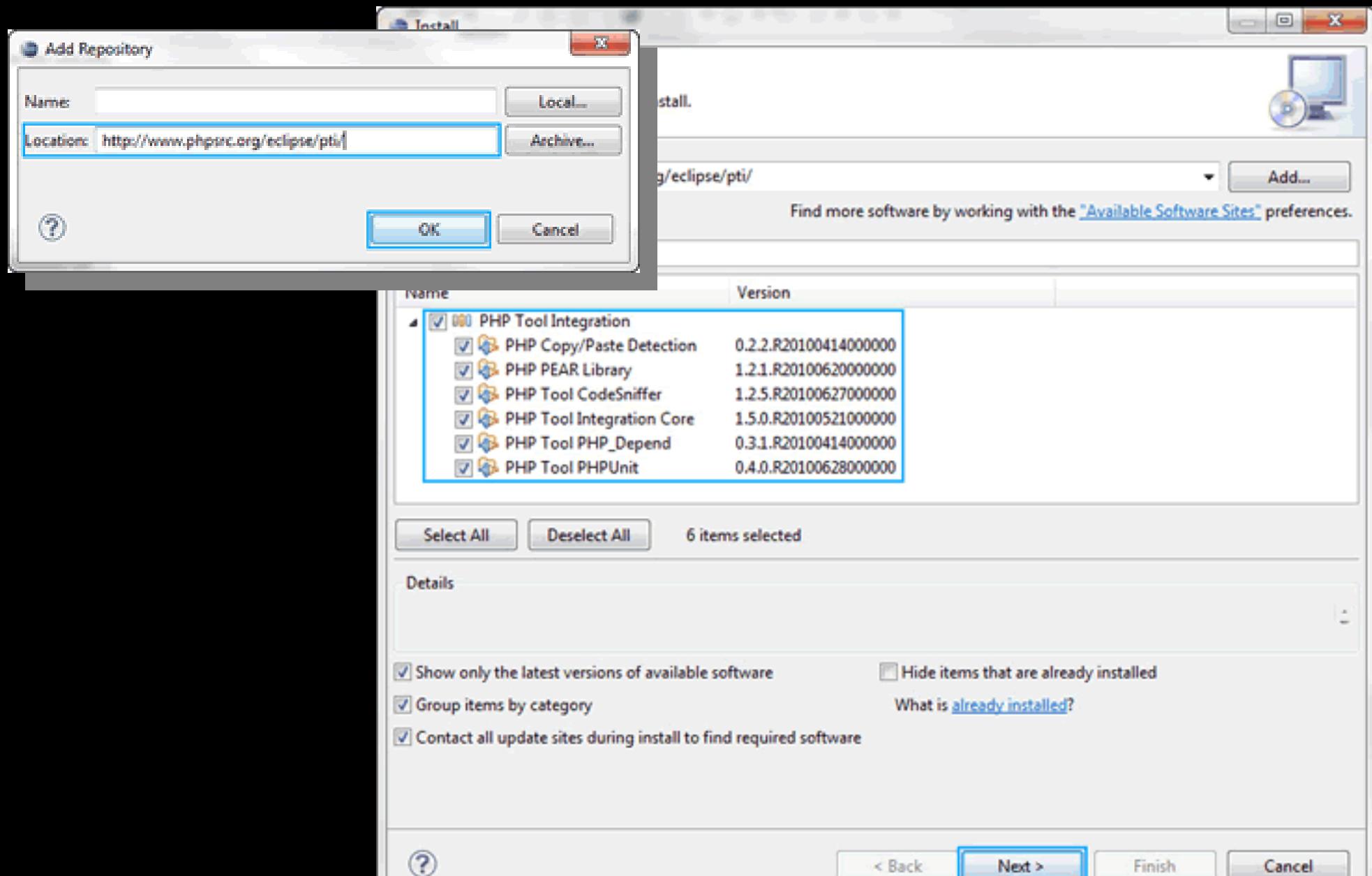
d. The Sniffs sub-directory is used to store all the sniff files for this coding standard.

e. The ruleset.xml file. This file will allow PHP_CodeSniffer to ask our coding standard for its ruleset.

Eclipse

plugin

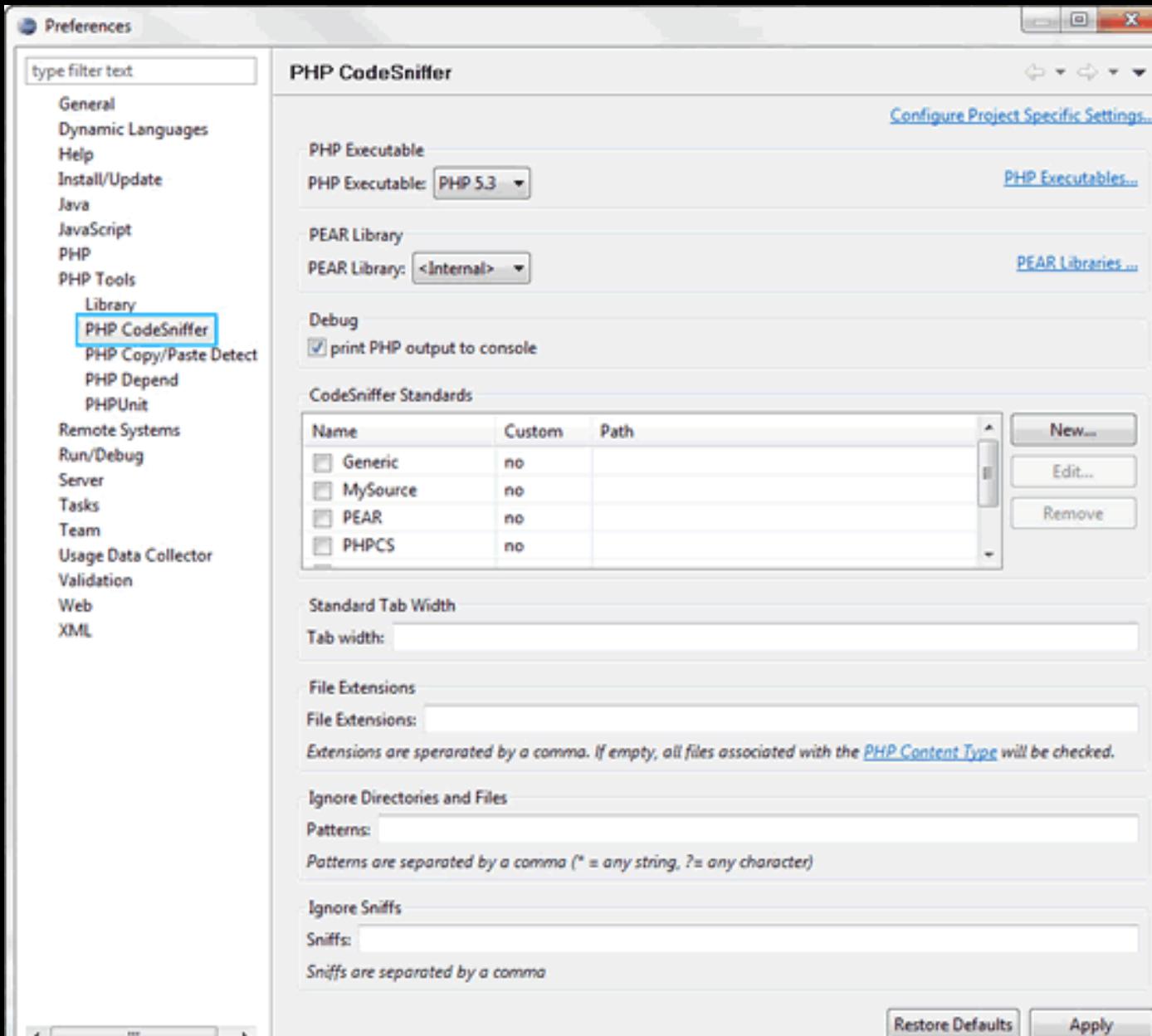
<http://www.phpsrc.org/eclipse/pti/>



Eclipse

plugin

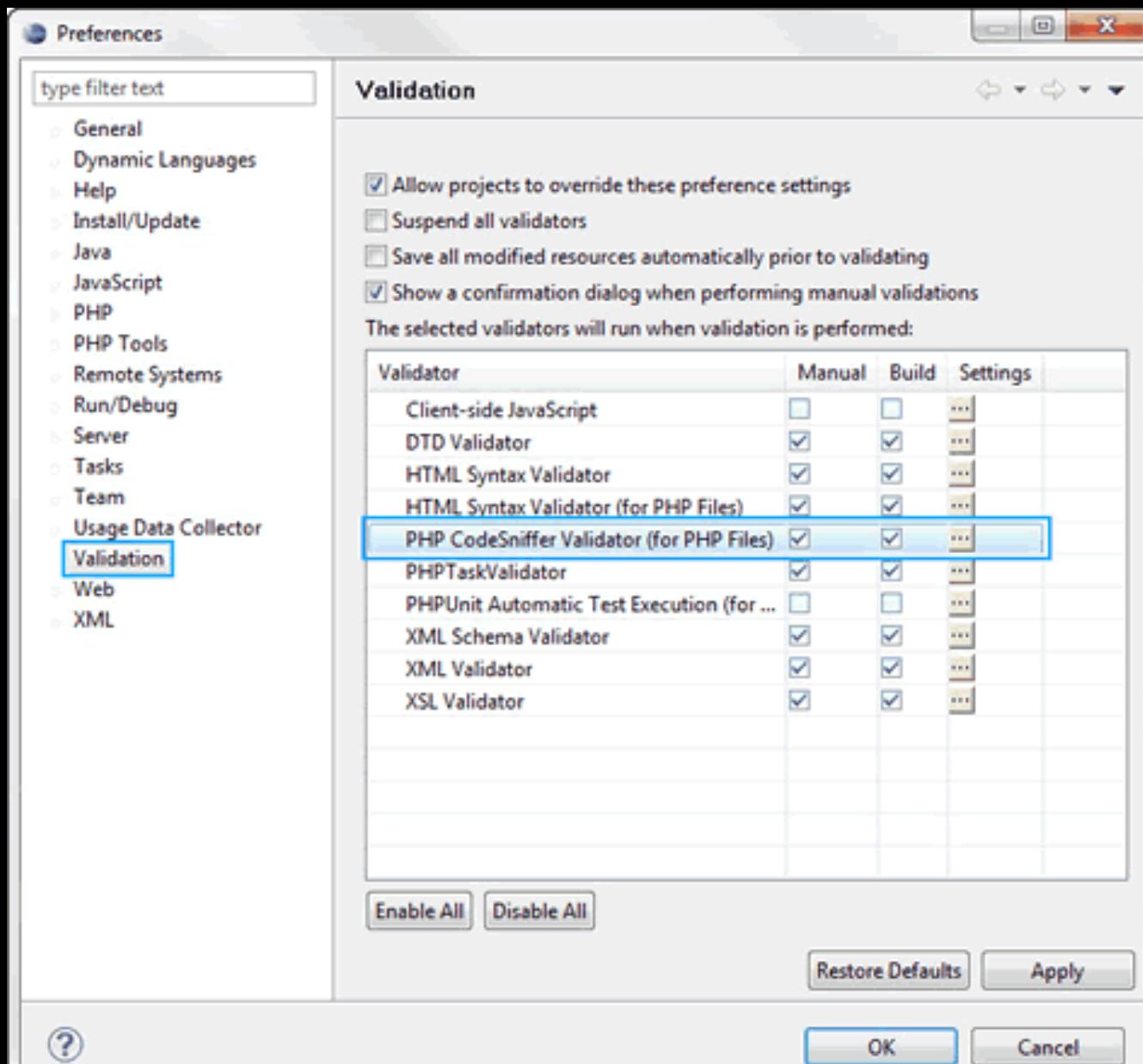
<http://www.phpsrc.org/eclipse/pti/>



Eclipse

plugin

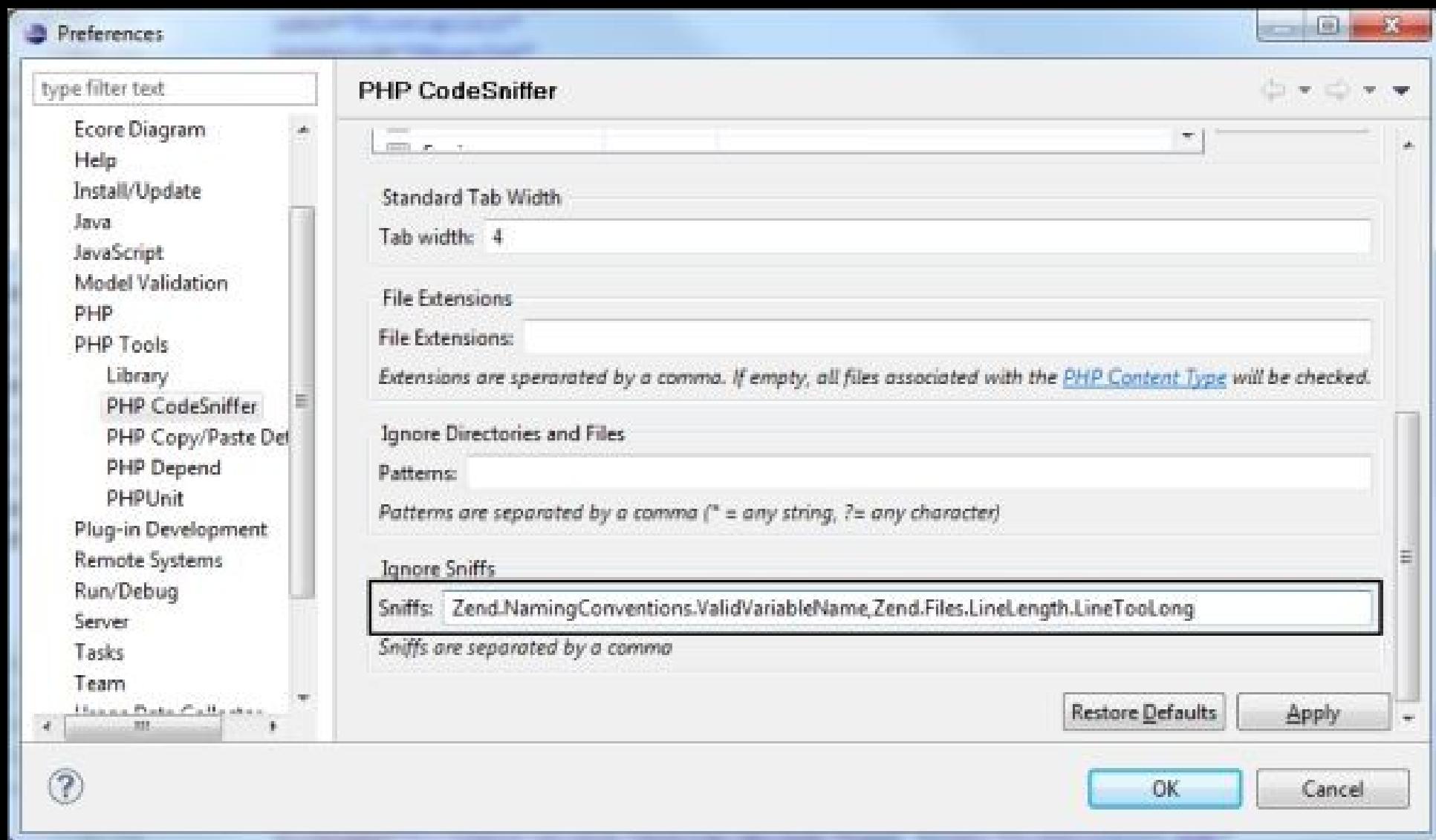
<http://www.phpsrc.org/eclipse/pti/>



Eclipse

plugin

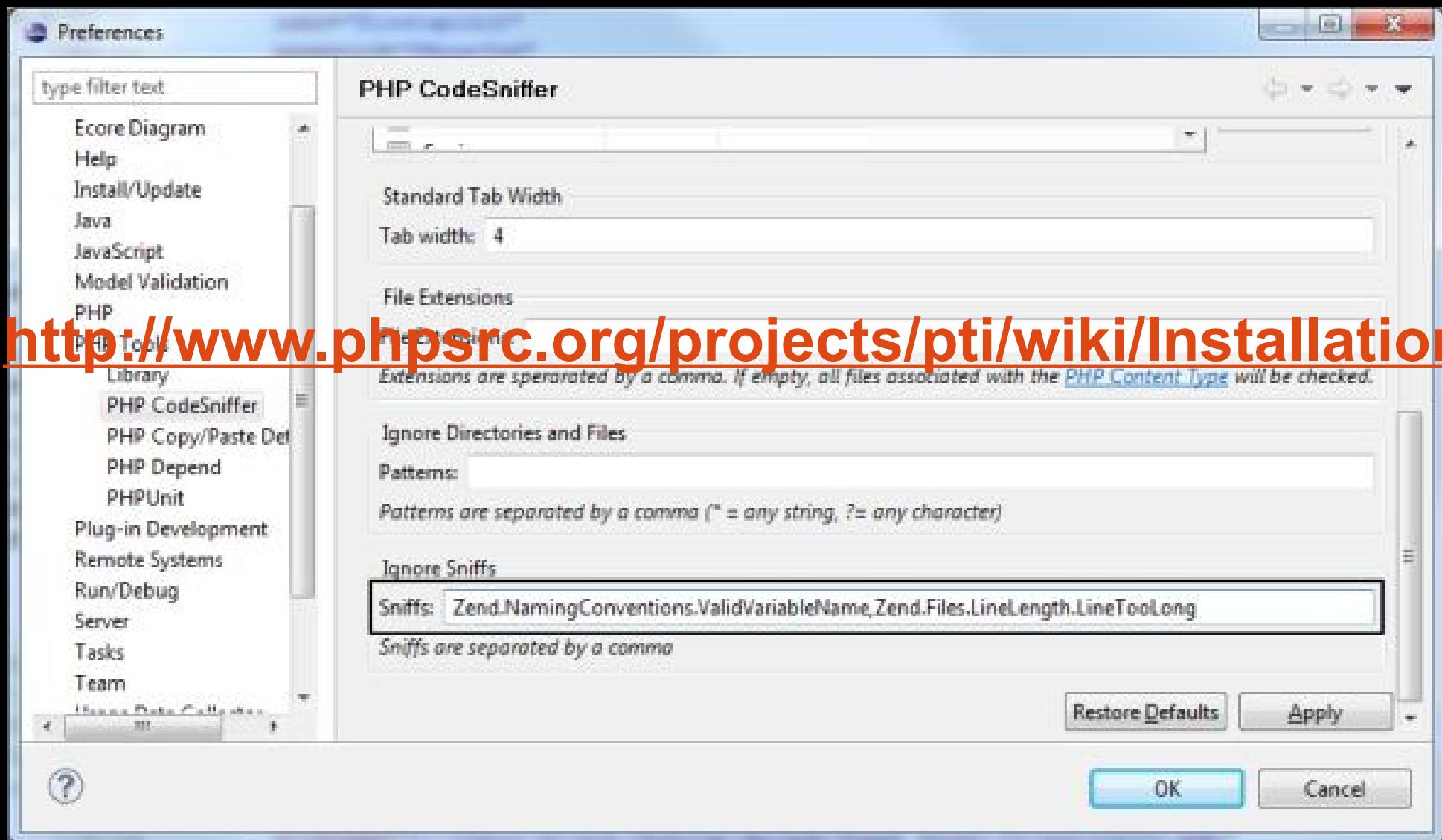
<http://www.phpsrc.org/eclipse/pti/>



Eclipse

plugin

<http://www.phpsrc.org/eclipse/pti/>



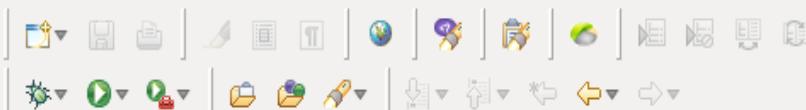
Eclipse

plugin

<http://www.phpsrc.org/eclipse/pti/>

<http://www.phpsrc.org/projects/pti/wiki/Installation>

<http://www.phpsrc.org/projects/pti-php-codesniffer/wiki/Configuration>



PHP Explorer Type Hierarchy

object-freezer



▶ application

▶ public

▶ src

▶ tests

▶ build

▶ docs

library

build.xml

phpunit.xml.dist

README

▶ PHP Include Path

▶ PHP Language Library

Bootstrap.php bootstrap.php

```
1 <?php
2
3 // Define path to application directory
4 defined('APPLICATION_PATH')
5     || define('APPLICATION_PATH', realpath(dirname(__FILE__) . '/../application'));
6
7 // Define application environment
8 defined('APPLICATION_ENV')
9     || define('APPLICATION_ENV', (getenv('APPLICATION_ENV') ? getenv('APPLICATION_ENV') : 'testing'));
10
11 // Ensure library/ is on include_path
12 set_include_path(implode(PATH_SEPARATOR, array(
13     realpath(APPLICATION_PATH . '/../library'),
14     get_include_path(),
15 )));
16
17 require_once 'Zend/Loader/Autoloader.php';
18 Zend_Loader_Autoloader::getInstance();
19
```

