

<http://d.hatena.ne.jp/Yamashiro0217/20110619/1308491991>

PHP の設定

必要なライブラリ、ツールのインストール

```
yum install php-xml

pear channel-discover pear.phing.info
pear channel-discover pear.pdepend.org
pear channel-discover pear.phpmd.org
pear channel-discover pear.phpunit.de
pear channel-discover components.ez.no
pear channel-discover pear.symfony-project.com

pear install phing/phing
pear install pdepend/PHP_Depend
pear install phpmd/PHP_PMD
pear install phpunit/phpcpd
pear install PHPDocumentor
pear install --alldeps phpunit/PHPUnit
```

もしインストール中に他に必要なライブラリがある場合は、状況に応じてインストールする。

各ツールの説明

phing

PHP 版 ant

PHPMD

使われていない変数があるか等のソースチェックをする

PHPCPD

重複コードがあるか等のソースチェックをする

PHPDocumentor

PHPDoc を生成する

PHPUnit

テスト・ツール

Jenkins の設定

jenkins のインストール等は [Jenkins](#) を参照

プラグインのインストール

ブラウザでもインストールできるが、CUI でインストール

```
wget -O jenkins-cli.jar http://localhost:8080/jnlpJars/jenkins-cli.jar
java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin phing
java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin dry
java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin pmd
java -jar jenkins-cli.jar -s http://localhost:8080 install-plugin clover
java -jar jenkins-cli.jar -s http://localhost:8080 safe-restart
```

ジョブの設定

jenkins の設定は $\${JENKINS_HOME}$ 以下に全てある。

各ジョブの設定は、 $\${JENKINS_HOME}/jobs/$ ジョブ名 / にある。

ジョブの設定ファイル

`${JENKINS_HOME}/jobs/ジョブ名/config.xml`

ビルドの設定例 テストのみ (ソースコードチェックをしない)

ビルドの保存最大数

5. 多いと邪魔になる。

ビルド

Phing。ターゲットは入力しない場合、デフォルトで build.xml を読み込む

ビルド後の処理

JUnit テスト結果の集計、Javadoc の保存、Publish xUnit test result report、Emotional Jenkins を有効。細かい設定は、config.xml 参照

サンプルジョブ

ディレクトリ構成

```
PHP_Sample01
|-- builds
|-- config.xml
|-- javadoc
-- workspace
    |-- build.xml
    |-- phpdoc
    |-- phpunit.xml
    |-- src
    |-- sample01.php
    -- test
        |-- sample01Test.php
```

config.xml

```
<?xml version='1.0' encoding='UTF-8'?>
<project>
  <actions/>
  <description></description>
  <logRotator>
    <daysToKeep>-1</daysToKeep>
    <numToKeep>5</numToKeep>
    <artifactDaysToKeep>-1</artifactDaysToKeep>
    <artifactNumToKeep>-1</artifactNumToKeep>
  </logRotator>
  <keepDependencies>false</keepDependencies>
  <properties/>
  <scm class="hudson.scm.NullSCM"/>
  <canRoam>true</canRoam>
  <disabled>false</disabled>
  <blockBuildWhenDownstreamBuilding>false</blockBuildWhenDownstreamBuilding>
  <blockBuildWhenUpstreamBuilding>false</blockBuildWhenUpstreamBuilding>
  <triggers class="vector"/>
  <concurrentBuild>false</concurrentBuild>
  <builders>
    <hudson.plugins.phing.PhingBuilder>
      <useModuleRoot>true</useModuleRoot>
    </hudson.plugins.phing.PhingBuilder>
  </builders>
  <publishers>
    <hudson.tasks.junit.JUnitResultArchiver>
      <testResults>phpunit.xml</testResults>
      <keepLongStdio>false</keepLongStdio>
      <testDataPublishers/>
    </hudson.tasks.junit.JUnitResultArchiver>
    <hudson.tasks.JavadocArchiver>
```

```

    <javadocDir>phpdoc</javadocDir>
    <keepAll>false</keepAll>
  </hudson.tasks.JavadocArchiver>
  <xunit>
    <types/>
    <thresholds>
      <org.jenkinsci.plugins.xunit.threshold.FailedThreshold>
        <unstableThreshold>0</unstableThreshold>
        <unstableNewThreshold>0</unstableNewThreshold>
        <failureThreshold>0</failureThreshold>
        <failureNewThreshold>0</failureNewThreshold>
      </org.jenkinsci.plugins.xunit.threshold.FailedThreshold>
      <org.jenkinsci.plugins.xunit.threshold.SkippedThreshold>
        <unstableThreshold>0</unstableThreshold>
        <unstableNewThreshold>0</unstableNewThreshold>
        <failureThreshold>0</failureThreshold>
        <failureNewThreshold>0</failureNewThreshold>
      </org.jenkinsci.plugins.xunit.threshold.SkippedThreshold>
    </thresholds>
    <thresholdMode>1</thresholdMode>
  </xunit>
  <org.jenkinsci.plugins.emotional__jenkins.EmotionalJenkinsPublisher/>
</publishers>
<buildWrappers/>
</project>

