



First steps in Open Development

Sander van der Waal

OSS Watch Open development workshop 7 December 2009

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Who is Sander van der Waal?

- Member of staff at OSS Watch since Oct. 2009
- Java software developer
- Worked with private software companies
- Heavily involved with our project registry framework Simal





Agenda

- Why GX got involved with open source
- The project: Apache Felix
- Experiences with how to effectively use
 - Mailing list
 - Issue tracker
 - Version control system





GX

- Leading vendor of CMS software in the Netherlands.
- Developed in-house CMS to be sold and tailormade for large customers
- Project for new CMS version with complete new architecture started first half 2006
- Focus on open standards and open software





Why get involved with open source?

- Don't reinvent the wheel
- Use open standards and implementations
- Specific for GX:
 - Use OSGi → Apache Felix
 - Use JCR → Apache Jackrabbit
- My role was on the OSGi-team





OSGi and Apache Felix

- OSGi: Spec. of module system for Java
 - Update modules while application running
 - Explicit and good version numbering
- Apache Felix:
 - Implementation of OSGi standard
 - Apache Incubator project (2006)
 - Relatively new community





Getting started with Apache Felix

- Download software from website
- Check out source code from version control
- Subscribe to developer mailing list





Use of public mailing lists

- Our project team learnt a lot from 'lurking'
- Project has to assure all communication is on the list
- All communication between colleagues on the project also on the list
- Separate target groups in different lists, when appropriate





Actions 🕶

Interact and learn

Subject: Embedding Felix

Subject: Re: Embedding Felix

From: Herko ter Horst (her...@terhorst.net)

Date: Apr 5, 2006 5:38:34 am List: org.apache.felix.dev

What alternatives should I consider? Maybe a seperate management service, but how to locate/access it in a standard J2SE environment? JMX?

This is the approach I'm sort of assuming in my OSGi Launcher project (which I hope to release Real Soon Now(tm)).

The different context implementations in that project allow you to launch an OSGi framework (any implementation, not just Felix) from different contexts like a regular Java application, a WebStart app, a servlet container, etc. The project also allows some limited interaction through a special interface. However, the actual application (running on the framework) is assumed to be under the control of a management bundle. Adding/removing/updating bundles would be a task for that bun

Perhaps you can describe a bit more of your use case? For example, w is the reason the part of your application that wants "to have access to it to maybe install some bundles, access services, restart or shut it down" needs to remain outside the OSGi framework?

Best Regards,

Bram de Kruijff

Cheers,

Horko

Actions +

application. Hope

om another ol it? For

Subject: Re: Embedding Felix

From: Marcel Offermans (marc...@luminis.nl)

Date: Apr 5, 2006 5:59:55 am List: org.apache.felix.dev

Bram de Kruijff wrote:

What alternatives should I consider? Maybe a seperate management service, but how to locate/access it in a standard J2SE environment? JMX?

Actions •

If you want to manage (monitor, update, ..) bundles from within a standard J2SE environment, using JMX is a good solution. Especially if you use Java 5 with JMX built-in. It's fairly easy to expose bundles and services through JMX so you can manage them and that might even blend in well with the management of the application that the OSGi framework is wrapped in (if you use JMX for that too).

Greetings, Marcel



Promote give and take

Subject: RE: Error building Felix Actions • From: Bram de Kruijff (bra...@gx.nl) Date: May 31, 2006 4:31:22 am List: org.apache.felix.dev Is this the result of some sort of "mvn deploy" operation or something? If it is easy, tell me what to do and I will update it. yes, 'mvn deploy' will transfer your artifacts to the destination specified by distributionManagement in de main pom.xml. It would be nice if this repo was somewhat up to date (at this point we use an internal mirror to be able to distribute up-to-date snapshot artifacts). You probably would want to let CI take care of this for snapshots. Is there a continuum running somewhere? best regards, Bram ----Original Message-----From: Richard S. Hall [mailto:hea...@ungoverned.org] Sent: Wednesday, May 31, 2006 1:12 PM To: feli...@incubator.apache.org Subject: Re: Error building Felix