PHP Explorer Type Hierarchy

object-freezer

application
public
src
tests
 application
 library
 bootstrap.php
 phpunit.xml
build
docs
 library
build.xml
phpunit.xml.dist
README
PHP Include Path
PHP Language Library

bootstrap.php

```
1 <?php
2
3 // Define path to application directory
4 defined('APPLICATION_PATH')
5     || define('APPLICATION_PATH', realpath(dirname(__FILE__)) . '/').
6
7 // Define application environment
8 defined('APPLICATION_ENV')
9     || define('APPLICATION_ENV', (getenv('APPLICATION_ENV') ? getenv('APPLICATION_ENV') : 'development'));
10
11 // Ensure library/ is on include_path
12 set_include_path(implode(PATH_SEPARATOR, array(
13     realpath(APPLICATION_PATH . '/../library'),
14     get_include_path(),
15 )));
16
17 require_once 'Zend/Loader/Autoloader.php';
18 Zend_Loader_Autoloader::getInstance();
19
```

Problems

30 errors, 25 warnings, 0 others

Description	Resource	Path	Location	Type
Errors (30 items)				
✖ Closing parenthesis of a multi-line function call omitted	bootstrap.php	/object-freezer/test/bootstrap.php	line 15	PHP CodeSniffer
✖ Closing parenthesis of a multi-line function call omitted	bootstrap.php	/object-freezer/test/bootstrap.php	line 15	PHP CodeSniffer
✖ Closing parenthesis of a multi-line function call omitted	index.php	/object-freezer/public/index.php	line 15	PHP CodeSniffer
✖ Closing parenthesis of a multi-line function call omitted	index.php	/object-freezer/public/index.php	line 15	PHP CodeSniffer
✖ Line indented incorrectly; expected 8 spaces, found 4	ErrorController.php	/object-freezer/applications/controllers/ErrorController.php	line 16	PHP CodeSniffer
✖ Line indented incorrectly; expected 8 spaces, found 4	ErrorController.php	/object-freezer/applications/controllers/ErrorController.php	line 17	PHP CodeSniffer
✖ Line indented incorrectly; expected 8 spaces, found 4	ErrorController.php	/object-freezer/applications/controllers/ErrorController.php	line 18	PHP CodeSniffer
✖ Line indented incorrectly; expected 8 spaces, found 4	ErrorController.php	/object-freezer/applications/controllers/ErrorController.php	line 24	PHP CodeSniffer
✖ Missing class doc comment	Bootstrap.php	/object-freezer/applications/controllers/Bootstrap.php	line 3	PHP CodeSniffer
✖ Missing class doc comment	ErrorController.php	/object-freezer/applications/controllers/ErrorController.php	line 3	PHP CodeSniffer
✖ Missing class doc comment	IndexController.php	/object-freezer/applications/controllers/IndexController.php	line 3	PHP CodeSniffer
✖ Missing class doc comment	IndexController.php	/object-freezer/test/controllers/IndexController.php	line 3	PHP CodeSniffer
✖ Missing file doc comment	Bootstrap.php	/object-freezer/applications/controllers/Bootstrap.php	line 2	PHP CodeSniffer
✖ Missing file doc comment	ErrorController.php	/object-freezer/applications/controllers/ErrorController.php	line 2	PHP CodeSniffer
✖ Missing file doc comment	IndexController.php	/object-freezer/applications/controllers/IndexController.php	line 2	PHP CodeSniffer
✖ Missing file doc comment	IndexController.php	/object-freezer/test/controllers/IndexController.php	line 2	PHP CodeSniffer

```
$ phpcs --report=source .
```

PHP CODE SNIFFER VIOLATION SOURCE SUMMARY

STANDARD	CATEGORY	SNIFF	COUNT
Generic	White space	Disallow tab indent tabs used	3
Generic	Files	Line length too long	6
PEAR	Commenting	File comment missing	4
PEAR	Commenting	Class comment missing	4
PEAR	White space	Scope indent incorrect	4
PEAR	Commenting	Function comment missing	4
PEAR	Functions	Function call signature close bracket line	4
PEAR	Functions	Function call signature content after open	4
PEAR	Commenting	Function comment wrong style	2
PEAR	Commenting	File comment wrong style	2
PEAR	White space	Object operator indent incorrect	1

A TOTAL OF 48 SNIFF VIOLATION(S) WERE FOUND IN 11 SOURCE(S)

Time: 1 second, Memory: 9.25Mb

```
$ phpcs --report=source .
```

PHP CODE SNIFFER VIOLATION SOURCE SUMMARY

STANDARD	CATEGORY	SNIFF	COUNT
Generic	White space	Disallow tab indent tabs used	3
Generic	Files	Line length too long	6
PEAR	Commenting	File comment missing	4
PEAR	Commenting	Class comment missing	4
PEAR	White space	Indent incorrect	4
PEAR	Commenting	Open comment missing	4
PEAR	Functions	On call signature close bracket line	4
PEAR	Functions	On call signature content after open	4
PEAR	Commenting	Section comment wrong style	2
PEAR	Commenting	Comment wrong style	2
PEAR	White space	Concat operator indent incorrect	1

A TOTAL OF 48

(S) WERE FOUND IN 11 SOURCE(S)

Time: 1 sec

```
find /usr/share/php/PHP/CodeSniffer/Standards/ -name "*Sniff.php" -and -not -name "Abstract"
```

```
1 <?php
2
3 class recipe
4 {
5
6     protected $_id;
7
8     public $name;
9
10    public $prep_time;
11
12    function getIngredients() {
13        $ingredients = Ingredients::fetchAllById($this->_id);
14        return $ingredients;
15    }
16
17 ?>
```

Está correto?

```
1 <?php
2
3 class recipe
4 {
5
6     protected $_id;
7
8     public $name;
9
10    public $prep_time;
11
12    function getIngredients() {
13        $ingredients = Ingredients::fetchAllById($this->_id);
14        return $ingredients;
15    }
16
17 ?>
```

Está correto?

**phpcs --standard=Zend
recipe.class.php**

```
1 <?php
2
3 class recipe
4 {
5
6     protected $_id;
7
8     public $name;
9
10    public $prep_time;
11
12    function getIngredients() {
13        $ingredients = Ingredients::fetchAllById($this->_id);
14        return $ingredients;
15    }
16
17 ?>
```

Está correto?

```
1 <?php
2
3 class recipe
4 {
5
6     protected $_id;
7
8     public $name;
9
10    public $prep_time;
11
12
13    function getIngredients() {
14        $ingredients = Ingredients::fetchAllById($this->_id);
15        return $ingredients;
16    }
17 }
?>
```

Está correto?

**phpcs --standard=Zend
recipe.class.php**

phpcs recipe.class.php

```
gpupo@gpupo-desktop:~/Laboratorio/Jenkins/PHP - 19:57:46
$ phpcs recipe.class.php -v
Registering sniffs in PEAR standard... DONE (26 sniffs registered)
Creating file list... DONE (1 files in queue)
Processing recipe.class.php [66 tokens in 17 lines]... DONE in < 1 second (6 errors, 0
warnings)
```

```
FILE: /home/gpupo/Laboratorio/Jenkins/PHP/recipe.class.php
```

```
-----  
FOUND 6 ERROR(S) AFFECTING 4 LINE(S)
```

```
-----  
2 | ERROR | Missing file doc comment  
3 | ERROR | Class name must begin with a capital letter  
3 | ERROR | Missing class doc comment  
6 | ERROR | Protected member variable "_id" must not be prefixed with an  
|         | underscore  
12 | ERROR | Missing function doc comment  
12 | ERROR | Opening brace should be on a new line
```

```
-----  
Time: 0 seconds, Memory: 5.50Mb
```

```
gpupo@gpupo-desktop:~/Laboratorio/Jenkins/PHP - 19:58:08
$ phpcs recipe.class.php -v --standard=Zend
Registering sniffs in Zend standard... DONE (15 sniffs registered)
Creating file list... DONE (1 files in queue)
Processing recipe.class.php [66 tokens in 17 lines]... DONE in < 1 second (3 errors, 0
warnings)
```

```
FILE: /home/gpupo/Laboratorio/Jenkins/PHP/recipe.class.php
```

```
-----  
FOUND 3 ERROR(S) AFFECTING 3 LINE(S)
```

```
-----  
10 | ERROR | Variable "prep_time" is not in valid camel caps format  
12 | ERROR | Opening brace should be on a new line  
17 | ERROR | A closing tag is not permitted at the end of a PHP file
```

Refactory

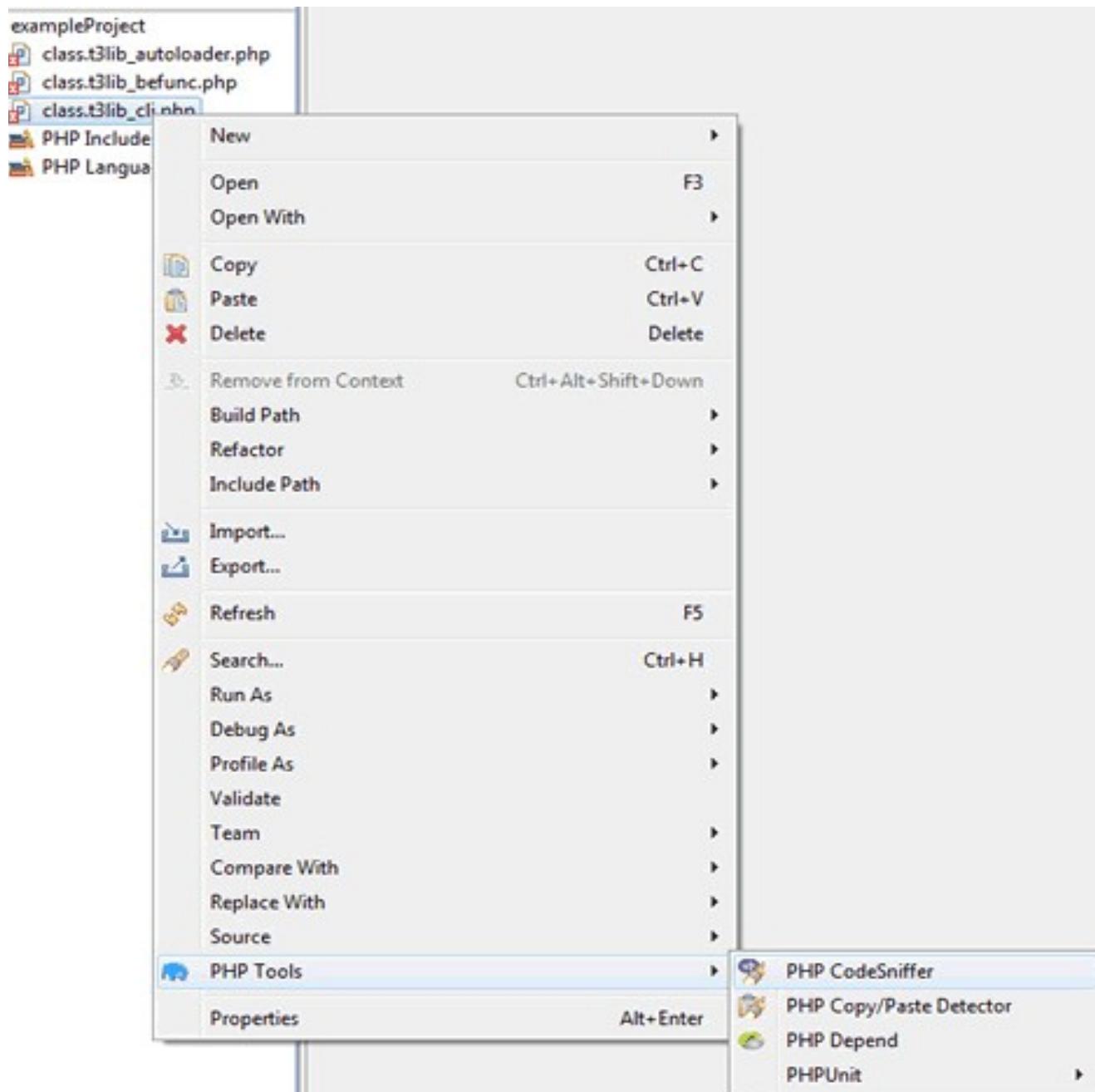
(PEAR)

OpeningFunctionBrace**BsdAllmanSniff**
X
OpeningFunctionBraceKernighanRitchieSniff

```
1 <?php
2
3 /**
4  * Recipe class file
5 *
6 *
7 * PHP Version 5.2
8 *
9 * @category Recipe
10 * @package Recipe
11 * @author Lorna Jane Mitchell <lorna@ibuildings.com>
12 * @license http://opensource.org/licenses/gpl-license.php GNU Public License
13 * @link http://example.com/recipes
14 */
15
16
17 /**
18 * Recipe class
19 *
20 *
21 * The class holding the root Recipe class definition
22 *
23 * @category Recipe
24 * @package Recipe
25 * @author Lorna Jane Mitchell <lorna@ibuildings.com>
26 * @license http://opensource.org/licenses/gpl-license.php GNU Public License
27 * @link http://example.com/recipes/recipe
28 */
29
30 class Recipe
31 {
32
33     protected $id;
34
35     public $name;
36
37     public $prep_time;
38
39 }
```

```
29 */  
30  
31 class Recipe  
32 {  
33  
34     protected $id;  
35  
36     public $name;  
37  
38     public $prep_time;  
39  
40     /**  
41      * Get the ingredients  
42      *  
43      * This function calls a static fetching method against the Ingredient class  
44      * and returns everything matching this recipe ID  
45      *  
46      * @return array An array of Ingredient objects  
47      */  
48     function getIngredients()  
49     {  
50         $ingredients = Ingredient::fetchAllByRecipe($this->id);  
51         return $ingredients;  
52     }  
53 }  
54 ?>
```

