

MavenBuilder

A simple Builder to interface with Maven

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1. Overview

MavenBuilder: *A simple Builder to interface with Maven*

1.1. Intent

Provide a standard interface to automate [Maven](#) integrated builds.

- Automate environment and configuration setup.
- Expose maven options and arguments into the ControlTier object model for automating each build.
- Support automated builds within a Continuous Integration (CI) Loop such as [Hudson](#) or [CruiseControl](#).
- Support additional [Continuous Deployment](#) as part of a CI Loop in order to automate end to end build and deployment within a development environment.

1.2. Problem

Automating builds require command line parameters, environment, supporting infrastructure, and configuration. Setting up an automated build is different than a developer's environment in that pure command line and environment must be explicit and managed for change. Exposing all of these configurations including any referring CI deployed tool must be coherently managed.

2. Design

Super Type Builder

Role	Concrete. (Objects can be created.)
Instance Names	Unique
Notification	false
Template Directory	
Data View	Bi-directional, proximity: 1
Logger Name	Builder

3. Constraints

3.1. Allowed Child Dependencies

- BuilderAutoUpdate1
- BuilderBuildFile1
- BuilderBuildstamp1
- BuilderBuildTarget1
- BuilderImportMax1
- BuilderImportMin1
- BuilderJavaHome1
- [BuilderMavenHome](#) 1
- [BuilderMavenOpts](#) 1
- [BuilderNotificationList](#) 1
- BuilderPackageBuildtimePattern1
- BuilderPackageExtension1
- BuilderPackageFilebase1
- BuilderPackageInstallRank1
- BuilderPackageInstallroot1
- BuilderPackageRequireBuildstamp1
- BuilderPackageSeparator1
- BuilderPackageType1
- BuilderPackageVendor1
- BuilderPackageVersion1
- BuilderPath1
- BuilderScmBinding1
- [BuilderScmCheckExternal](#) 1
- BuilderScmConnection1
- BuilderScmLabel1
- BuilderScmModule1
- BuilderScmUser1
- BuilderScmView1
- [BuilderVersionBuild](#) 1
- [BuilderVersionMajor](#) 1
- [BuilderVersionMinor](#) 1
- [BuilderVersionRelease](#) 1
- BuilderVersionTag1
- CruiseControlArtifact1
- CruiseControlInterval1
- CruiseControlMailHost1
- CruiseControlReturnAddress1
- HudsonPollSpec1

- [PlatformZip](#)

1: These types have a *Singleton* constraint. Only one instance may be added as a resource.

3.2. Allowed Parent Dependencies

- [CruiseControl](#)
- [Hudson](#)
- Node
- Updater

Limit referring [CruiseControl](#) and [Hudson](#) objects for Continuous Integration (CI) automated builds.

Allow referring Updater's for optional automatic deployments within a CI loop.

Support Node based deployments

4. Attributes

4.1. Exported Attributes

Name	Property	Description
basedir	deployment-basedir	the "checkout" workspace of the maven enabled build
targetdir	deployment-install-root	the "target" directory containing artifact(s) produced by maven enabled build

4.2. Defaults for Imported Attributes

Name	Default	Description
autoUpdate	false	turn on automatic deployments when integrated within a Continuous Integration Loop (typical for development environments), defaults to false
buildFile	pom.xml	maven buildfile, defaults to "pom.xml"
buildPath	/bin:/usr/bin	PATH environment used for the build, defaults to a typical unix

		environment
buildTarget	all	maven build target, defaults to "all"
cruiseControlInterval	300	Continuous Integration build interval via cruisecontrol, defaults to 300 seconds
hudsonPollSpec	*/* * * * *	Continuous Integration build interval hudson, defaults to 5 minutes (cron based format)
hudsonPollSpec	*/* * * * *	
importMax	1	maximum number of packages to import into the controltier package repository, defaults to 1
importMin	1	minimum number of packages to import into the controltier package repository, defaults to 1
javaHome	\${env.JAVA_HOME}	value for JAVA_HOME (root of the jdk install), defaults to JAVA_HOME environment variable
mavenHome	\${env.MAVEN_HOME}	value for MAVEN_HOME (root of the maven install), defaults to MAVEN_HOME environment variable
mavenOpts		optional value for MAVEN_OPTS passed into the maven build
packageBuildtimePattern	yyyyMMdd'T'HHmmss	
packageExtension	war	package filename extension of the produced artifact, defaults to the "war"
packageFilebase	.*?	basename of the produced artifact filename (precedes the packageSeparator character), defaults to the ".*?" regular expression