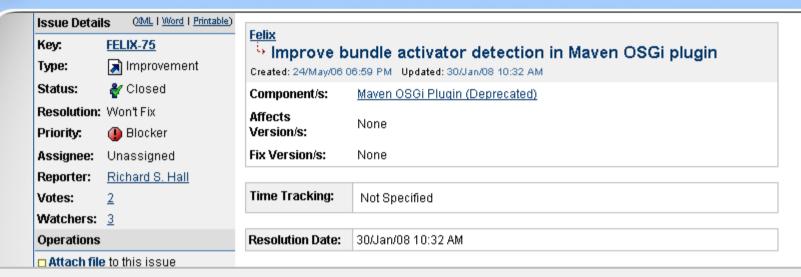


Issue tracker

- Make sure you have and use an issue tracker
- Allow people to register on the issue tracker for
 - Issue creation
 - Patch submission
 - Commenting on issues
- Send issue tracker updates to the mailing list



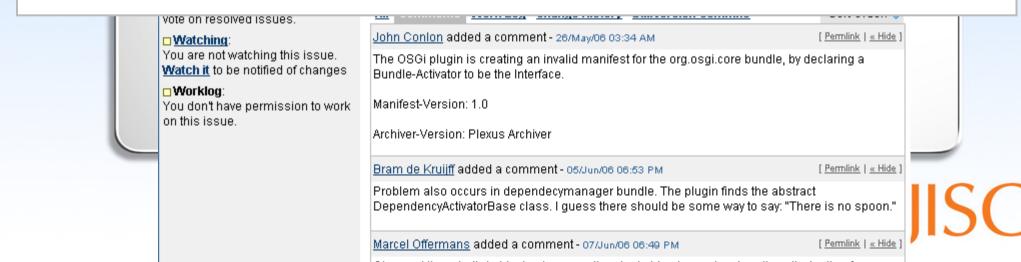




Bram de Kruijff added a comment - 05/Jun/06 06:53 PM

[Permlink | « Hide]

Problem also occurs in dependecymanager bundle. The plugin finds the abstract DependencyActivatorBase class. I guess there should be some way to say: "There is no spoon."





Description

« Hide

ServiceDependency fails to invoke callback methods when implemented in superclass. The problem is in the invokeCallbackMethod method cause it will never loop. I include 2 patches. The first just fixes the loop, but I was wondering why getDeclaredMethod is used. Using getMethod instead seems to work just fine.

grz, Bram

Marcel Offermans added a comment - 08/Dec/08 01:44 PM

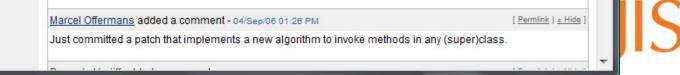
Still not correctly implemented, incorporate Bram's fixes.

Marcel Offermans added a comment - 06/Dec/06 03:24 PM

[Permlink | « Hide]

Applied the patch supplied by Bram.

Added one extra option to make sure that the method stops looking for a method if the invoked method itself throws an exception (which means we did find and invoke the method, it just did not complete normally).





BROWSE PROJECT FIND ISSUES CREATE NEW ISSUE QUICK SEARCH: **Issue Details** Attach Files Summary: ServiceDependency fails to invoke Use this form to attach multiple files to this issue. You can also explain what the files are for using a comment. callback methods when implemented in superclass (patch Attachment: Choose File included) ServiceDepe....java.patch FELIX-137 Key: Choose File No file chosen Bug Bug Type: The maximum file upload size is 10.00 MB. Please zip files larger than this. Status: Resolution: Fixed Comment: (an optional comment describing this update) Priority: Major Assignee: Marcel Offermans Comment: fix for multiple callbacks Reporter: Bram de Kruijff * removes recursion Votes: 0 * changes approach to breadth first Watchers: 1 Viewable By: All Users Attachment License: C Attachment not intended for inclusion Grant license to ASF for inclusion in ASF works (as per the Apache License §5) Contributions intended for inclusion in ASF products (eg. patches, code) must be licensed to ASF under the terms of the Apache License. Other attachments (eg. log dumps, test

cases) need not be.