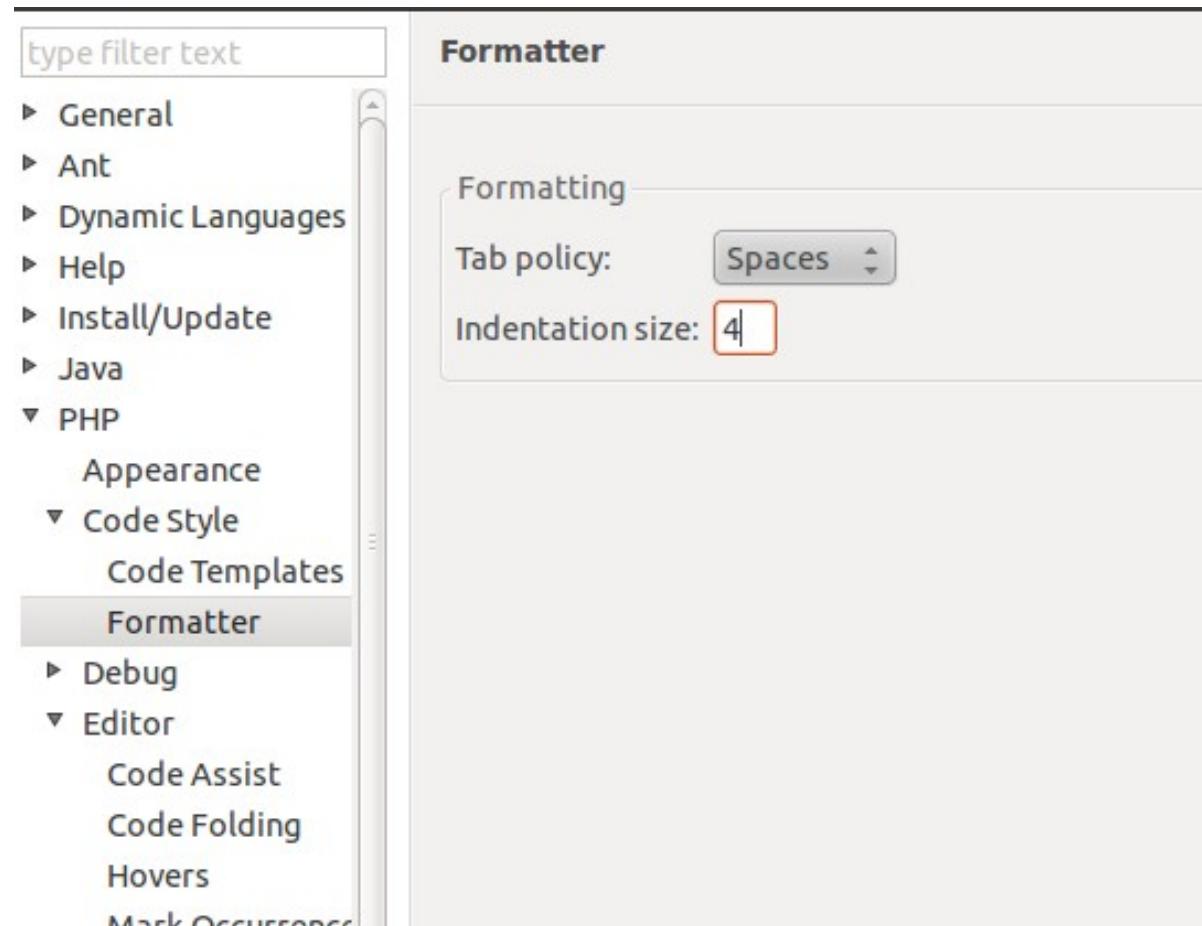
Manual validation



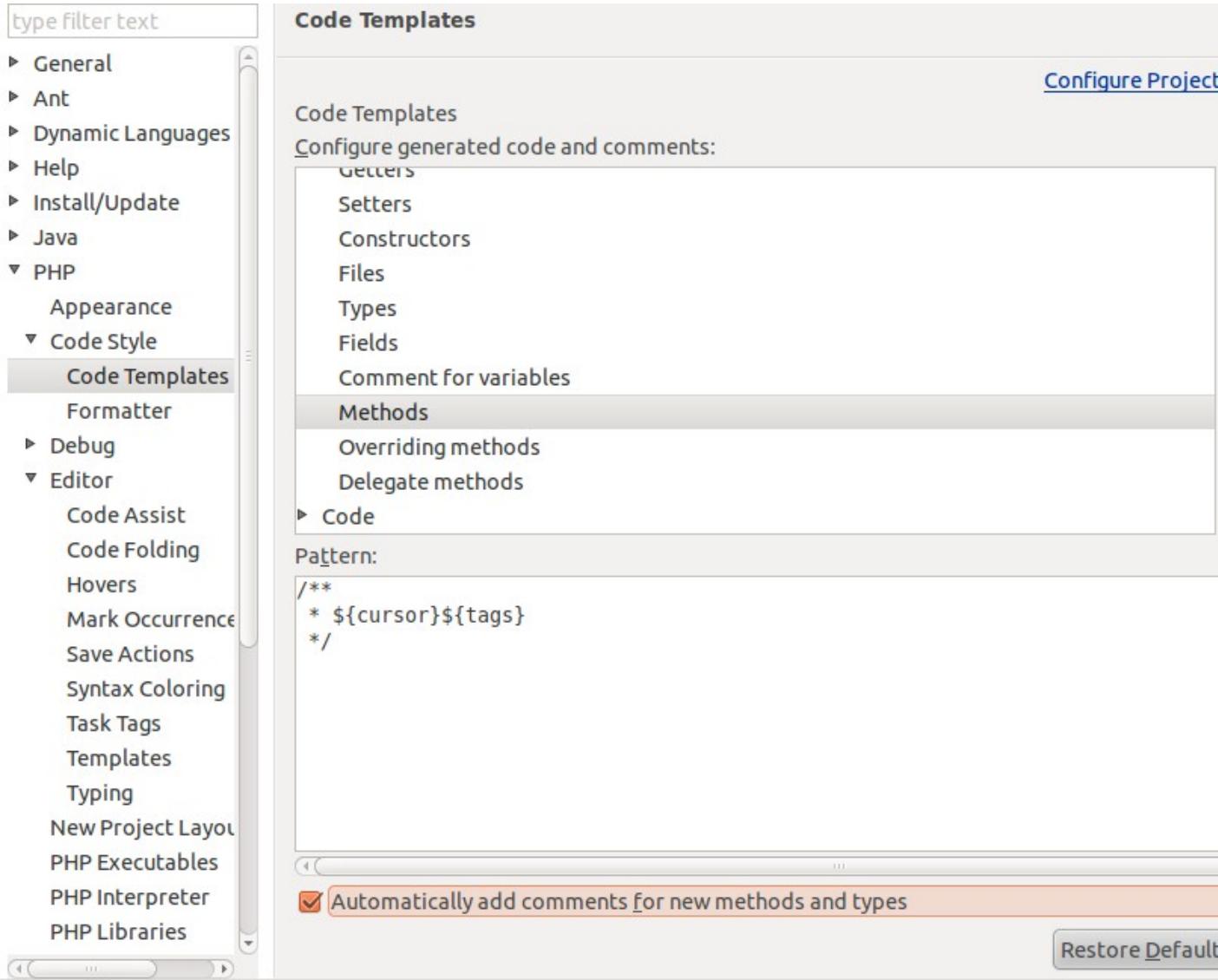
Click on the
PHP_CodeSniffer
toolbar icon to check
selected file.



Eclipse espaces x tabs



Eclipse templates





WIKIPEDIA
The Free Encyclopedia

Article Discussion

Duplicate code

Duplicate code

From Wikipedia, the free encyclopedia

- Duplicate code is a computer programming term for a sequence of source code that occurs more than once, either within a program or across different programs owned or maintained by the same entity.
- Duplicate code is generally considered undesirable for a number of reasons.





Duplicate code

Duplicate code

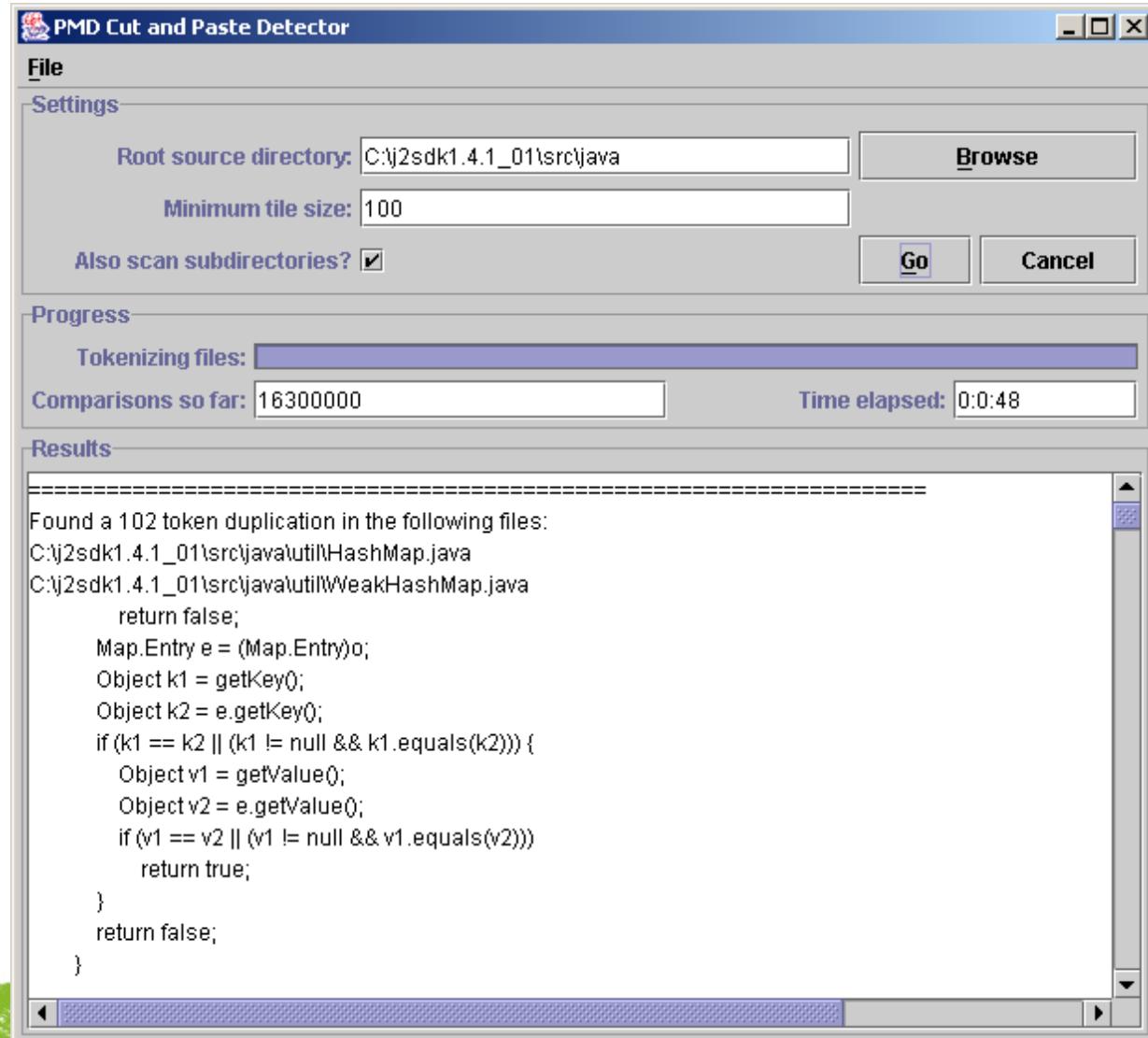
From Wikipedia, the free encyclopedia

- A minimum requirement is usually applied to the quantity of code that must appear in a sequence for it to be considered duplicate rather than coincidentally similar.
- Sequences of duplicate code are sometimes known as clones.





PMD's Copy/Paste Detector (CPD)





PMD's Copy/Paste Detector (CPD)

```
public class Something {  
    private static int FOO = 2; // Unused  
    private int i = 5; // Unused  
    private int j = 6;  
    public int addOne() {  
        return j++;  
    }  
}
```





PMD's Copy/Paste Detector (CPD)

```
public class Foo {  
    private String baz() {  
        String bar = "howdy";  
        return bar.toString();  
    }  
}
```



PHP Copy/Paste Detector

- O objetivo do phpcpd é oferecer uma visão geral do código duplicado em um projeto.

```
$ sudo pear channel-discover pear.phpunit.de
```

```
$ sudo pear channel-discover components.ez.no
```

```
$ sudo pear install phpunit/phpcpd
```



PHP Copy/Paste Detector

Usage: phpcpd [switches] <directory|file> ...

--log-pmd <file> Write report in PMD-CPD XML format to file.

--min-lines <N> Minimum number of identical lines (default: 5).

--min-tokens <N> Minimum number of identical tokens (default: 70).

--exclude <directory> Exclude <directory> from code analysis.

--suffixes <suffix,...> A comma-separated list of file suffixes to check.

--help Prints this usage information.

--version Prints the version and exits.

--verbose Print progress bar.



PHP Copy/Paste Detector

By default phpcpd will search for a minimum of 5 identical lines and 70 identical tokens.

So if there are less than 5 duplicate lines in the code or less than 70 identical tokens they will be ignored.



Localizando duplicações

(hands on)

```
$ phpcpd --min-lines 1 \  
--min-tokens 4 src/  
phpcpd 1.3.2 by Sebastian Bergmann.
```

Found 1 exact clones with 16 duplicated lines in 1 files:

- average.php:6-22
average.php:32-48

31.37% duplicated lines out of 51 total lines of code.

average.php

(hands on)

```
<?php //continuando....  
  
$array1 = array(4,8,5,6);  
$array2 = array(7,78,8,9);  
  
$sum1 = 0;  
$sum2 = 0;  
$average1 = 0;  
$average2 = 0;  
  
for ($i = 0; $i < 4; $i++)  
{  
    $sum1 += $array1[$i];  
}  
$average1 = $sum1/4;  
  
for ($i = 0; $i < 4; $i++)  
{  
    $sum2 += $array2[$i];  
}  
$average2 = $sum2/4;  
  
printf("Soma 1:%d\nMédia 1: %d",$average1,$average2);  
  
$array1 = array(3,3,6,7,8);  
$array2 = array(9,9,8,78,4,6,5);  
  
$sum1 = 0;  
$sum2 = 0;  
$average1 = 0;  
$average2 = 0;  
  
for ($i = 0; $i < 4; $i++)  
{  
    $sum1 += $array1[$i];  
}  
$average1 = $sum1/4;  
  
for ($i = 0; $i < 4; $i++)  
{  
    $sum2 += $array2[$i];  
}  
$average2 = $sum2/4;  
  
printf("\nSoma 2:%d\nMédia 2: %d",$average1,$average2);
```

average.php

(hands on)

```
gpupo@gpupo-desktop:~/Laboratorio/PHP/CPD - 13:22:33
```

```
$ php src/average.php
```

```
Soma 1:5
```

```
Média 1: 25
```

```
Soma 2:4
```

```
Média 2: 26
```

```
gpupo@gpupo-desktop:~/Laboratorio/PHP/CPD - 13:22:39
```

```
$ phpcpd --min-lines 1 --min-tokens 4 src/  
phpcpd 1.3.2 by Sebastian Bergmann.
```

```
Found 1 exact clones with 16 duplicated lines in 1 files:
```

- average.php:6-22
average.php:32-48

```
31.37% duplicated lines out of 51 total lines of code.
```

```
Time: 0 seconds, Memory: 2.75Mb
```

cp

```
gpupo@gpupo-desktop:~/Laboratorio/PHP/CPD - 13:22:42
$ cp src/average.php src/crapCopy.php
```

```
gpupo@gpupo-desktop:~/Laboratorio/PHP/CPD - 13:24:20
$ phpcpd --min-lines 1 --min-tokens 4 src/
phpcpd 1.3.2 by Sebastian Bergmann.
```

Found 2 exact clones with 64 duplicated lines in 2 files:

- crapCopy.php:6-22
crapCopy.php:32-48
- crapCopy.php:3-51
average.php:3-51

62.75% duplicated lines out of 102 total lines of code.

Time: 0 seconds, Memory: 3.00Mb



phpDocumentor

The complete documentation solution
for PHP [sic]



Integração contínua @gpupo



phpDocumentor

Publicos diferentes;

- Interno
- Externo





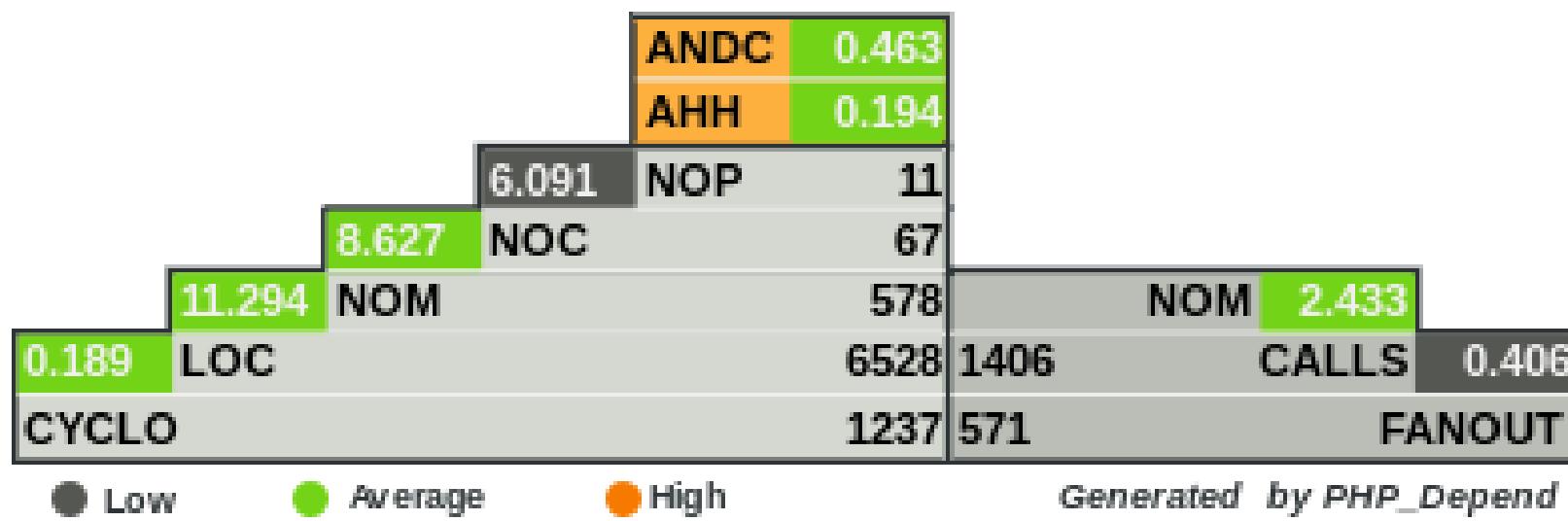
PHP_Depend

Gerar um conjunto de métricas de software a partir de uma base de código dado, para medir a qualidade de um projeto de software e ajudam a identificar as partes de uma aplicação onde uma refatoração pode ser aplicada





PHP Depend



Integração contínua @gpupo

P

H

P

Lines
Of
Code

phploc



phploc

tool for quickly measuring the size of
a PHP project



phploc

tool for quickly measuring the size of
a PHP project

```
$ sudo pear install phpunit/phploc
```



<https://github.com/sebastianbergmann/phploc>

Integração contínua @gpupo

gpupo@gpupo-desktop:~/Laboratorio/Jenkins/object-freezer - 20:12:53

```
$ phploc --count-tests ./  
phploc 1.6.1 by Sebastian Bergmann.
```

Directories:	5
Files:	7
Lines of Code (LOC):	166
Cyclomatic Complexity / Lines of Code:	0.10
Comment Lines of Code (CLOC):	30
Non-Comment Lines of Code (NCLOC):	136
Namespaces:	0
Interfaces:	0
Classes:	3
Abstract:	0 (0.00%)
Concrete:	3 (100.00%)
Average Class Length (NCLOC):	31
Methods:	4
Scope:	
Non-Static:	4 (100.00%)
Static:	0 (0.00%)
Visibility:	
Public:	4 (100.00%)
Non-Public:	0 (0.00%)
Average Method Length (NCLOC):	23
Cyclomatic Complexity / Number of Methods:	3.00
Anonymous Functions:	0
Functions:	0
Constants:	4
Global constants:	4
Class constants:	0
Tests:	
Classes:	1
Methods:	2

PHP Project Wizard (PPW)

commandline tool that can be used
to generate the scripts and
configuration files necessary for the
build automation of a PHP project



<https://github.com/sebastianbergmann/php-project-wizard>

Integração contínua @gpupo

Criando um novo projeto

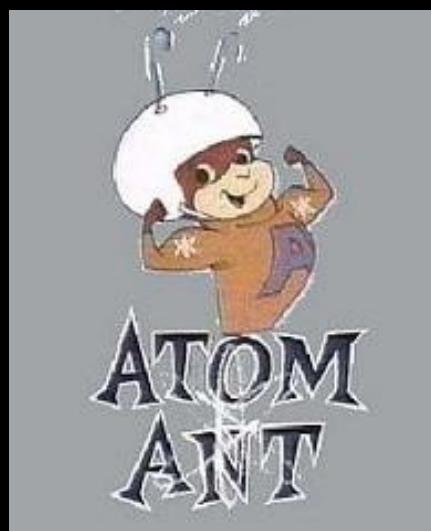
(hands on)

```
$ ppw --source src \  
--tests tests --name object-freezer \  
--bootstrap tests/bootstrap.php .
```

```
$ echo "build" > .gitignore;  
$ echo "source=\${basedir}/src" > build.properties;
```

A formiga atômica!