```

build.xml

```

<?xml version="1.0" encoding="utf-8" ?>
<project name="ci_workshop" basedir="." default="all">

  <property name="outputDir" value="."/>

  <target name="phpunit">
    <phpunit>
      <formatter type="xml" outfile="{outputDir}/phpunit.xml"/>
      <batchtest>
        <fileset dir="./test/">
          <include name="**/*Test.php"/>
        </fileset>
      </batchtest>
    </phpunit>
  </target>

  <target name="phpdoc">
    <mkdir dir="phpdoc" />
    <phpdoc title="API Documentation"
      destdir="./phpdoc"
      output="HTML:Smarty:PHP">
      <fileset dir="./src">
      </fileset>
    </phpdoc>
  </target>

  <target name="all" depends="phpunit,phpdoc">
  </target>

</project>

```

ビルドの設定例 2 テストとソースコードチェック

ビルド後の処理 :PMD 警告の集計、重複コード分析の集計。細かい設定は、config.xml 参照

サンプルジョブ

ディレクトリ構成

```

PHP_Sample02
|-- builds
|-- config.xml
|-- javadoc
-- workspace

```

```

|-- build.xml
|-- cpd.xml
|-- phpdoc
|-- phunit.xml
|-- pmd.xml
|-- ruleset.xml
|-- src
|   |-- sample01.php
|   |-- sample02.php
-- test
|   |-- sample01Test.php

```

config.xml

```

<?xml version='1.0' encoding='UTF-8'?>
<project>
  <actions/>
  <description></description>
  <logRotator>
    <daysToKeep>-1</daysToKeep>
    <numToKeep>5</numToKeep>
    <artifactDaysToKeep>-1</artifactDaysToKeep>
    <artifactNumToKeep>-1</artifactNumToKeep>
  </logRotator>
  <keepDependencies>>false</keepDependencies>
  <properties/>
  <scm class="hudson.scm.NullSCM"/>
  <canRoam>true</canRoam>
  <disabled>>false</disabled>
  <blockBuildWhenDownstreamBuilding>>false</blockBuildWhenDownstreamBuilding>
  <blockBuildWhenUpstreamBuilding>>false</blockBuildWhenUpstreamBuilding>
  <triggers class="vector"/>
  <concurrentBuild>>false</concurrentBuild>
  <builders>
    <hudson.plugins.phing.PingBuilder>
      <useModuleRoot>true</useModuleRoot>
    </hudson.plugins.phing.PingBuilder>
  </builders>
  <publishers>
    <hudson.plugins.pmd.PmdPublisher>
      <healthy></healthy>
      <unHealthy></unHealthy>
      <thresholdLimit>low</thresholdLimit>
      <pluginName>[PMD] </pluginName>
      <defaultEncoding></defaultEncoding>
      <canRunOnFailed>>false</canRunOnFailed>
      <useStableBuildAsReference>>false</useStableBuildAsReference>
      <useDeltaValues>>false</useDeltaValues>
      <thresholds>
        <unstableTotalAll>0</unstableTotalAll>
        <unstableTotalHigh>0</unstableTotalHigh>
        <unstableTotalNormal>0</unstableTotalNormal>
        <unstableTotalLow>0</unstableTotalLow>
        <failedTotalAll></failedTotalAll>
        <failedTotalHigh></failedTotalHigh>
        <failedTotalNormal></failedTotalNormal>
        <failedTotalLow></failedTotalLow>
      </thresholds>
      <shouldDetectModules>>false</shouldDetectModules>
      <dontComputeNew>true</dontComputeNew>
      <doNotResolveRelativePaths>true</doNotResolveRelativePaths>
      <pattern>pmd*.xml</pattern>
    </hudson.plugins.pmd.PmdPublisher>
    <hudson.plugins.dry.DryPublisher>
      <healthy></healthy>
      <unHealthy></unHealthy>
      <thresholdLimit>low</thresholdLimit>
      <pluginName>[DRY] </pluginName>
      <defaultEncoding></defaultEncoding>
      <canRunOnFailed>>false</canRunOnFailed>
      <useStableBuildAsReference>>false</useStableBuildAsReference>
      <useDeltaValues>>false</useDeltaValues>
      <thresholds>
        <unstableTotalAll></unstableTotalAll>
        <unstableTotalHigh></unstableTotalHigh>
        <unstableTotalNormal></unstableTotalNormal>
        <unstableTotalLow></unstableTotalLow>
        <failedTotalAll></failedTotalAll>