Attach

Cancel







Patch applied in trunk

```
■ Task List 🔠 Outline 🖾
P Ja N NS O Nr □
                                                                                                                 invokeAdded(ServiceReferer 📤
        private void invokeCallbackMethod(Object instance, String methodName, Service
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             Class currentClazz = instance.getClass();
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            boolean done = false:
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            while (!done && currentClazz != null) {
                                                                                                                 invokeRemoved(): void
                 Class trackedServiceName:
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                 synchronized (this) (
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                      trackedServiceName = m trackedServiceName;
                                                                                                              ■ makeUnavailable() : booleani
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                 done = invokeMethod(instance, currentClazz, methodName,
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                      new Class[][] {{ServiceReference.class, trackedServiceName}, {Ser
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                      new Object[][] {{reference, service}, {reference, service}, {refe
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                      false);
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                 if (!done) {
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                      currentClazz = currentClazz.getSuperclass();
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                                                                                                              o setAutoConfig(boolean) : Se
             if (!done && currentClazz == null) {
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                 throw new NoSuchMethodException(methodName);
                                                                                                              o setCallbacks(String, String):
                                                                                                              o setCallbacks(String, String, S
                                                                                                              n setCallbacks(Object, String,
                                                                                                              private boolean invokeMethod(Object object, Class clazz, String name, Class[]
                                                                                                                 ensureNotActive(): void
             Method m = null:
                                                                                                              for (int i = 0; i < signatures.length; i++) {</pre>
                                                                                                                 getAutoConfigName() : Strin
                 Class[] signature = signatures[i];
```





SVN used to trace IP and kudos

```
Task List 🔠 Outline 🛭
P Ja N NS O
                                                                                                                       invokeAdded(ServiceReferer 📤
        private void invokeCallbackMethod(Object instance, String methodName, Service
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             Class currentClazz = instance.getClass();
                                                                                                                       invokeChanged(ServiceRefer
             boolean done = false;
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    marrs 483287 06-Dec-2006 23:21
                                                                                                                       invokeRemoved(): void
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    FELIX-137 Applied the patch provided by Bram with a small difference: if the invoked method itself throws an exception, we stop looking for a method.
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                  done = invokeMethod(instance, currentClazz, methodName,
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                       new Object[][] {{reference, service}, {reference, service}, {refe
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                       false):
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                       currentClazz = currentClazz.getSuperclass();
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             if (!done && currentClazz == null) {
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                  throw new NoSuchMethodException(methodName);

    ⊚ o setCallbacks(String, String):

    n setCallbacks(Object, String,

    setCallbacks(Object, String,

        private boolean invokeMethod(Object object, Class clazz, String name, Class[]
                                                                                                                       ensureNotActive(): void
             Method m = null:

    toString(): String

             for (int i = 0; i < signatures.length; i++) {</pre>
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                  Class[] signature = signatures[i];
```



Results at GX

- Apache Felix and Jackrabbit part of current release
- GX has committer in Apache Jackrabbit
- GX is member of expert group JSR-283 for next version of JCR





To summarise...

- Have a good public website
- Use a version control system
- Have public mailing lists
- Use the mailing list wherever possible
- Create and maintain an issue tracker
- Allow public registration on issue tracker





.. and link the tools!

- Promote the issue tracker to community
- Have issue tracker updates sent to the list
- Mention relevant issue number in commit log





First steps in open development

- We can help:
 - http://www.oss-watch.ac.uk
 - info@oss-watch.ac.uk

Questions?