The Apache Ant build.xml build script



```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Generated by PHP Project Wizard (PPW) 1.0.4 on Wed Jul 6 13:39:22 BRT 2011 --&gt;

&lt;project name="object-freezer" default="build" basedir=".">
<property name="source" value="src"/>

<target name="clean" description="Clean up and create artifact directories">
<delete dir="${basedir}/build/api"/>
<delete dir="${basedir}/build/code-browser"/>
<delete dir="${basedir}/build/coverage"/>
<delete dir="${basedir}/build/logs"/>
<delete dir="${basedir}/build/pdepend"/>
<mkdir dir="${basedir}/build/api"/>
<mkdir dir="${basedir}/build/code-browser"/>
<mkdir dir="${basedir}/build/coverage"/>
<mkdir dir="${basedir}/build/logs"/>
<mkdir dir="${basedir}/build/pdepend"/>
</target>

<target name="phpunit" description="Run unit tests using PHPUnit and generates junit.xml and clover.xml">
<exec executable="phpunit" failonerror="true"/>
</target>

<target name="parallelTasks" description="Run the pdepend, phpmd, phpcpd, phpcs, phpdoc and phploc tasks in parallel
using a maximum of 2 threads.">
<parallel threadCount="2">
<sequential>
<antcall target="pdepend"/>
<antcall target="phpmd"/>
</sequential>
<antcall target="phpcpd"/>
<antcall target="phpcs"/>
<antcall target="phpdoc"/>
<antcall target="phploc"/>
</parallel>
</target>

<target name="pdepend" description="Generate jdepend.xml and software metrics charts using PHP_Depend">
<exec executable="pdepend">
<arg line="--jdepend-xml=${basedir}/build/logs/jdepend.xml
          --jdepend-chart=${basedir}/build/pdepend/dependencies.svg
          --overview-pyramid=${basedir}/build/pdepend/overview-pyramid.svg
          ${source}" />
</exec>
```

Zend Framework...

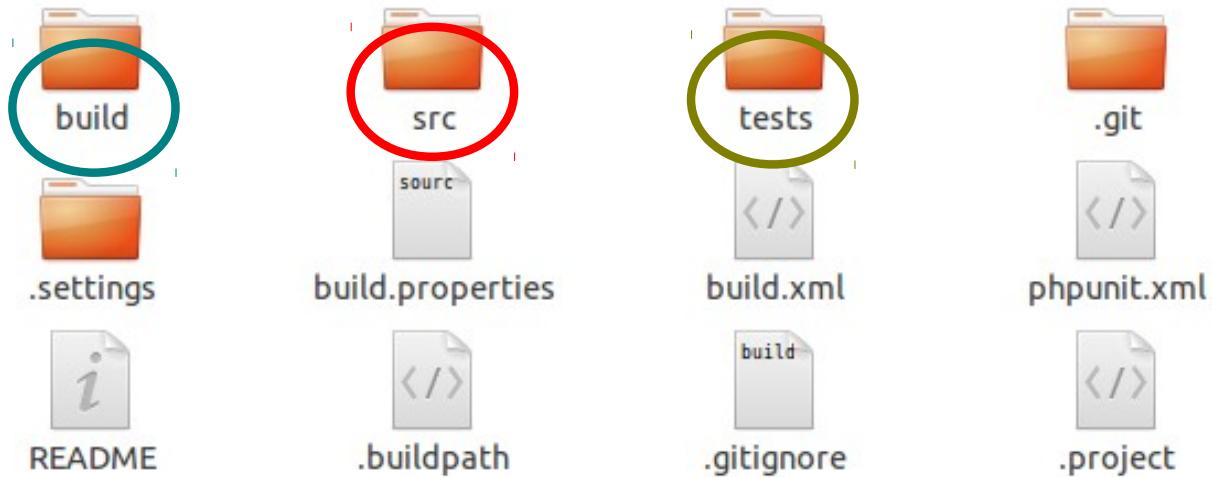
```
$ sudo apt-get install -y zend-framework-bin  
$ sudo pear channel-discover zend.googlecode.com/svn  
$ sudo pear install zend/zend
```

```
$cd src;
```

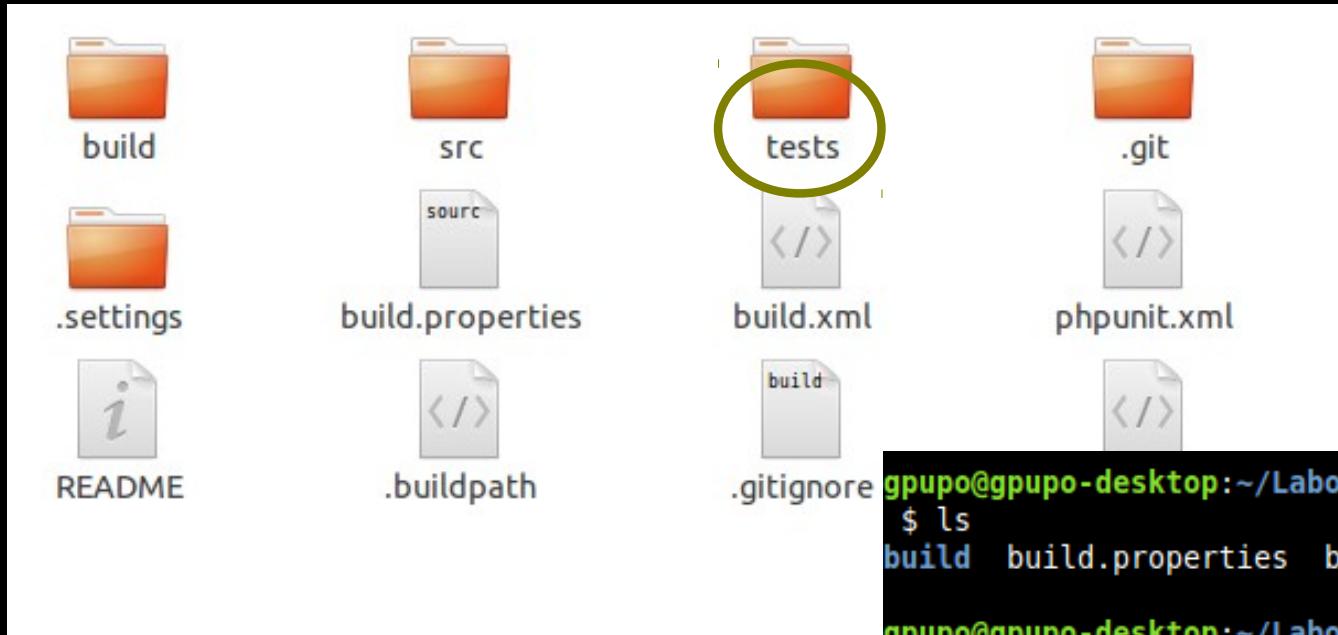
```
$ zf create project \  
. Object-freezer;
```

```
$ mv tests ../../;
```

Estrutura atual

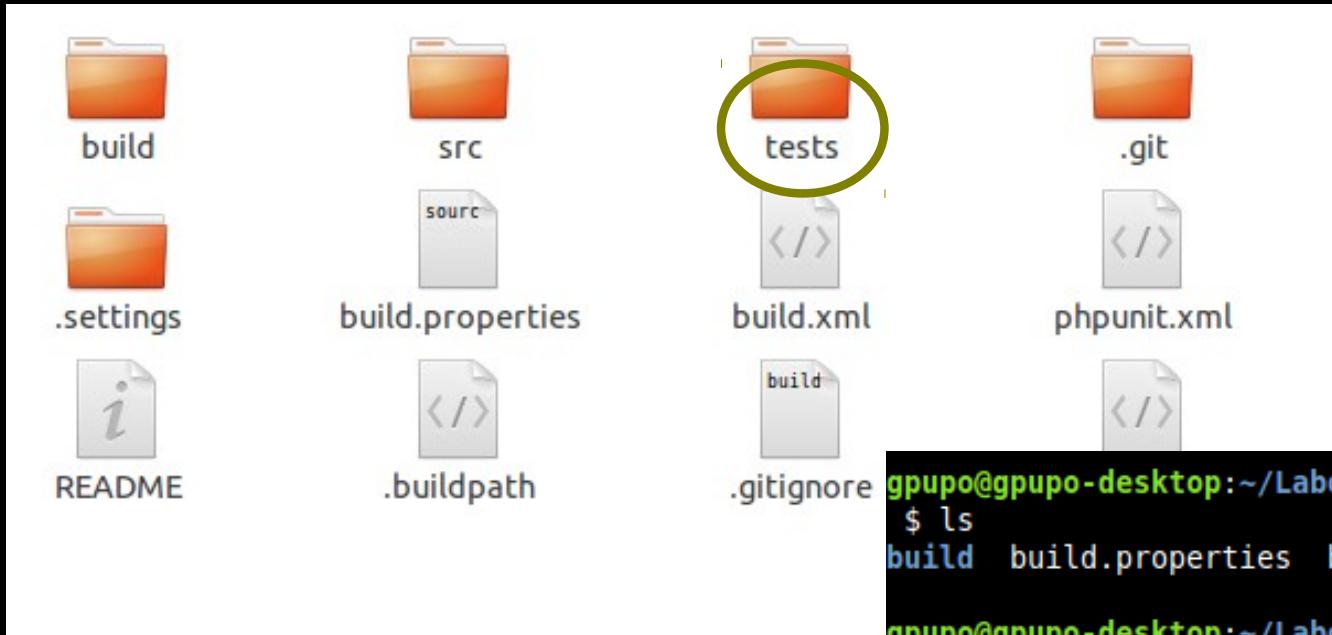


Estrutura atual



```
gpupo@gpupo-desktop:~/Laboratorio/Jenkins/object-freezer - 19:45:44
$ ls
build build.properties build.xml phpunit.xml README src tests

gpupo@gpupo-desktop:~/Laboratorio/Jenkins/object-freezer - 19:49:15
$ ls tests/
application bootstrap.php library phpunit.xml
```



Estrutura atual

```
<?php

// Define path to application directory
defined('APPLICATION_PATH')
    || define('APPLICATION_PATH', realpath(dirname(__FILE__) . '/../src/application'));

// Define application environment
defined('APPLICATION_ENV')
    || define('APPLICATION_ENV', (getenv('APPLICATION_ENV') ? getenv('APPLICATION_ENV') : 'testing'));

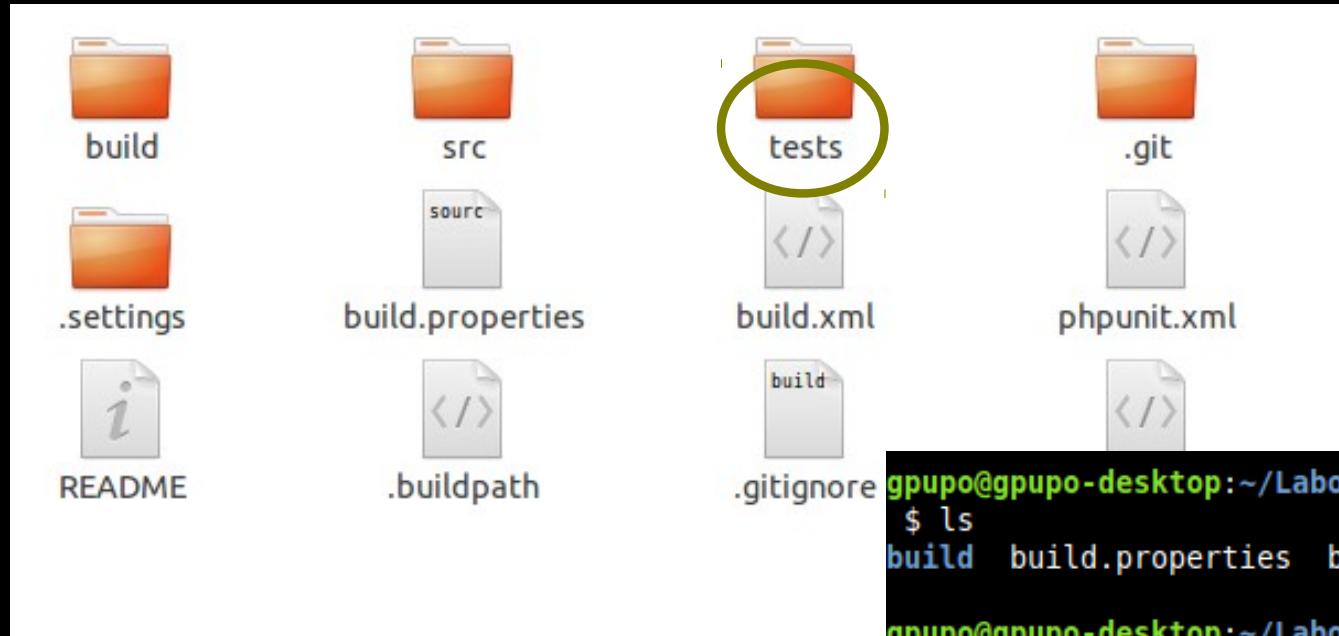
// Ensure library/ is on include_path
set_include_path(implode(PATH_SEPARATOR, array(
    realpath(APPLICATION_PATH . '/../src/library'),
    get_include_path(),
)));

require_once 'Zend/Loader/Autoloader.php';
Zend_Loader_Autoloader::getInstance();
```

```
gpupo@gpupo-desktop:~/Laboratorio/Jenkins/object-freezer - 19:45:44
$ ls
build build.properties build.xml phpunit.xml README src tests

gpupo@gpupo-desktop:~/Laboratorio/Jenkins/object-freezer - 19:49:15
$ ls tests/
application bootstrap.php library phpunit.xml
```





Bootstrap de testes Refatorado

```
<?php

// Define path to application directory
defined('APPLICATION_PATH')
    || define('APPLICATION_PATH', realpath(dirname(__FILE__) . '/../src/application'));

// Define application environment
defined('APPLICATION_ENV')
    || define('APPLICATION_ENV', (getenv('APPLICATION_ENV') ? getenv('APPLICATION_ENV') : 'testing'));

// Ensure library/ is on include_path
set_include_path(implode(PATH_SEPARATOR, array(
    realpath(APPLICATION_PATH . '/../src/library'),
    get_include_path(),
)));

require_once 'Zend/Loader/Autoloader.php';
Zend_Loader_Autoloader::getInstance();
```

Rodando testes

```
$ ~/workspace/object-freezer$ phpunit  
PHPUnit 3.5.14 by Sebastian Bergmann.
```

.

Time: 0 seconds, Memory: 6.50Mb

OK (1 test, 4 assertions)

PHPUnit

Para ter o código auto-testável você necessitará de uma suite de testes automatizados que possa checar uma grande parte da base do código para achar problemas. Os testes necessitam estar aptos para rodarem com um simples comando e serem checados automaticamente.





Jenkins

“In a nutshell Jenkins CI is the leading open-source continuous integration server. Built with Java, it provides over 300 plugins to support building and testing virtually any project.”





Jenkins

“In a nutshell Jenkins CI is the leading open-source continuous integration server. Built with Java, it provides over 300 plugins to support building and testing virtually any project.”

www.delicious.com/gpupo/jenkins





Jenkins on Ubuntu

```
$ wget -q -O - \
http://pkg.jenkins-ci.org/debian/jenkins-ci.org.key \
| sudo apt-key add - ;  
  
$ sudo sh -c \
'echo deb http://pkg.jenkins-ci.org/debian binary/ > \
/etc/apt/sources.list.d/jenkins.list';  
  
sudo apt-get update  
sudo apt-get install jenkins ant
```



Jenkins on Ubuntu

...

Setting up daemon (0.6.4-1) ...

Setting up jenkins (1.420) ...

Adding system user `jenkins` (UID 125) ...

Adding new user `jenkins` (UID 125) with group `nogroup` ...

Not creating home directory `/var/lib/jenkins`.

** Starting Jenkins Continuous Integration Server jenkins
The selected http port (**8080**) seems to be in use by
another program*

Please select another port to use for jenkins





Jenkins on Ubuntu

- `Http://localhost:8080`
- `http://localhost:8080/manage`
- `http://localhost:8080/pluginManager/available`





Jenkins on Ubuntu

- ```
$ sudo /etc/init.d/jenkins
{
 start|stop|status|restart|force-reload
}
```





# Jenkins CLI



- `java -jar jenkins-cli.jar -s \ http://localhost:8080/ help`





# Jenkins CLI



**build**: Builds a job, and optionally waits until its completion.

- **copy-job**: Copies a job
- **create-job**: Creates a new job by reading stdin as a configuration XML file
- **enable-job**: Enables a job
- **help**: Lists all the available commands
- **install-plugin**: Installs a plugin either from a file, an URL, or from update center
- **login**: Saves the current credential to allow future commands to run without explicit credential information
- **mail**: Reads stdin and sends that out as an e-mail.





