

How to cook your BPEL manager

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1 Document Goal

The goal of this document is to provide you the information necessary to transform an Apache ODE installation into a BPEL manager.

Installation and configuration of Apache ODE and Apache Tomcat are outside the scope of this document.

1.1 Document Conventions

In this document we will refer to the version of the Spagic platform as {SPAGIC_VERSION}.

Current Spagic release is 3.0.0.

2 Versions History

Version/Release n° :	1.0	Date	26/10/2009
Description	First release (English version)		
Version/Release n° :	2.0	Date	07/05/2010
Description	Updates for Spagic 3.0.0		

3 BPEL manager

Install Apache Tomcat 6.0.0.

Install the latest stable release of Apache ODE1.3.3.

ODE can be deployed in two different environments: as a simple Web Service in Axis 2 or as a JBI service assembly.

Choose the ODE distribution bundled in a WAR.

You can retrieve all the files and artifacts necessary to this customization from the package *spagic-bpel-manager{SPAGIC_VERSION}.zip*.

For the installation details see: <http://ode.apache.org/user-guide.html>.

Copy in <TOMCAT_HOME>/webapps/ode/WEB-INF/lib the following libraries:

- slf4j-api-1.5.8.jar
- logback-classic-0.9.17.jar
- logback-core-0.9.17.jar
- dom4j-1.6.1.jar
- xstream-1.3.jar
- hibernate3.jar
- servlet-bridge.jar
- spagic-client-api.jar
- spagic-extension-ode.jar
- spagic-monitor-ode.jar
- spagic-monitor-core.jar
- metadb-model.jar
- cglib2.1.2.jar
- asm-1.5.3.jar

You should install also the database drivers jars otherwise to the Tomcat lib folder.

Copy in <TOMCAT_HOME>/webapps/ode/WEB-INF/classes the hibernate.cfg.xml file.

Create in <TOMCAT_HOME>/webapps/ode/WEB-INF/conf a new file *ode-axis2.properties* containing the following line:

ode-axis2.event.listeners=org.spagic.monitoring.ode.listeners.OdeListener

4 BPEL manager with ODE2.0-beta2

Install Apache ODE2.0-beta2, if you want to use the BPEL extensions.

Follow the instructions in the previous paragraph to install it.

In ODE2.0-beta2, in the folder <TOMCAT_HOME>/webapps/ode/WEB-INF/conf, the file *ode-axis2.properties* already exists, modify it adding the following line:

```
ode-axis2.event.listeners=org.spagic.monitoring.ode.listeners.OdeListener.
```

4.1 Configure ODE using Extension

First of all you need to follow the instruction to Embed Spagic in a war application described in document **Spagic3 – Deployment Models.doc**.

The next step is to install the jar implementing the extensions in the <TOMCAT_HOME>/webapps/ode/WEB-INF/lib folder.

Register the extension in the *ode-axis2.properties* adding the following lines to the file

<TOMCAT_HOME>/webapps/ode/WEB-INF/conf/ file *ode-axis2.properties*.

```
ode-axis2.extension.bundles.runtime=org.spagic.extensions.ode.externalservice.ExternalServiceExtensionBundle
,org.spagic.extensions.ode.relevantdata.RelevantDataExtensionBundle
```

Open the file the <TOMCAT_HOME>/webapps/ode/WEB-INF/web.xml and:

1. Add the declaration for “**Extension Spagic Servlet**” and assign a **load-on-startup-level** of “1”
2. Change the startup launch level parameters of the “**equinoxbridgeservlet**” to “2”

At the end of the modification the web.xml related to the servlet declaration looks like:

```
<web-app>
  <display-name>Apache-Axis2</display-name>
  <servlet>
    <servlet-name>AxisServlet</servlet-name>
    <display-name>Apache-Axis Servlet</display-name>
    <servlet-class>
      org.apache.ode.axis2.hooks.ODEAxisServlet</servlet-class>
    <load-on-startup>1</load-on-startup>
  </servlet>
  <servlet>
    <servlet-name>AxisAdminServlet</servlet-name>
    <display-name>Apache-Axis AxisAdmin Servlet (REST)</display-name>
    <servlet-class>org.apache.axis2.transport.http.AxisAdminServlet</servlet-class>
  </servlet>
```

```
<servlet>
    <servlet-name>ExtensionSpagicServlet</servlet-name>
    <servlet-class>org.spagic.extensions.ode.servlet.ExtensionSpagicServlet</servlet-class>
    <load-on-startup>1</load-on-startup>
</servlet>
<servlet id="bridge">
    <servlet-name>equinoxbridgeservlet</servlet-name>
    <servlet-class>org.eclipse.equinox.servletbridge.SpagicServlet</servlet-class>
    <init-param>
        <param-name>commandline</param-name>
        <param-value>-console</param-value>
    </init-param>
    <init-param>
        <param-name>enableFrameworkControls</param-name>
        <param-value>true</param-value>
    </init-param>
    <init-param>
        <param-name>extendedFrameworkExports</param-name>
        <param-value>org.spagic3.client.api</param-value>
    </init-param>

    <init-param>
        <param-name>spagic.home</param-name>
        <param-value>C:\Scrappy</param-value>
    </init-param>
    <init-param>
        <param-name>frameworkLauncherClass</param-name>
        <param-value>org.eclipse.equinox.servletbridge.FrameworkLauncher</param-value>
    </init-param>
    <load-on-startup>2</load-on-startup>
</servlet>
...
...
</web-app>
```