

## How to cook your BPEL manager

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1	Document Goal .....	3
1.1	Document Conventions .....	3
2	Versions History .....	3
3	BPEL manager .....	4
4	BPEL manager with ODE2.0-beta2 .....	5
4.1	Configure ODE using Extension.....	5

## 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

<b>Version/Release n° :</b>	1.0	<b>Date</b>	26/10/2009
<b>Description</b>	First release (English version)		
<b>Version/Release n° :</b>	2.0	<b>Date</b>	07/05/2010
<b>Description</b>	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>
```