# Instalando plugins

- wget http://localhost:8080/jnlpJars/**jenkins-cli.jar**
- java -jar **jenkins-cli.jar** -s http://localhost:8080 install-plugin checkstyle
- java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin cloverphp
- java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin dry
- java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin htmlpublisher
- java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin jdepend
- java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin git
- java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin github



# Jenkins on Ubuntu

```
java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin
plot
```

```
java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin
pmd
```

```
java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin
violations
```

```
java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin
xunit
```





# Instalando plugins

ou

```
$ plugins=(cloverphp dry htmlpublisher jdepend plot \
pmd violations xunit git github);

$ for name in "${plugins[@]}"; \
do java -jar jenkins-cli.jar -s \
http://localhost:8080 install-plugin $name; \
done;
```

Script disponivel em  
<https://gist.github.com/1078415>

Integração contínua @gpupo



# Reload

- `$ sudo /etc/init.d/jenkins restart`





# Segurança

- <http://localhost:8080/configure>
  - Enable security
    - Jenkins's own user database
    - **Save**





# Segurança

- <http://localhost:8080/configure>
  - Enable security
    - Jenkins's own user database
    - Save
    - **Sign UP**
    - Config >> Logged-in users can do anything





# Jenkins Alerts

- Configurar envio de e-mail autenticado

**E-mail Notification**

|                                                             |                          |
|-------------------------------------------------------------|--------------------------|
| SMTP server                                                 | mail.hotellinux.com      |
| Default user e-mail suffix                                  |                          |
| System Admin E-mail Address                                 | jenkins@hotellinux.com   |
| <input checked="" type="checkbox"/> Use SMTP Authentication |                          |
| User Name                                                   | jenkins@hotellinux.com   |
| Password                                                    | *****                    |
| Use SSL                                                     | <input type="checkbox"/> |
| SMTP Port                                                   | mail.hotellinux.com      |
| Charset                                                     | UTF-8                    |

**Test config**

[Back to Project](#)[Status](#)[Changes](#)[Console Output](#)[Configure](#)[Git Build Data](#)[PMD Warnings](#)[Checkstyle Warnings](#)[Test Result](#)[Clover Summary Report](#)[Violations](#)[JDepend](#)[API Documentation](#)[Code Browser](#)[Code Coverage](#)[Previous Build](#)

## Build #2 (Jan 30, 2011 3:47:40 PM)

[Delete this build](#)

Started 12 min ago

Took 8.8 sec

[Add description](#)

No changes.

Started by user [anonymous](#)**Revision:** 19195d05a1b7f62ac77f78695abc67859e08010a

- origin/master



Duplicate Code: 0 warnings from one analysis file.

- No warnings since build 1.
- New zero warnings highscore: no warnings since yesterday!

PMD: [7 warnings](#) from one PMD file.Checkstyle: [2 warnings](#) from one Checkstyle file.[Test Result](#) (no failures)

Clover Code Coverage - 100% method 37/37, conditional 0/0, statement 364/364.



!



[Back to Project](#) [Status](#) [Changes](#) [Console Output](#) [Configure](#) [Git Build Data](#) [PMD Warnings](#) [Checkstyle Warnings](#) [Test Result](#) [Clover Summary Report](#) [Violations](#) [JDepend](#) [API Documentation](#) [Code Browser](#) [Code Coverage](#) [Previous Build](#)

## CheckStyle Result

### Warnings Trend

| All Warnings | New Warnings | Fixed Warnings |
|--------------|--------------|----------------|
| 2            | 0            | 0              |

### Summary

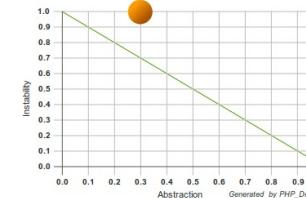
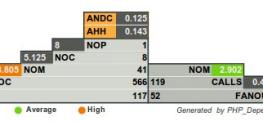
| Total | High Priority | Normal Priority | Low Priority |
|-------|---------------|-----------------|--------------|
| 2     | 0             | 2               | 0            |

### Details

| Categories                                                                                 | Types | Warnings | Details |
|--------------------------------------------------------------------------------------------|-------|----------|---------|
| <b>CouchDB.php:218, NotSameWarning, Priority: Normal</b>                                   |       |          |         |
| Equals sign not aligned with surrounding assignments; expected 26 spaces but found 1 space |       |          |         |
| No description available. Please upgrade to latest checkstyle version.                     |       |          |         |
| <b>CouchDB.php:248, Discouraged, Priority: Normal</b>                                      |       |          |         |
| Silencing errors is discouraged                                                            |       |          |         |
| No description available. Please upgrade to latest checkstyle version.                     |       |          |         |

- [Back to Dashboard](#)
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- [API Documentation](#)
- [Code Browser](#)
- [Code Coverage](#)
- [Git Polling Log](#)

## Project object-freezer



| Build History (trend) |                         |
|-----------------------|-------------------------|
| #2                    | Jan 30, 2011 3:47:40 PM |
| #1                    | Jan 30, 2011 3:47:23 PM |

[for all](#) [for failures](#)

Coverage Report

API Documentation

Code Browser

Code Coverage

Workspace

Recent Changes

Latest Test Result (no failures)

### Permalinks

- Last build (#2), 9 min 11 sec ago
- Last stable build (#2), 9 min 11 sec ago
- Last successful build (#2), 9 min 11 sec ago

### Duplicate Code Trend



[edit description](#)  
[Disable Project](#)

### PMD Trend



### Checkstyle Trend

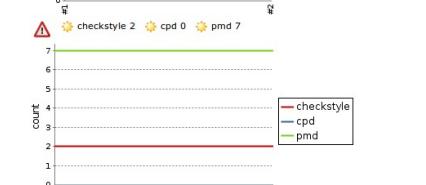


### Test Result Trend



**Code Coverage - 100% (401/401 elements)**

Methods 100%   Conditionals 100%   Statements 100%



[!\[\]\(fe8db1a597a66b39d2483e5f97fadb89\_img.jpg\) New Job](#)[!\[\]\(65c251884e01fe33ff8284b338defbf8\_img.jpg\) Manage Hudson](#)[!\[\]\(de079074604a6c7b2d6f6758a7569c2d\_img.jpg\) People](#)[!\[\]\(142a8fb92ef5aafd8c2d3f7fb4ca7f9d\_img.jpg\) Build History](#)**Build Queue**

No builds in the queue.

**Build Executor Status**

| # | Status |
|---|--------|
| 1 | Idle   |
| 2 | Idle   |

Job name  **Build a free-style software project**

This is the central feature of Hudson. Hudson will build your project, combining any SCM with any build system, and this can be even used for something other than software build.

 **Build a maven2/3 project**

Build a maven2 project. Hudson takes advantage of your POM files and drastically reduces the configuration.

 **Build multi-configuration project**

Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

 **Monitor an external job**

This type of job allows you to record the execution of a process run outside Hudson, even on a remote machine. This is designed so that you can use Hudson as a dashboard of your existing automation system. See [the documentation for more details](#).

 **Copy existing job**

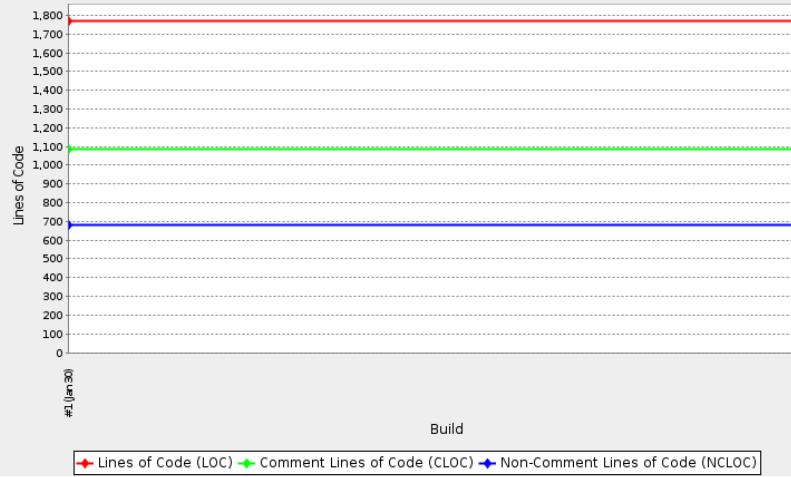
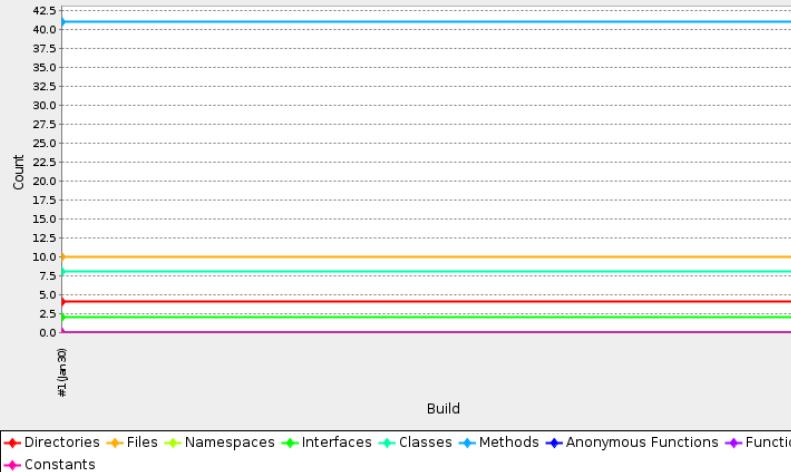
Copy from

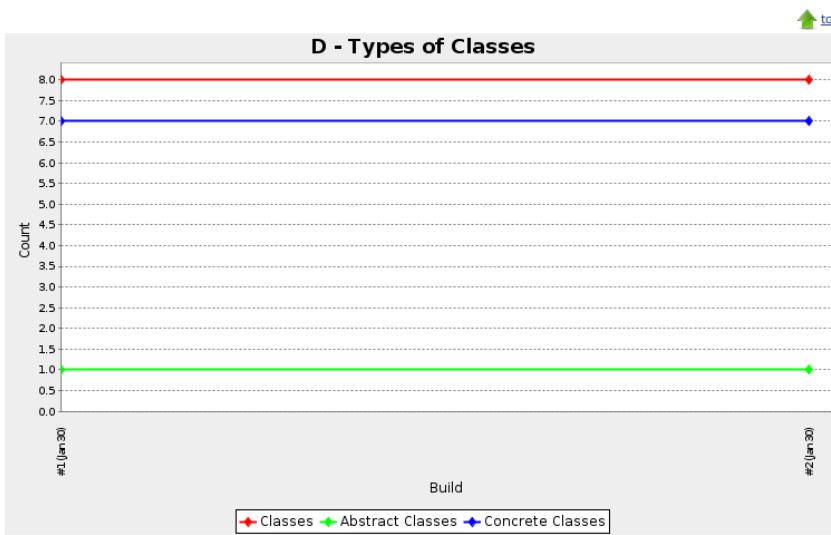
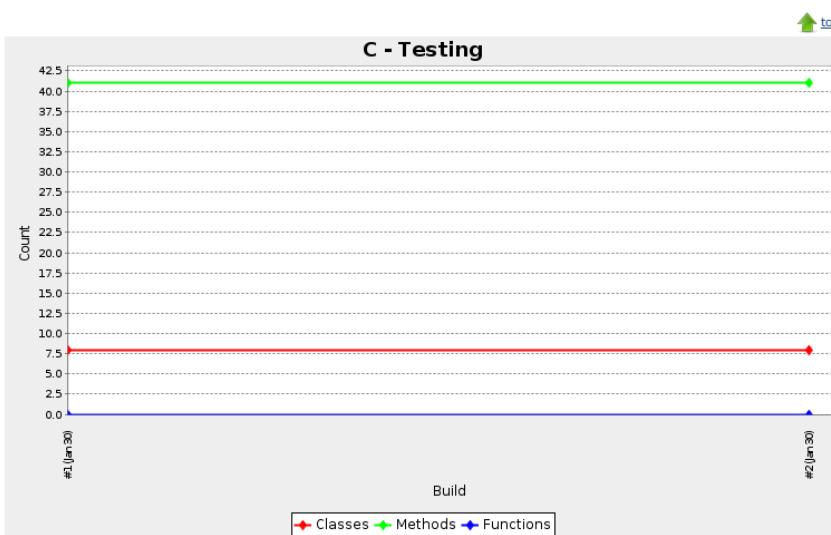
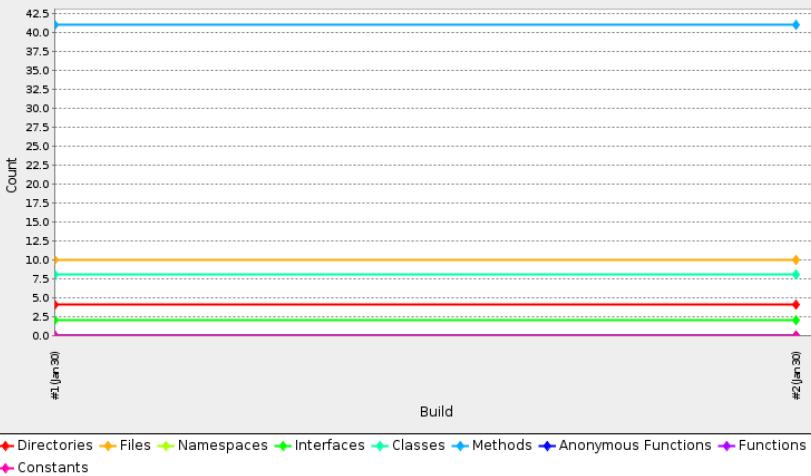


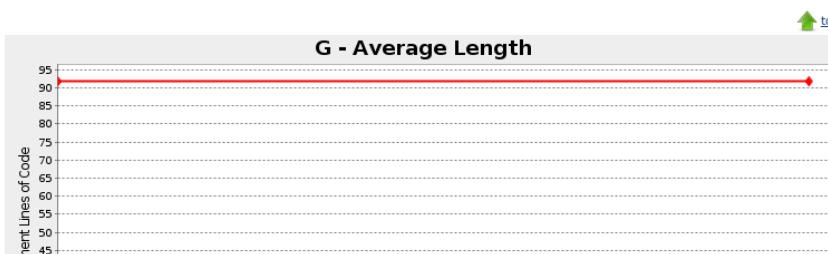
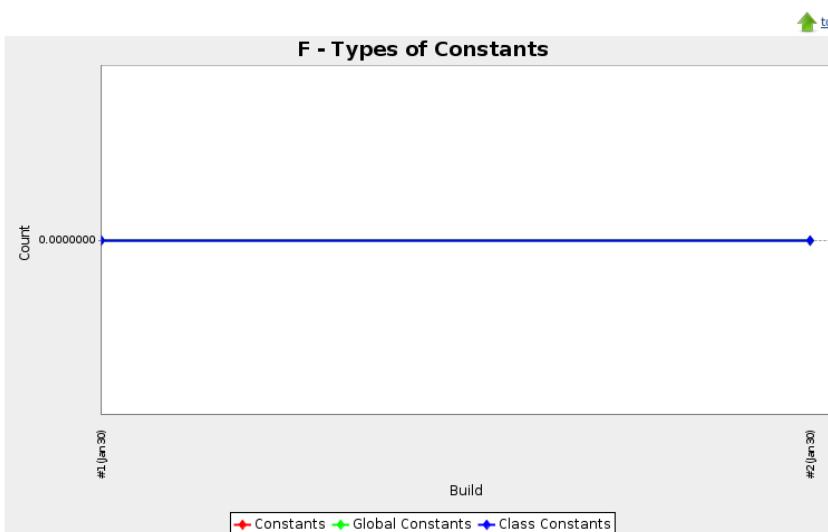
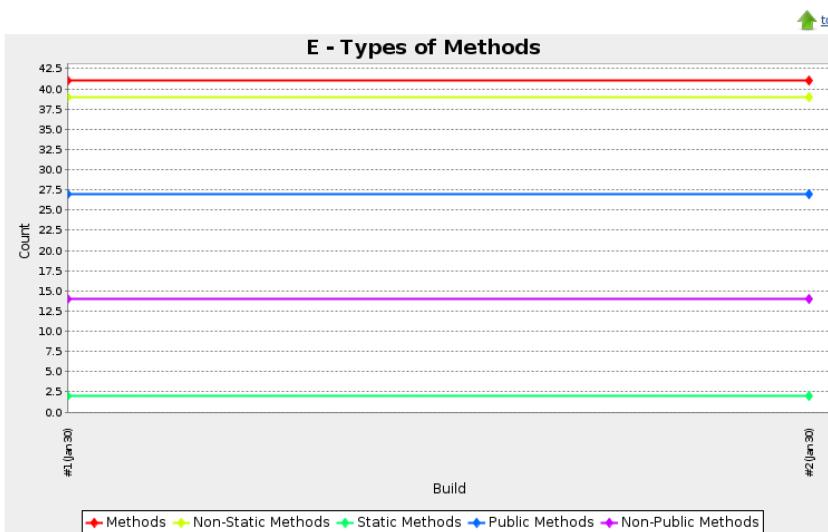
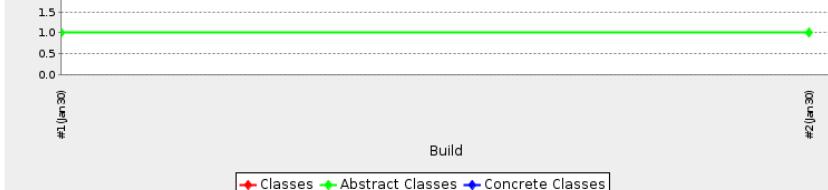
[Back to Dashboard](#)[Status](#)[Changes](#)[Workspace](#)[Build Now](#)[Delete Project](#)[Configure](#)[Github](#)[PMD Warnings](#)[Checkstyle Warnings](#)[Coverage Report](#)[Violations](#)[Plots](#)[API Documentation](#)[Code Browser](#)[Code Coverage](#)[Git Polling Log](#)**Build History (trend)**

#2 Jan 30, 2011 3:47:40 PM

#1 Jan 30, 2011 3:47:23 PM

[for all](#) [for failures](#)**phloc**Jump to [Plot 1: A - Lines of code](#)[top](#)**A - Lines of code****B - Structures****C - Testing**





# Installing Plugins/Upgrades

## Preparation

- Checking internet connectivity
- Checking update center connectivity
- Success

## Git Plugin



Success

## Github Plugin



Installing



## Git Plugin



Pending



**Restart Jenkins when installation is complete and no jobs are running**

# TODO

(right now)

Instalar:

*Jenkins*

*Plugins Jenkins (+GIT)*

*PHP Tools*



# Jenkins + PHP

- `$ sudo pear channel-discover pear.pdepend.org`
- `$ sudo pear channel-discover pear.phpmd.org`
- `$ sudo pear channel-discover pear.phpunit.de`
- `$ sudo pear channel-discover components.ez.no`
- `$ sudo pear channel-discover pear.symfony-project.com`





# Jenkins + PHP

- `$ sudo pear install pdepend/PHP_Depend`
- `$ sudo pear install phpmd/PHP_PMD`
- `$ sudo pear install phpunit/phpcpd`
- `$ sudo pear install phpunit/phploc`





