

Integration

Check out how to integrate GParS into your projects.

Grape

Integration using *Grape* is very straightforward:

```
@Grab(group='org.codehaus.gpars', module='gpars', version='1.2.1')
```

Snapshots

```
@GrabResolver(name='gpars', root='http://snapshots.repository.codehaus.org/',  
m2Compatible=true)  
@Grab(group='org.codehaus.gpars', module='gpars', version='1.3-SNAPSHOT')
```

Grape config (optional)

GParS optionally relies on a couple of third-party libraries. Most of them reside in the central maven repository, however, since since the Netty lib resides in the jboss repository only, to leverage the (prototype) remoting capabilities, you either need to use the *GrabResolver* annotation (in Groovy 1.7):

```
@GrabResolver(name='jboss', root='http://repository.jboss.org/maven2/')
```

or make sure your `grapeConfig.xml` file contains all the necessary maven repositories:

```

<!-- based on http://groovy.codehaus.org/Grape#Grape-CustomizeIvysettings -->
<ivysettings>
  <settings defaultResolver="downloadGrapes" />
  <resolvers>
    <chain name="downloadGrapes">
      <filesystem name="cachedGrapes">
        <ivy
pattern="${user.home}/.groovy/grapes/[organisation]/[module]/ivy-[revision].xml"/>
        <artifact
pattern="${user.home}/.groovy/grapes/[organisation]/[module]/[type]s/[artifact]-[revision].[ext]"/>
        </filesystem>
        <!-- todo add 'endorsed groovy extensions' resolver here -->
        <filesystem name="m2local" m2compatible="true">
          <artifact
pattern="${user.home}/.m2/repository/[organisation]/[module]/[revision]/[module]-[revision].[ext]" />
          </filesystem>
          <ibiblio name="ibiblio" m2compatible="true"/>
          <ibiblio name="codehaus" root="http://repository.codehaus.org/"
m2compatible="true"/>
          <ibiblio name="jboss" root="http://repository.jboss.org/maven2/"
m2compatible="true"/><!-- added by me -->
          <ibiblio name="java.net2" root="http://download.java.net/maven/2/"
m2compatible="true"/>
          <!-- <ibiblio name="codehaus.snapshot"
root="http://snapshots.repository.codehaus.org/" m2compatible="true"/> --><!-- Enable
for GPars snapshots -->
        </chain>
      </resolvers>
    </ivysettings>

```

Gradle

GPars is stored in the central maven repository at <http://repo1.maven.org/maven2/org/codehaus/gpars/> and also in the Codehaus maven repository at <http://repository.codehaus.org/org/codehaus/gpars/gpars/>. To include GPars in your project add either of the following repositories and also the dependency into your project:

```

repositories {
  mavenCentral()

  //add repositories for optional dependencies
  mavenRepo urls: ['http://repository.jboss.org/maven2/']
}

dependencies {
  compile "org.codehaus.gpars:gpars:1.2.1"
}

```

Snapshots

```
repositories {
    mavenRepo urls: ["http://snapshots.repository.codehaus.org/"]

    //add repositories for optional dependencies
    mavenRepo urls: ['http://repository.jboss.org/maven2/']
}
dependencies {
    compile "org.codehaus.gpars:gpars:1.3-SNAPSHOT"
}
```

Maven

To include GParS in your project add the following (optional) repositories and dependencies into your project:

```
<repositories>
  <repository>
    <id>jboss</id>
    <url>http://repository.jboss.org/maven2/</url>
  </repository>
</repositories>

<dependencies>
  <dependency>
    <groupId>org.codehaus.gpars</groupId>
    <artifactId>gpars</artifactId>
    <version>1.2.1</version>
  </dependency>
</dependencies>
```

Sample maven-based Java API demo project

You may also like [a stand-alone maven-based Java API sample project](#) showing how to use GParS from Java and how to integrate GParS with Maven.

And the same [sample project](#) is available for the SNAPSHOT release.

Snapshots

```
<repositories>
  <repository>
    <id>jboss</id>
    <url>http://repository.jboss.org/maven2/</url>
  </repository>
  <repository>
    <id>codehaus.snapshots</id>
    <url>http://snapshots.repository.codehaus.org</url>
  </repository>
</repositories>

<dependencies>
  <dependency>
    <groupId>org.codehaus.gpars</groupId>
    <artifactId>gpars</artifactId>
    <version>1.3-SNAPSHOT</version>
  </dependency>
</dependencies>
```

Grails

Grails since 1.2

Leveraging the build in dependency management you can instead installing the plugins update the BuildConfig.groovy file accordingly:

```
repositories {
  mavenCentral()
  // mavenRepo 'http://snapshots.repository.codehaus.org' //enable if using GPars
  snapshots
  mavenRepo 'http://repository.jboss.org/maven2/'
}
dependencies {
  build 'org.codehaus.gpars:gpars:1.2.1'
}
```

Griffon

Using the Griffon built-in dependency management:

```

griffon.project.dependency.resolution = {
    inherits "global"

    default dependencies
        repositories {
            griffonHome()
            mavenCentral()
        }
        dependencies {
            runtime org.codehaus.gpars:gpars:1.2.1
        }
    }
}

```

You may also consider using the plugins to enable GPars for older Griffon versions

Dependencies

GPars itself depends on a couple of libraries from the maven central repository. Check out the GPars public pom:

```

<?xml version="1.0" encoding="UTF-8"?>
<project xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
http://maven.apache.org/xsd/maven-4.0.0.xsd" xmlns="http://maven.apache.org/POM/4.0.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <modelVersion>4.0.0</modelVersion>
    <groupId>org.codehaus.gpars</groupId>
    <artifactId>gpars</artifactId>
    <version>1.2.1</version>
    <name>GPars</name>
    <description>The Groovy and Java high-level concurrency library offering actors,
dataflow, CSP, agents, parallel collections, fork/join and more</description>
    <url>http://gpars.codehaus.org</url>
    <inceptionYear>2009</inceptionYear>
    <licenses>
        <license>
            <name>The Apache Software License, Version 2.0</name>
            <url>http://www.apache.org/licenses/LICENSE-2.0.txt</url>
            <distribution>repo</distribution>
        </license>
    </licenses>
    <dependencies>

        <dependency>
            <groupId>org.multiverse</groupId>
            <artifactId>multiverse-core</artifactId>
            <version>0.7.0</version>
            <scope>compile</scope>
        </dependency>

        <dependency>
            <groupId>org.codehaus.jcsp</groupId>
            <artifactId>jcsp</artifactId>
            <version>1.1-rc5</version>
            <scope>compile</scope>
            <optional>true</optional>

```

```
</dependency>
```

```
<dependency>  
  <groupId>org.codehaus.jsr166-mirror</groupId>  
  <artifactId>jsr166y</artifactId>  
  <version>1.7.0</version>  
  <scope>compile</scope>  
</dependency>
```

```
<dependency>  
  <groupId>org.codehaus.groovy</groupId>  
  <artifactId>groovy-all</artifactId>  
  <version>2.1.9</version>  
  <scope>compile</scope>  
  <optional>true</optional>  
</dependency>
```

```
<dependency>  
  <groupId>org.jboss.netty</groupId>  
  <artifactId>netty</artifactId>  
  <version>3.2.9.Final</version>  
  <scope>compile</scope>  
  <optional>true</optional>  
</dependency>
```

```
</dependencies>  
</project>
```

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