packageInstallRank	10	default installation for artifactobject's package object and used at deployment time.
packageInstallroot	<code>\${entity.attribute.catalinaBase}/w</code>	target installation root for the produced artifact when deployed, defaults to the webapps directory of a tomcat container
packageSeparator	-	separator in produced filename of the artifact differentiating the package name from the version of the package, defaults to the "-" character
packageType	war	package type for the produced artifact when imported into the controltier package repository, defaults to the war package type
requireBuildstamp	false	enforce use of the buildstamp command line parameter, defaults to false
scmBinding	cvs	source code management binding, defaults to cvs
scmLabel		optional label to apply prior to checkout from source
scmUser	<code>\${user.name}</code>	user name for interacting with the source code management system, defaults to the effective user

5. Commands

View the available commands in the [User Reference](#).

6. Related Types

The following types are defined for use with MavenBuilder.

6.1. BuilderMavenHome

6.1.1. Overview

BuilderMavenHome: *Maven instance that should be used*

supports the "mavenHome" attribute setting, where settingValue will override the referring attribute-default (if defined). See use of "MAVEN_HOME" environment variable and [Maven](#) documentation.

6.1.2. Design

Super Type

BuilderSetting

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.1.3. Attributes

6.1.3.1. Exported Attributes

Name	Property
mavenHome	settingValue

6.2. BuilderMavenOpts

6.2.1. Overview

BuilderMavenOpts: *Maven options that should be used*

supports the "mavenOpts" attribute setting, where settingValue will override the referring attribute-default (if defined). See use of "MAVEN_OPTS" environment variable and [Maven](#) documentation.

6.2.2. Design

Super Type

BuilderSetting

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.2.3. Attributes

6.2.3.1. Exported Attributes

Name	Property
mavenOpts	settingValue

6.3. BuilderNotificationList

6.3.1. Overview

BuilderNotificationList: *Comma separated list of email addresses to be notified about the build*

6.3.2. Design

Super Type

BuilderSetting

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.3.3. Attributes

6.3.3.1. Exported Attributes

Name	Property
notificationList	settingValue

6.4. BuilderScmCheckExternal

6.4.1. Overview

BuilderScmCheckExternal: *Subversion specific external definition to check for last changed revision*

6.4.2. Design

Super Type

BuilderSetting

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.4.3. Attributes

6.4.3.1. Exported Attributes

Name	Property
scmCheckExternal	settingValue

6.5. BuilderVersionBuild

6.5.1. Overview

BuilderVersionBuild: *Build version number to use to generate a buildstamp (often pulled from Subversion, etc)*

6.5.2. Design

Super Type
BuilderSetting

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.5.3. Attributes

6.5.3.1. Exported Attributes

Name	Property
versionBuild	settingValue

6.6. BuilderVersionMajor

6.6.1. Overview

BuilderVersionMajor: *Major version number to use to generate a buildstamp*

6.6.2. Design

Super Type BuilderSetting

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.6.3. Attributes

6.6.3.1. Exported Attributes

Name	Property
versionMajor	settingValue

6.7. BuilderVersionMinor

6.7.1. Overview

BuilderVersionMinor: *Minor version number to use to generate a buildstamp*

6.7.2. Design

Super Type BuilderSetting

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.7.3. Attributes

6.7.3.1. Exported Attributes

Name	Property
versionMinor	settingValue

6.8. BuilderVersionRelease

6.8.1. Overview

BuilderVersionRelease: *Release version number to use to generate a buildstamp*

6.8.2. Design

Super Type BuilderSetting

Role	Concrete. (Objects can be created.)
Instance Names	Unique

6.8.3. Attributes

6.8.3.1. Exported Attributes

Name	Property
versionRelease	settingValue