# Jenkins + PHP

- `$ sudo pear install PHPDocumentor`
- `$ sudo pear install PHP_CodeSniffer`
- `$ sudo pear install pear/Text_Highlighter-beta`
- `$ sudo pear install pear/HTTP_Request2-beta`
- `$ sudo pear install phpunit/phpunit`



# Jenkins + PHP

- `$ sudo pear install -alldeps \ phpunit/PHP_CodeBrowser`
- `$ sudo pear install -alldeps \ phpunit/PHPUnitear install PHPDocumentor`





# Jenkins template

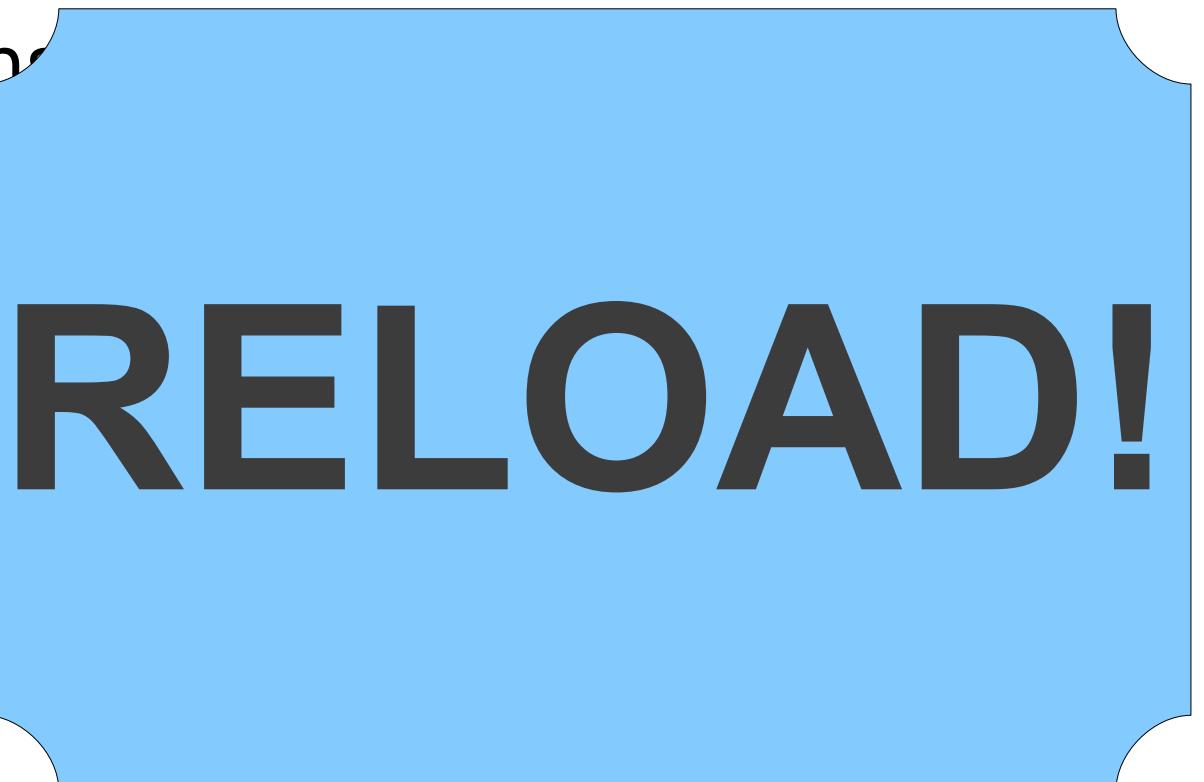
- `$ cd /var/lib/jenkins/jobs/`
- `$ sudo git clone \`  
`git://github.com/sebastianbergmann/php-jenkins-template.git php-template`
- `$ sudo chown -R jenkins:nogroup \`  
`php-template/`





# Jenkins + PHP

- \$ cd /var/lib/jenkins
- \$ git clone \<git://github.com/sebastianbergmann/php-template>
- \$sudo chown -R jenkins:jenkins /var/lib/jenkins/php-template/





O Pulo do Gato



# Jenkins + GIT

- \$ sudo su - jenkins
- \$ ssh-keygen -t rsa -C "jenkins@hotellinux.com"
- \$ git config --global user.email \  
"jenkins@hotellinux.com"
- \$ git config --global user.name "Jenkins Robot"





# Jenkins + GIT

- Adicionar Chave ao Repositório

The screenshot shows a GitHub repository page for 'gpupo / object-freezer'. The 'Deploy Keys' section is selected. A modal window titled 'Edit Your Key' is open, containing a 'Title' field with 'Jenkins' and a large 'Key' text area with a long ssh-rsa public key. The key text is as follows:

```
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQCpphw6ii2pbVrW3wCEOKU0DaBo4dQQStfwPzvN6ytpm/mw3iBMBAT9AP/E4rWlg1I2Ly88MldiKa2eIRINYuQn0cJN5COYCVnNPWW61se48OFOnaBiKluMwp9AYPSilthdIVk/RXXdupqDp6+rBavakIK4jDNPV7oJvVs3Q+0Qk/WT1yW3HY0WI8nJzgKeLH2UBLAjp3muRTdu1jeDAlyHLFYA+mLzEN1DEowGICSSIONI7ITkvTHv0INPaztMwOwAbuwdEnOYCVlqzTI DAcvv
```

The GitHub interface includes navigation links like 'Explore GitHub', 'Gist', 'Blog', 'Help', and 'Search...'. A note on the right explains that deploy keys give servers access to a single repo and must be unique. The bottom of the page features a footer with links to 'Blog', 'About', 'Contact & Support', 'Training', and copyright information for 2011 GitHub Inc.

Integração contínua @gpupo



# Jenkins + GIT

- Adicionar Chave ao Repositório
- \$ ssh git@github.com

The screenshot shows a GitHub repository page for 'gpupo / object-freezer'. A modal window titled 'Edit Your Key' is open. In the 'Title' field, 'Jenkins' is typed. The 'Key' field contains an SSH public key:

```
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQCphqw6li2pbVrW3wCEOKU0DaBo4dQQSttwPzvN6ytpm/mw3iBMBAT9AP/E4rWlg12Ly88MldiKa2elRINYuQn0cJNSCOYCVnNPWW61se48OFOnaBiKluMwp9AYPSlithdVk/RXXdupqDp6+rBavakIK4jDNPV7oJVs3Q+0Qk/WT1YW3HY0Wl8nJzgKeLH2UBLAJp3muRTdu1jeDALyHLFYA+mLzAN105.../21/2011 7:11:40 PM/Mon May 10 2011 07:11:40 V1.0.1 TI D...
```

At the bottom right of the modal is a 'Save Changes' button. The GitHub footer includes links for Blog, About, Contact & Support, Training, and a copyright notice for 2011 GitHub Inc. All rights reserved.

Integração contínua @gpupo

```
jenkins@gpupo-desktop:~$ ssh git@github.com
The authenticity of host 'github.com (207.97.227.239)' can't be established.
RSA key fingerprint is 16:27:ac:a5:76:28:2d:36:63:1b:56:4d:eb:df:a6:48.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'github.com,207.97.227.239' (RSA) to the list of known hosts.
Permission denied (publickey).
```

```
jenkins@gpupo-desktop:~/ssh$ ssh-key -t rsa -C "jenkins@hotellinux.com"
ssh-key: command not found
jenkins@gpupo-desktop:~/ssh$ ssh-keygen -t rsa -C "jenkins@hotellinux.com"
Generating public/private rsa key pair.
Enter file in which to save the key (/var/lib/jenkins/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /var/lib/jenkins/.ssh/id_rsa.
Your public key has been saved in /var/lib/jenkins/.ssh/id_rsa.pub.
The key fingerprint is:
fb:e4:f6:ea:ac:f8:15:e6:59:9b:f2:18:22:73:c3:4d jenkins@hotellinux.com
The key's randomart image is:
+--[RSA 2048]----+
| |
| |
| |
| |
| S E . |
| . * + 0 |
| o * 0 o |
| = 0.= |
| ..o+Boo |
+jenkins@gpupo-desktop:~/ssh$ ssh git@github.com
```

```
jenkins@gpupo-desktop:~$ ssh git@github.com
The authenticity of host 'github.com (207.97.227.239)' can't be established.
RSA key fingerprint is 16:27:ac:a5:76:28:2d:36:63:1b:56:4d:eb:df:a6:48.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'github.com,207.97.227.239' (RSA) to the list of known hosts.
Permission denied (publickey).
```

```
jenkins@gpupo-desktop:~/ssh$ ssh-key -t rsa -C "jenkins@hotellinux.com"
ssh-key: command not found
jenkins@gpupo-desktop:~/ssh$ ssh-keygen -t rsa -C "jenkins@hotellinux.com"
Generating public/private rsa key pair.
Enter file in which to save the key (/var/lib/jen...): Em branco!
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /var/lib/jen.../.ssh/id_rsa.
Your public key has been saved in /var/lib/jenkins/.ssh/id_rsa.pub.
The key fingerprint is:
fb:e4:f6:ea:ac:f8:15:e6:59:9b:f2:18:22:73:c3:4d jenkins@hotellinux.com
The key's randomart image is:
+-- [RSA 2048]----+
| |
| |
| |
| |
| S E . |
| . * + 0 |
| o * 0 o |
| = 0.= |
| ..o+Boo |
+jenkins@gpupo-desktop:~/ssh$ ssh git@github.com
```



# Jenkins + GIT

- \$ sudo su - jenkins
- \$ ssh-keygen -t rsa -C "jenkins@hotellinux.com"
- \$ git config --global user.email \  
"jenkins@hotellinux.com"
- \$ git config --global user.name "Jenkins Robot"





# Template for Jenkins Jobs for PHP Projects

- **Adivinha  
de quem  
é o  
projeto?**





# Template for Jenkins Jobs for PHP Projects

## Sebastian Bergmann

[sb@sebastian-bergmann.de](mailto:sb@sebastian-bergmann.de)

[http://twitter.com/s\\_bergmann](http://twitter.com/s_bergmann)

Siegburg, Germany

*Creator of PHPUnit, PHP Testing Evangelist*

### Areas of Expertise:

- PHP
  - PHPUnit
  - Jenkins
  - Testing
  - Continuous Integration
- consulting
  - speaking
  - programming
  - training
  - writing

BIOGRAPHY **BOOKS** ARTICLES



**Integrate Your PHP Project with Jenkins**  
by Sebastian Bergmann  
July 2011  
Print: \$19.99



**PHPUnit Pocket Guide**  
by Sebastian Bergmann  
September 2005  
Print: \$9.95  
Ebook: \$7.99

- **Adivinha  
de quem  
é o  
projeto?**

Integração contínua @gpupo



# Criando um job PHP no Jenkins

- Nome do projeto exemplo: "Object-Freezer".
- Selecione "Copy existing job" e escreva "php-template" no campo "Copy from".
- Substitua as duas ocorrencias de "job-name" pelo nome do projeto, no campo "Description".
- Desabilite a opcao "Disable Build".
- Preencha as informacoes do repositorio GIT.
- Configure o "Build Trigger" como "Poll SCM".



# Criando um job PHP no Jenkins

Project name

Description  
`<embed height="300" src="http://localhost:8080/job/object-freezer/ws/build/pdepend/overview-pyramid.svg" type="image/svg+xml" width="500"></embed>  
<embed height="300" src="http://localhost:8080/job/object-freezer/ws/build/pdepend/dependencies.svg" type="image/svg+xml" width="500"></embed>`

Discard Old Builds

This build is parameterized

Github project

Disable Build (No new builds will be executed until the project is re-enabled.)

Execute concurrent builds if necessary (beta)

**Advanced Project Options**

**Source Code Management**

None

Git

Repositories URL of repository



Integração contínua @gpupo



# Criando um job PHP no Jenkins

## Build Triggers

- Build after other projects are built
- Poll SCM

## Schedule

\*/ \* \* \* \*

- Build periodically

## Build Environment

-  Automatically record and report Code Coverage using [Clover](#). Currently for Ant builds only.





# Jenkins alerts

| Subject                                             | From                     |
|-----------------------------------------------------|--------------------------|
| Jenkins build is back to normal: object-freezer #42 | • jenkins@hotellinux.com |
| Build failed in Jenkins: object-freezer #41         | • jenkins@hotellinux.com |
| Build failed in Jenkins: object-freezer #40         | • jenkins@hotellinux.com |



Integração contínua @gpupo

from jenkins@hotellinux.com★

subject Build failed in Jenkins: object-freezer #39

to gip25@hotellinux.com★

See <http://localhost:8080/job/object-freezer/39/>

---

```
Started by user gpupo
Checkout:workspace / <http://localhost:8080/job/object-freezer/ws/> - hudson.remoting.LocalChannel@3f757322
Using strategy: Default
Last Built Revision: Revision ef708a1219918850eede3cb54fcfa5985f5eeda3 (origin/zend)
Checkout:workspace / <http://localhost:8080/job/object-freezer/ws/> - hudson.remoting.LocalChannel@3f757322
Fetching changes from the remote Git repository
Fetching upstream changes from git@github.com:gpupo/object-freezer.git
Commencing build of Revision ef708a1219918850eede3cb54fcfa5985f5eeda3 (origin/zend)
Checking out Revision ef708a1219918850eede3cb54fcfa5985f5eeda3 (origin/zend)
[workspace] $ ant build
Buildfile: <http://localhost:8080/job/object-freezer/ws/build.xml>
```

```
clean:
[delete] Deleting directory <http://localhost:8080/job/object-freezer/ws/build/api>
[delete] Deleting directory <http://localhost:8080/job/object-freezer/ws/build/code-browser>
[delete] Deleting directory <http://localhost:8080/job/object-freezer/ws/build/coverage>
[delete] Deleting directory <http://localhost:8080/job/object-freezer/ws/build/logs>
[delete] Deleting directory <http://localhost:8080/job/object-freezer/ws/build/pdepend>
[mkdir] Created dir: <http://localhost:8080/job/object-freezer/ws/build/api>
[mkdir] Created dir: <http://localhost:8080/job/object-freezer/ws/build/code-browser>
[mkdir] Created dir: <http://localhost:8080/job/object-freezer/ws/build/coverage>
[mkdir] Created dir: <http://localhost:8080/job/object-freezer/ws/build/logs>
[mkdir] Created dir: <http://localhost:8080/job/object-freezer/ws/build/pdepend>
```

from jenkins@hotellinux.com★

subject Build failed in Jenkins: object-freezer #39

to gip25@hotellinux.com★

See <http://localhost:8080/job/object-freezer/39/>

-----  
Started by user gpupo  
Checkout:workspace / <<http://localhost:8080/job/object-freezer/ws/>> - hudson.remoting.LocalChannel@3f757322  
Using strategy: Default  
Last Built Revision: Revision ef708a1219918850eede3cb54fcfa5985f5eeda3 (origin/zend)  
Checkout:workspace / <<http://localhost:8080/job/object-freezer/ws/>> - hudson.remoting.LocalChannel@3f757322  
Fetching changes from the remote Git repository  
Fetching upstream changes from <git@github.com:gpupo/object-freezer.git>  
Commencing build of Revision ef708a1219918850eede3cb54fcfa5985f5eeda3 (origin/zend)  
Checking out Revision ef708a1219918850eede3cb54fcfa5985f5eeda3 (origin/zend)  
[workspace] \$ ant build  
Buildfile: <<http://localhost:8080/job/object-freezer/ws/build.xml>>  
  
clean:  
[delete] Deleting directory <<http://localhost:8080/job/object-freezer/ws/build/api>>  
[delete] Deleting directory <<http://localhost:8080/job/object-freezer/ws/build/code-browser>>  
[delete] Deleting directory <<http://localhost:8080/job/object-freezer/ws/build/coverage>>  
[delete] Deleting directory <<http://localhost:8080/job/object-freezer/ws/build/logs>>  
[delete] Deleting directory <<http://localhost:8080/job/object-freezer/ws/build/pdepend>>  
[mkdir] Created dir: <<http://localhost:8080/job/object-freezer/ws/build/api>>  
[mkdir] Created dir: <<http://localhost:8080/job/object-freezer/ws/build/code-browser>>  
[mkdir] Created dir: <<http://localhost:8080/job/object-freezer/ws/build/coverage>>  
[mkdir] Created dir: <<http://localhost:8080/job/object-freezer/ws/build/logs>>  
[mkdir] Created dir: <<http://localhost:8080/job/object-freezer/ws/build/pdepend>>

```
PHPUnit:
[exec] PHPUnit 3.5.13 by Sebastian Bergmann.
[exec]
[exec] .F
[exec]
[exec] Time: 1 second, Memory: 15.75Mb
[exec]
[exec] There was 1 failure:
[exec]
[exec] 1) IndexControllerTest::testCanDoUnitTest
[exec] Failed asserting that <boolean:false> is true.
[exec]
[exec] <http://localhost:8080/job/object-freezer/ws/tests/application/controllers/IndexControllerTest.php>:30
[exec]
[exec] FAILURES!
[exec] Tests: 2, Assertions: 5, Failures: 1.
[exec]
[exec] Writing code coverage data to XML file, this may take a moment.
[exec]
[exec] Generating code coverage report, this may take a moment.
```

BUILD FAILED

<http://localhost:8080/job/object-freezer/ws/build.xml>:22: exec returned: 1

```
Total time: 2 seconds
Build step 'Invoke Ant' marked build as failure
[CHECKSTYLE] Collecting checkstyle analysis files...
CHECKSTYLESuccessfully parsed file <http://localhost:8080/job/object-freezer/ws/build/logs/checkstyle.xml> of module with 0 warnings.
[PMD] Collecting PMD analysis files...
PMDSuccessfully parsed file <http://localhost:8080/job/object-freezer/ws/build/logs/pmd.xml> of module with 0 warnings.
[DRY] Collecting duplicate code analysis files...
DRYSuccessfully parsed file <http://localhost:8080/job/object-freezer/ws/build/logs/pmd-cpd.xml> of module with 0 warnings.
Recording plot data
Publishing Clover coverage report...
Publishing Clover HTML report...
Publishing Clover XML report...
Publishing Clover coverage results...
[htmlpublisher] Archiving HTML reports...
[htmlpublisher] Archiving at BUILD level <http://localhost:8080/job/object-freezer/ws/build/api> to /var/lib/jenkins/jobs/object-freezer/builds/2011-07-08_12-31-21/htmlreports/API_Documentation
[htmlpublisher] Archiving at BUILD level <http://localhost:8080/job/object-freezer/ws/build/code-browser> to /var/lib/jenkins/jobs/object-freezer/builds/2011-07-08_12-31-21/htmlreports/Code_Browser
ERROR: Directory '<http://localhost:8080/job/object-freezer/ws/build/code-browser>' exists but failed copying to '/var/lib/jenkins/jobs/object-freezer/builds/2011-07-08_12-31-21/htmlreports/Code_Browser'.
[xUnit] [INFO] - Starting to record.
[xUnit] [INFO] - Processing PHPUnit-3.4 (default)
[xUnit] [INFO] - [PHPUnit-3.4 (default)] - 1 test report file(s) were found with the pattern 'build/logs/junit.xml' relative to 'http://localhost:8080/job/object-freezer/ws/' for the testing framework 'PHPUnit-3.4 (default)'.
[xUnit] [INFO] - Stopping recording.
[JDepend] JDepend plugin is ready
[JDepend] Found 0 classes in 0 packages
```