```

```

    <failedTotalHigh></failedTotalHigh>
    <failedTotalNormal></failedTotalNormal>
    <failedTotalLow></failedTotalLow>
  </thresholds>
  <shouldDetectModules>false</shouldDetectModules>
  <dontComputeNew>true</dontComputeNew>
  <doNotResolveRelativePaths>false</doNotResolveRelativePaths>
  <pattern>cpd*.xml</pattern>
  <highThreshold>20</highThreshold>
  <normalThreshold>10</normalThreshold>
</hudson.plugins.dry.DryPublisher>
<hudson.tasks.junit.JUnitResultArchiver>
  <testResults>phpunit.xml</testResults>
  <keepLongStdio>false</keepLongStdio>
  <testDataPublishers/>
</hudson.tasks.junit.JUnitResultArchiver>
<hudson.tasks.JavadocArchiver>
  <javadocDir>phpdoc</javadocDir>
  <keepAll>false</keepAll>
</hudson.tasks.JavadocArchiver>
<xunit>
  <types/>
  <thresholds>
    <org.jenkinsci.plugins.xunit.threshold.FailedThreshold>
      <unstableThreshold>0</unstableThreshold>
      <unstableNewThreshold>0</unstableNewThreshold>
      <failureThreshold>0</failureThreshold>
      <failureNewThreshold>0</failureNewThreshold>
    </org.jenkinsci.plugins.xunit.threshold.FailedThreshold>
    <org.jenkinsci.plugins.xunit.threshold.SkippedThreshold>
      <unstableThreshold>0</unstableThreshold>
      <unstableNewThreshold>0</unstableNewThreshold>
      <failureThreshold>0</failureThreshold>
      <failureNewThreshold>0</failureNewThreshold>
    </org.jenkinsci.plugins.xunit.threshold.SkippedThreshold>
  </thresholds>
  <thresholdMode>1</thresholdMode>
</xunit>
<org.jenkinsci.plugins.emotional__jenkins.EmotionalJenkinsPublisher/>
</publishers>
<buildWrappers/>
</project>

```

build.xml

```

<?xml version="1.0" encoding="utf-8" ?>
<project name="ci_workshop" basedir="." default="all">

  <property name="outputDir" value="."/>

  <target name="phpcpd">
    <phpcpd minTokens="10">
      <fileset dir="./src/">
        <include name="**/*.php"/>
      </fileset>
      <formatter type="pmd"
        outfile="${outputDir}/cpd.xml"/>
    </phpcpd>
  </target>

  <target name="phpmd">
    <phpmd rulesets="ruleset.xml">
      <fileset dir="./src">
        <exclude name="exclude.php"/>
      </fileset>
      <formatter type="xml"
        outfile="${outputDir}/pmd.xml"/>
    </phpmd>
  </target>

  <target name="phpunit">
    <phpunit>
      <formatter type="xml" outfile="${outputDir}/phpunit.xml"/>
      <batchtest>
        <fileset dir="./test/">
          <include name="**/*Test.php"/>
        </fileset>
      </batchtest>
    </phpunit>
  </target>

```

```

</target>

<target name="phpdoc">
  <mkdir dir="phpdoc" />
  <phpdoc title="API Documentation"
    destdir="./phpdoc"
    output="HTML:Smarty:PHP">
    <fileset dir="./src">
    </fileset>
  </phpdoc>
</target>

<target name="all" depends="phpcpd,phpmd,phpunit,phpdoc">
</target>

</project>

```

ruleset.xml コードチェックのルール

```

<?xml version="1.0"?>
<ruleset name="Hyper mANAGE PHPMD ruleset"
  xmlns="http://pmd.sf.net/ruleset/1.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://pmd.sf.net/ruleset/1.0.0
    http://pmd.sf.net/ruleset_xml_schema.xsd"
  xsi:noNamespaceSchemaLocation="http://pmd.sf.net/ruleset_xml_schema.xsd">
  <rule ref="rulesets/codesize.xml" />
  <rule ref="rulesets/design.xml" />
  <rule ref="rulesets/naming.xml">
    <exclude name="ShortVariable" />
    <exclude name="LongVariable" />
  </rule>
  <rule ref="rulesets/unusedcode.xml" />
</ruleset>

```