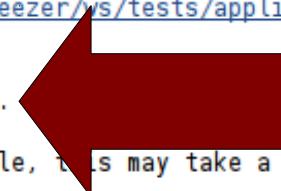
```
phpunit:
[exec] PHPUnit 3.5.13 by Sebastian Bergmann.
[exec]
[exec] .F
[exec]
[exec] Time: 1 second, Memory: 15.75Mb
[exec]
[exec] There was 1 failure:
[exec]
[exec] 1) IndexControllerTest::testCanDoUnitTest
[exec] Failed asserting that <boolean:false> is true.
[exec]
[exec] <http://localhost:8080/job/object-freezer/ws/test> controllers/IndexControllerTest.php:30
[exec]
[exec] FAILURES!
[exec] Tests: 2, Assertions: 5, Failures: 1.
[exec]
[exec] Writing code coverage data to XML file, this may take a moment.
[exec]
[exec] Generating code coverage report, this may take a moment.
```

BUILD FAILED

<http://localhost:8080/job/object-freezer/ws/build.xml>:22: exec returned: 1

```
Total time: 2 seconds
Build step 'Invoke Ant' marked build as failure
[CHECKSTYLE] Collecting checkstyle analysis files...
CHECKSTYLESuccessfully parsed file <http://localhost:8080/job/object-freezer/ws/build/logs/checkstyle.xml> of module with 0 warnings.
[PMD] Collecting PMD analysis files...
PMDSuccessfully parsed file <http://localhost:8080/job/object-freezer/ws/build/logs/pmd.xml> of module with 0 warnings.
[DRY] Collecting duplicate code analysis files...
DRYSuccessfully parsed file <http://localhost:8080/job/object-freezer/ws/build/logs/pmd-cpd.xml> of module with 0 warnings.
Recording plot data
Publishing Clover coverage report...
Publishing Clover HTML report...
Publishing Clover XML report...
Publishing Clover coverage results...
[htmfpublisher] Archiving HTML reports...
[htmfpublisher] Archiving at BUILD level <http://localhost:8080/job/object-freezer/ws/build/api> to /var/lib/jenkins/jobs/object-freezer/builds/2011-07-08_12-31-21/htmlreports/API_Documentation
[htmfpublisher] Archiving at BUILD level <http://localhost:8080/job/object-freezer/ws/build/code-browser> to /var/lib/jenkins/jobs/object-freezer/builds/2011-07-08_12-31-21/htmlreports/Code_Browser
ERROR: Directory '<http://localhost:8080/job/object-freezer/ws/build/code-browser>' exists but failed copying to '/var/lib/jenkins/jobs/object-freezer/builds/2011-07-08_12-31-21/htmlreports/Code_Browser'.
[xUnit] [INFO] - Starting to record.
[xUnit] [INFO] - Processing PHPUnit-3.4 (default)
[xUnit] [INFO] - [PHPUnit-3.4 (default)] - 1 test report file(s) were found with the pattern 'build/logs/junit.xml' relative to 'http://localhost:8080/job/object-freezer/ws/' for the testing framework 'PHPUnit-3.4 (default)'.
[xUnit] [INFO] - Stopping recording.
[JDepend] JDepend plugin is ready
[JDepend] Found 0 classes in 0 packages
```

```
phpunit:
[exec] PHPUnit 3.5.13 by Sebastian Bergmann.
[exec]
[exec] .F
[exec]
[exec] Time: 1 second, Memory: 15.75Mb
[exec]
[exec] There was 1 failure:
[exec]
[exec] 1) IndexControllerTest::testCanDoUnitTest
[exec] Failed asserting that <boolean:false> is true.
[exec]
[exec] <http://localhost:8080/job/object-freezer/ws/tests/application/controllers/IndexControllerTest.php>:30
[exec]
[exec] FAILURES!
[exec] Tests: 2, Assertions: 5, Failures: 1.
[exec]
[exec] Writing code coverage data to XML file, this may take a moment.
[exec]
[exec] Generating code coverage report, this may take a moment.
```



BUILD FAILED  
<http://localhost:8080/job/object-freezer/ws/build.xml>:22: exec returned: 1

```
Total time: 2 seconds
Build step 'Invoke Ant' marked build as failure
[CHECKSTYLE] Collecting checkstyle analysis files...
CHECKSTYLESuccessfully parsed file <http://localhost:8080/job/object-freezer/ws/build/logs/checkstyle.xml> of module with 0 warnings.
[PMD] Collecting PMD analysis files...
PMDSuccessfully parsed file <http://localhost:8080/job/object-freezer/ws/build/logs/pmd.xml> of module with 0 warnings.
[DRY] Collecting duplicate code analysis files...
DRYSuccessfully parsed file <http://localhost:8080/job/object-freezer/ws/build/logs/pmd-cpd.xml> of module with 0 warnings.
Recording plot data
Publishing Clover coverage report...
Publishing Clover HTML report...
Publishing Clover XML report...
Publishing Clover coverage results...
[htmlpublisher] Archiving HTML reports...
[htmlpublisher] Archiving at BUILD level <http://localhost:8080/job/object-freezer/ws/build/api> to /var/lib/jenkins/jobs/object-freezer/builds/2011-07-08_12-31-21/htmlreports/API_Documentation
[htmlpublisher] Archiving at BUILD level <http://localhost:8080/job/object-freezer/ws/build/code-browser> to /var/lib/jenkins/jobs/object-freezer/builds/2011-07-08_12-31-21/htmlreports/Code_Browser
ERROR: Directory '<http://localhost:8080/job/object-freezer/ws/build/code-browser>' exists but failed copying to '/var/lib/jenkins/jobs/object-freezer/builds/2011-07-08_12-31-21/htmlreports/Code_Browser'.
[xUnit] [INFO] - Starting to record.
[xUnit] [INFO] - Processing PHPUnit-3.4 (default)
[xUnit] [INFO] - [PHPUnit-3.4 (default)] - 1 test report file(s) were found with the pattern 'build/logs/junit.xml' relative to 'http://localhost:8080/job/object-freezer/ws/' for the testing framework 'PHPUnit-3.4 (default)'.
[xUnit] [INFO] - Stopping recording.
[JDepend] JDepend plugin is ready
[JDepend] Found 0 classes in 0 packages
```



# Jenkins alerts

from jenkins@hotellinux.com★

subject Jenkins build is back to normal : object-freezer #42

to gip25@hotellinux.com★

---

See [<http://localhost:8080/job/object-freezer/42/changes>](http://localhost:8080/job/object-freezer/42/changes)





# Jenkins jobs

**Jenkins**

search [?](#) [gpupo](#) | [log out](#)

[ENABLE AUTO REFRESH](#)

[New Job](#)  [add description](#)

[People](#)

[Build History](#)

[Manage Jenkins](#)

[My Views](#)

**Build Queue**  
No builds in the queue.

**Build Executor Status**

| # | Status |
|---|--------|
| 1 | Idle   |
| 2 | Idle   |

All [S](#) [W](#) [Job ↓](#) [Last Success](#) [Last Failure](#) [Last Duration](#)

| S | W | Job ↓                          | Last Success      | Last Failure      | Last Duration |
|---|---|--------------------------------|-------------------|-------------------|---------------|
|   |   | <a href="#">object-freezer</a> | 1 day 16 hr (#42) | 1 day 16 hr (#41) | 12 sec        |
|   |   | <a href="#">php-template</a>   | N/A               | N/A               | N/A           |

Icon: [S](#) [M](#) [L](#)

[Legend](#) [RSS for all](#) [RSS for failures](#) [RSS for just latest builds](#)

Integração contínua @gpupo

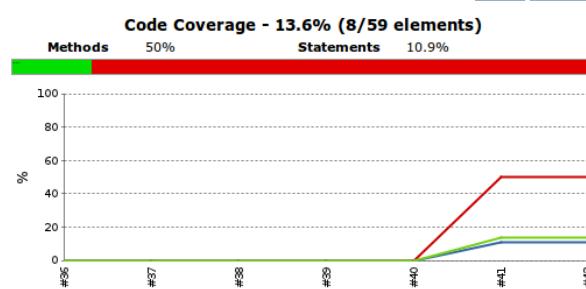
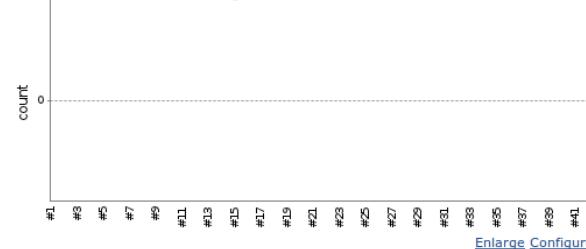
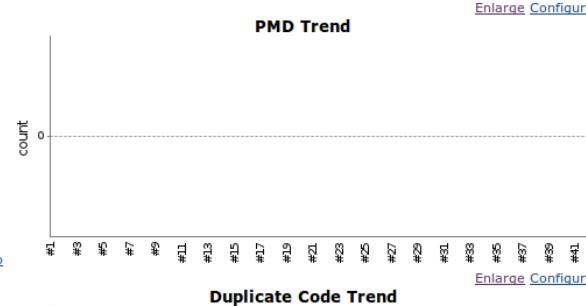
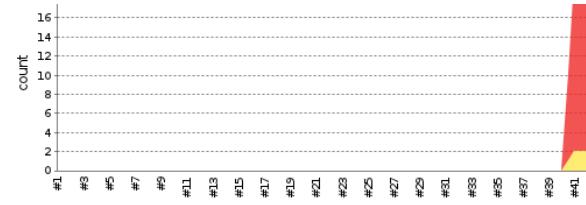


# Jenkins job

● #30 Jul 6, 2011 2:24:41 PM  
● #29 Jul 6, 2011 2:23:41 PM  
● #28 Jul 6, 2011 2:22:37 PM  
● #27 Jul 6, 2011 2:21:37 PM  
● #26 Jul 6, 2011 2:20:37 PM  
● #25 Jul 6, 2011 2:19:37 PM  
● #24 Jul 6, 2011 2:18:37 PM  
● #23 Jul 6, 2011 2:17:37 PM  
● #22 Jul 6, 2011 2:16:37 PM  
● #21 Jul 6, 2011 2:15:37 PM  
● #20 Jul 6, 2011 2:14:37 PM  
● #19 Jul 6, 2011 2:13:37 PM  
● #18 Jul 6, 2011 2:12:37 PM  
● #17 Jul 6, 2011 2:11:37 PM  
● #16 Jul 6, 2011 2:10:37 PM  
● #15 Jul 6, 2011 2:09:37 PM  
● #14 Jul 6, 2011 2:08:37 PM  
● #13 Jul 6, 2011 2:07:37 PM  
[More ...](#)  
[RSS for all](#) [RSS for failures](#)



- Permalinks**
- [Last build \(#42\), 1 day 16 hr ago](#)
  - [Last stable build \(#42\), 1 day 16 hr ago](#)
  - [Last successful build \(#42\), 1 day 16 hr ago](#)
  - [Last failed build \(#41\), 1 day 16 hr ago](#)
  - [Last unsuccessful build \(#41\), 1 day 16 hr ago](#)





# Job/documentação

[Back to object-freezer](#) [index](#) [Zip](#)

## default

**default**

*Description*

Class trees  
Index of elements

*Classes*

Bootstrap  
ErrorController  
IndexController

*Files*

Bootstrap.php  
error.phtml  
ErrorController.php  
index.php  
index.phtml  
IndexController.php

*phpDocumentor v 1.4.3*

## Class Bootstrap

**Description**

Located in [/application/Bootstrap.php](#) (line 3)

```
Zend_Application_Bootstrap_Bootstrap
|--Bootstrap
```

*Documentation generated on Sat, 09 Jul 2011 01:42:17 -0300 by phpDocumentor 1.4.3*



Integração contínua @gpupo



# Job/testes

S

search [? gpupo | log out](#)

[ENABLE AUTO REFRESH](#)

[object](#)

[Test Result](#)

1 failures ( $\pm 0$ )

2 tests ( $\pm 0$ )  
Took 0.17 sec.

[add description](#)

[output](#)

[information](#)

## All Failed Tests

| Test Name                                                 | Duration | Age |
|-----------------------------------------------------------|----------|-----|
| >>> <a href="#">IndexControllerTest.testCanDoUnitTest</a> | 0.028842 | 4   |

## All Tests

| Package                | Duration | Fail | (diff) | Skip | (diff) | Total | (diff) |
|------------------------|----------|------|--------|------|--------|-------|--------|
| <a href="#">(root)</a> | 0.17 sec | 1    |        | 0    |        | 2     |        |



# Job/testes

41 » Test Results » (root) » [IndexControllerTest](#) » [testCanDoUnitTest](#) [ENABLE AUTO REFRESH](#)

## Failed

**IndexControllerTest.testCanDoUnitTest**

Failing for the past 4 builds (Since #38 )  
Took 28 ms.  
[add description](#)

### Stacktrace

```
IndexControllerTest::testCanDoUnitTest
Failed asserting that <boolean:false> is true.

/var/lib/jenkins/jobs/object-freezer/workspace/tests/application/controllers/IndexControllerTest.php:30
```

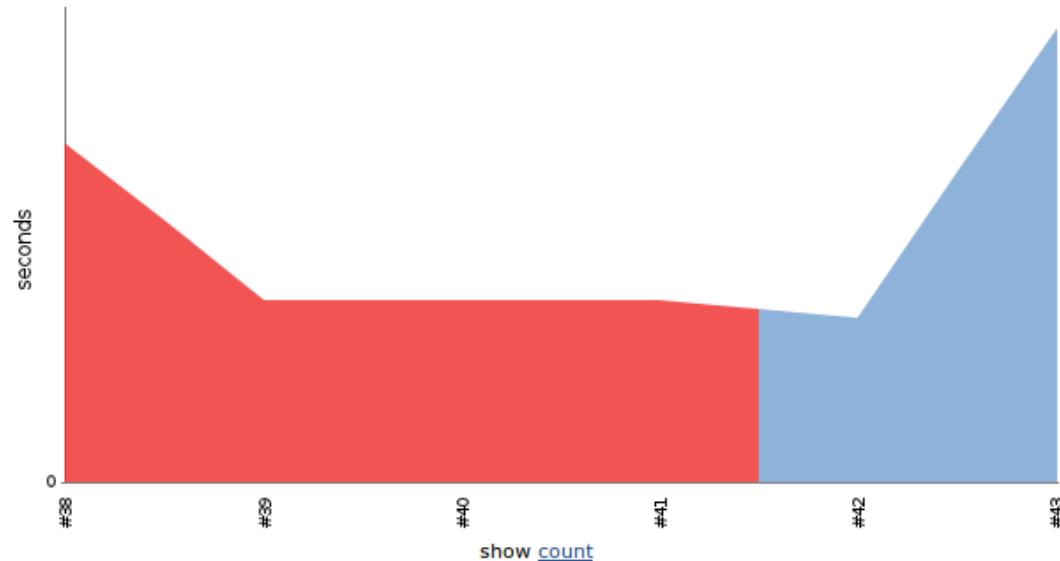


Integração contínua @gpupo



# Job/histórico

History for testCanDoUnitTest



| Build                              | Test Description | Test Duration | Test Result |
|------------------------------------|------------------|---------------|-------------|
| <a href="#">object-freezer #43</a> |                  | 72 ms         | Passed      |
| <a href="#">object-freezer #42</a> |                  | 26 ms         | Fixed       |
| <a href="#">object-freezer #41</a> |                  | 28 ms         | Failed      |
| <a href="#">object-freezer #40</a> |                  | 29 ms         | Failed      |
| <a href="#">object-freezer #39</a> |                  | 29 ms         | Failed      |
| <a href="#">object-freezer #38</a> |                  | 54 ms         | Failed      |

[Older](#)



# Job/estilo

## CheckStyle Result

### Warnings Trend

| All Warnings | New Warnings       | Fixed Warnings |
|--------------|--------------------|----------------|
| 20           | <a href="#">20</a> | 0              |

### Summary

| Total | High Priority      | Normal Priority   | Low Priority |
|-------|--------------------|-------------------|--------------|
| 20    | <a href="#">18</a> | <a href="#">2</a> | 0            |

### Details

| Files                               | Categories | Types | Warnings | Details                                                                                                          | New | High | Normal |
|-------------------------------------|------------|-------|----------|------------------------------------------------------------------------------------------------------------------|-----|------|--------|
| <hr/>                               |            |       |          |                                                                                                                  |     |      |        |
| File                                |            |       | Total    | Distribution                                                                                                     |     |      |        |
| <a href="#">Bootstrap.php</a>       |            |       | 2        | <div style="width: 100%; background-color: red;"></div>                                                          |     |      |        |
| <a href="#">ErrorController.php</a> |            |       | 9        | <div style="width: 90%; background-color: red;"></div> <div style="width: 10%; background-color: yellow;"></div> |     |      |        |
| <a href="#">IndexController.php</a> |            |       | 4        | <div style="width: 100%; background-color: red;"></div>                                                          |     |      |        |
| <a href="#">index.php</a>           |            |       | 5        | <div style="width: 80%; background-color: red;"></div> <div style="width: 20%; background-color: yellow;"></div> |     |      |        |
| Total                               |            |       | 20       |                                                                                                                  |     |      |        |





# Job/cobertura

## *object-freezer*

Current directory: [/var/lib/jenkins/jobs/object-freezer/workspace/src \(dashboard\)](#)

Legend: Low: 0% to 35% Medium: 35% to 70% High: 70% to 100%

|                             | Coverage                                                 |                                                              |                     |                                                           |        |                                                           |        |                                                           |
|-----------------------------|----------------------------------------------------------|--------------------------------------------------------------|---------------------|-----------------------------------------------------------|--------|-----------------------------------------------------------|--------|-----------------------------------------------------------|
|                             | Lines                                                    |                                                              | Functions / Methods |                                                           |        | Classes                                                   |        |                                                           |
| Total                       | <div style="width: 2%; background-color: red;"></div>    | <div style="width: 7.84%; background-color: orange;"></div>  | 7.84%               | <div style="width: 4px; background-color: orange;"></div> | 4 / 51 | <div style="width: 50%; background-color: yellow;"></div> | 50.00% | <div style="width: 2px; background-color: orange;"></div> |
| <a href="#">application</a> | <div style="width: 2%; background-color: red;"></div>    | <div style="width: 10.81%; background-color: orange;"></div> | 10.81%              | <div style="width: 4px; background-color: orange;"></div> | 4 / 37 | <div style="width: 50%; background-color: yellow;"></div> | 50.00% | <div style="width: 2px; background-color: orange;"></div> |
| <a href="#">public</a>      | <div style="width: 0%; background-color: orange;"></div> | <div style="width: 0%; background-color: orange;"></div>     | 0.00%               | <div style="width: 0px; background-color: orange;"></div> | 0 / 14 | <div style="width: 0%; background-color: orange;"></div>  |        |                                                           |

Generated by [PHP\\_CodeCoverage 1.0.4](#) using [PHP 5.3.5-1ubuntu7.2](#) and [PHPUnit 3.5.13](#) at Sat Jul 9 1:36:28 BRT 2011.





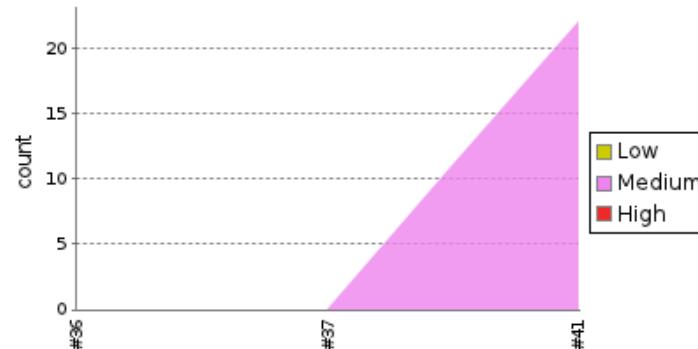
# Job/violações



**Violations Report /job/object-freezer/41 for build 41**

| Type                       | Violations      | Files in violation |
|----------------------------|-----------------|--------------------|
| <a href="#">checkstyle</a> | <b>22 (+22)</b> | <b>4 (+4)</b>      |
| <a href="#">cpd</a>        | 0               | 0                  |
| <a href="#">pmd</a>        | 0               | 0                  |

## checkstyle



| filename                                                        | I | m | h | number ↑      |
|-----------------------------------------------------------------|---|---|---|---------------|
| <a href="#">src/application/controllers/ErrorController.php</a> | 0 | 9 | 0 | <b>9 (+9)</b> |
| <a href="#">src/public/index.php</a>                            | 0 | 7 | 0 | <b>7 (+7)</b> |
| <a href="#">src/application/controllers/IndexController.php</a> | 0 | 4 | 0 | <b>4 (+4)</b> |
| <a href="#">src/application/Bootstrap.php</a>                   | 0 | 2 | 0 | <b>2 (+2)</b> |





# Job/CodeBrowser

[Back to object-freezer](#) index

 **CodeBrowser**

- application (15|7)
- public (6|2)
- autoload.php

◀

| File                                        | Errors | Warnings | CRAP | Checkstyle | Coverage |
|---------------------------------------------|--------|----------|------|------------|----------|
| application/controllers/ErrorController.php | 9      | 5        | 2    | 9          | 3        |
| application/controllers/IndexController.php | 4      | 2        | 2    | 4          |          |
| application/views/scripts/error/error.phtml | 0      | 0        |      |            |          |
| application/views/scripts/index/index.phtml | 0      | 0        |      |            |          |
| application/Bootstrap.php                   | 2      | 0        |      | 2          |          |
| public/index.php                            | 6      | 2        |      | 7          | 1        |
| autoload.php                                | 0      | 0        |      |            |          |





# Job/CodeBrowser

[Back to object-freezer](#)

index

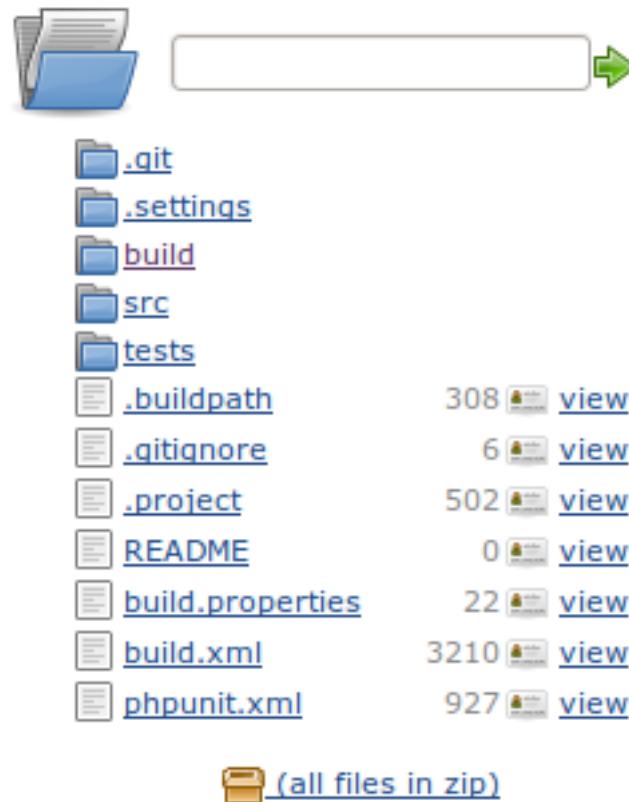


## application/Bootstrap.php

```
1 <?php
2
3 class Bootstrap extends Zend_Application_Bootstrap_Bootstrap
4 {
5
6
7 }
```



# Job/workspace

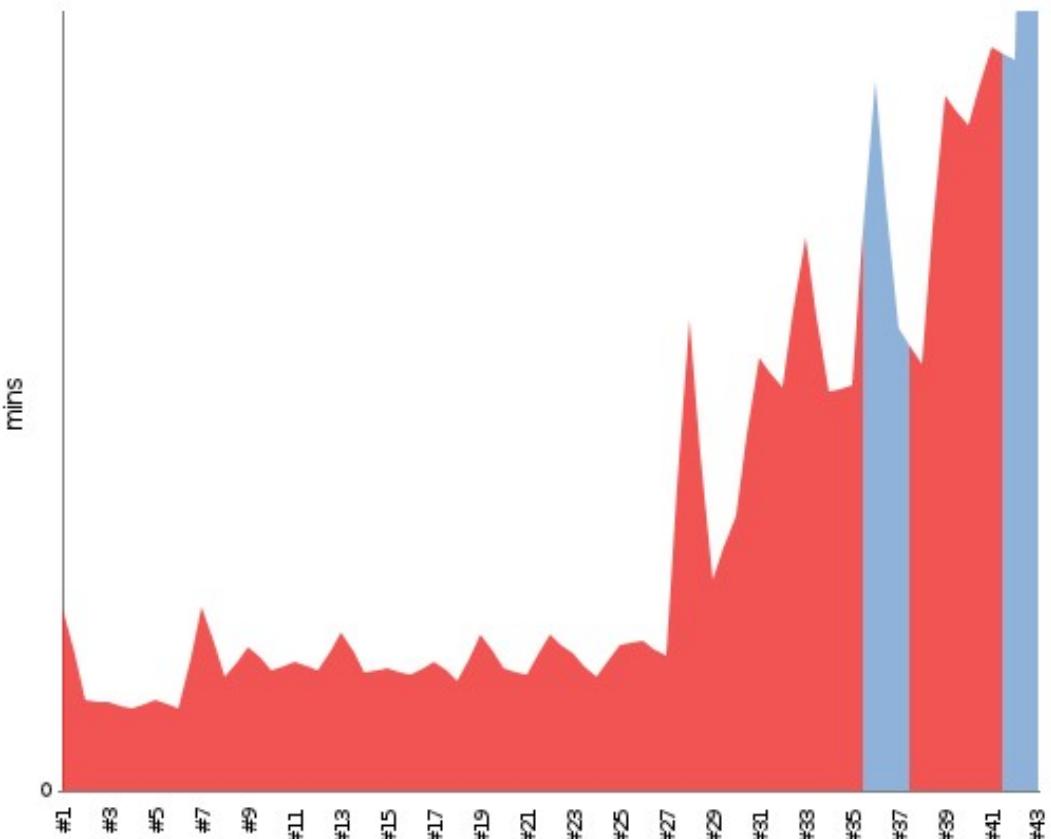




# Job/Build Time Trend

## Build Time Trend

| Build | ↑ Duration |
|-------|------------|
| #43   | 24 sec     |
| #42   | 12 sec     |
| #41   | 12 sec     |
| #40   | 10 sec     |
| #39   | 11 sec     |
| #38   | 7 sec      |
| #37   | 7.6 sec    |
| #36   | 11 sec     |
| #35   | 6.6 sec    |
| #34   | 6.5 sec    |
| #33   | 9.1 sec    |
| #32   | 6.6 sec    |
| #31   | 7.1 sec    |
| #30   | 4.5 sec    |
| #29   | 3.4 sec    |
| #28   | 7.7 sec    |
| #27   | 2.2 sec    |
| #26   | 2.4 sec    |
| #25   | 2.3 sec    |
| #24   | 1.8 sec    |





# Customizando

**Quero que meu projeto avalie apenas o Coding style  
Zend. Como configurar?**





# Customizando

Quero que meu projeto avalie apenas o Coding style Zend. Como configurar?

**build.xml:**

```
<target name="phpcs" description="Generate checkstyle.xml using PHP_CodeSniffer">
 <exec executable="phpcs" output="/dev/null">
 <arg line="--report=checkstyle
 --report-file=${basedir}/build/logs/checkstyle.xml
 --standard=PEAR
 ${source}" />
 </exec>
</target>
```



# Customizando

**Como configurar a codificação do meu projeto?**





# Customizando

Como configurar a codificação do meu projeto?

**build.xml:**

```
///...
<target name="phpcs" description="Generate checkstyle.xml using
PHP_CodeSniffer">
 <exec executable="phpcs" output="/dev/null">
 <arg line="--report=checkstyle
 --report-file=${basedir}/build/logs/checkstyle.xml
 --standard=PEAR
 --encoding=iso-8859-1
 ${source}" />
 </exec>
</target>
//...
```

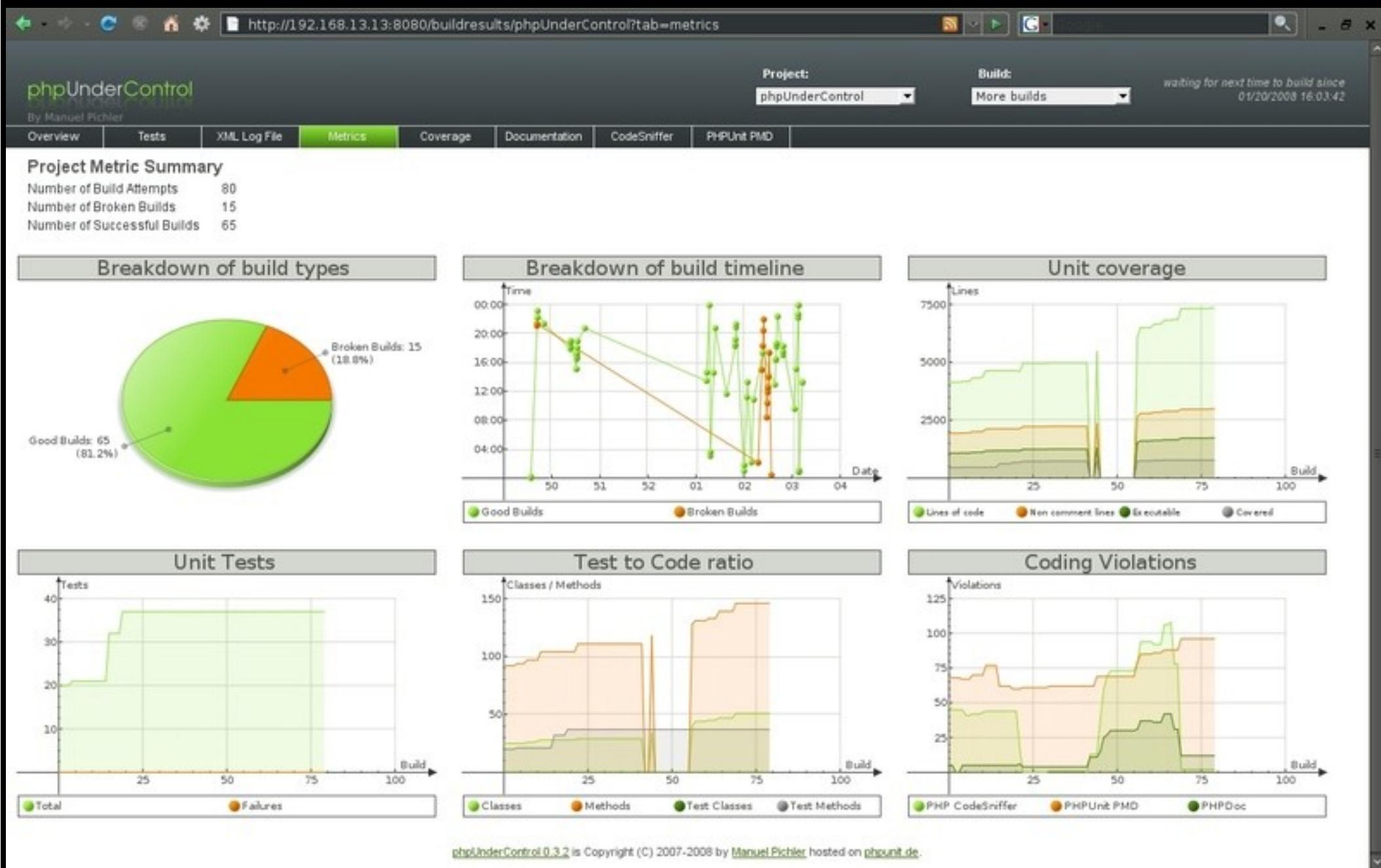




# Jenkins + capistrano

- soon

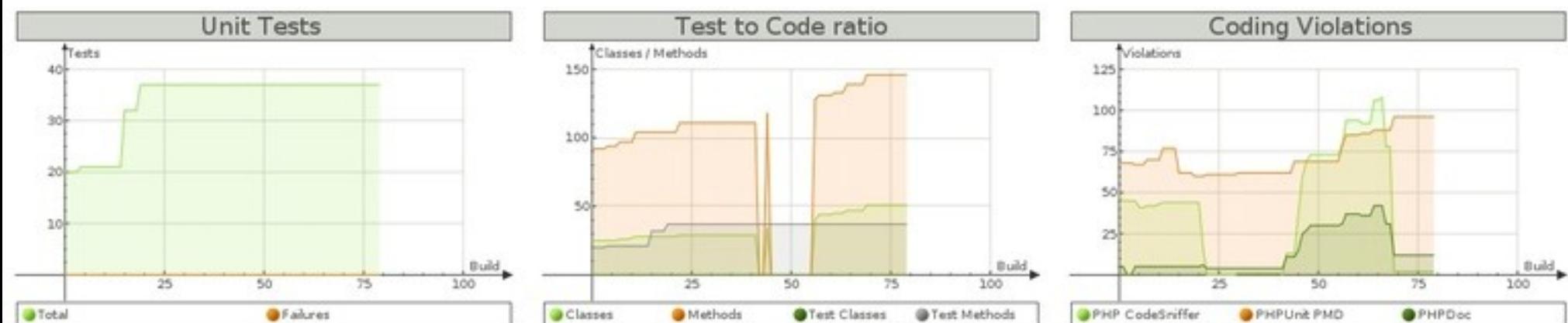




*Revision 1*  
By **Manuel Pichler**  
At Sun, 20 Jan 2008 17:43:05 +0100

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SimpleProject2
phing

Dashboard

BUILD.103 - xinc

/report/phpunit2-noframes.htm

/report/phpunit2-noframes.html - xinc - Artifact - BUILD.103

# Unit Test Results

Designed

## Summary

Tests	Failures	Errors	Success rate
55	0	0	100.00%

Note: *failures* are anticipated and checked for with assertions while *errors* are unanticipated.

## Packages

Note: package statistics are not computed recursively, they only sum up all of its testsuites numbers.

Name	Tests	Errors
<a href="#">Xinc</a>	5	0
<a href="#">Xinc.Build</a>	10	0
<a href="#">Xinc.Config</a>	10	0
<a href="#">Xinc.Engine</a>	14	0

Menu

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  - xinc
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  - SimpleProject2

Dashboard BUILD.103 - xinc /report/phpunit2-noframes.html

/report/phpunit2-noframes.html - xinc - Artifact - BUILD.103

## Unit Test Results

Designed

Xinc 2.0 - Continuous Integration Server for PHP

Menu

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  - phing

Dashboard BUILD.103 - xinc /report/phpunit2-noframes.html /report/coverage/index.html

/report/coverage/index.html - xinc - Artifact - BUILD.103

Overview

**All Packages**

- [Xinc](#)
- [Xinc.Api](#)
- [Xinc.Build](#)
- [Xinc.Config](#)
- [Xinc.Contrib](#)

**Source**

Designed for use with [PHPI](#)

Packages: 14 Classes: 160 Methods: 698 LOC: 16232 Statements: 28.4%



**Statements Methods Total coverage**

Project	Statements	Methods	Total coverage	
Project	27.5%	34.4%	28.4%	<div style="width: 28.4%; background-color: green;"></div>

**Packages**

**Statements Methods Total coverage**

Packages	Statements	Methods	Total coverage	
<a href="#">Xinc.Exception</a>	0.0%	0.0%	0.0%	<div style="width: 0%; background-color: red;"></div>
<a href="#">default</a>	0.0%	0.0%	0.0%	<div style="width: 0%; background-color: red;"></div>
<a href="#">Xinc.Contrib</a>	4.1%	0.0%	3.6%	<div style="width: 3.6%; background-color: green;"></div>
<a href="#">Xinc.Data</a>	7.7%	0.0%	6.3%	<div style="width: 6.3%; background-color: green;"></div>

Xinc Build Exception

# Referências

- <https://wiki.jenkins-ci.org/display/JENKINS/Installing+Jenkins+on+Ubuntu>
- <https://github.com/sebastianbergmann/php-project-wizard>
- <https://github.com/sebastianbergmann/phpcpd>
- <https://gist.github.com/1078415>

**<http://www.delicious.com/gpupo/ci>**