

# Web Service Integration Gateway's Installation

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## 1. Introduction

This document describes steps how is the project installed. The external third party software installation is described in the first sections. The WSIG's installation is described in the section [Installation](#).

## 2. Products Required

The project requires the following products to be installed:

- [JAVA 1.4](#),
- [Apache ANT](#),
- [Apache FORREST](#),
- [JADE 3.3](#),
- [AXIS](#),
- an [XML's parser](#) for AXIS,
- [WSDL's library](#),
- [log4j](#),
- [uddi4j](#),
- access into a UDDI registry.
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The list item is bound with corresponding section, where an installation is described. Information is included about reasons in sections, what is the purpose of a specific product.

### 2.1. JAVA's Installation

The Java installation notes are available at [JAVA-1.4](#) home page. The installation steps are described in links per an architecture on the page.

The required version of the JAVA is 1.4 for the WSIG. A new JAVA version 1.5 has a problem with [AXIS 1.1](#).

### 2.2. Apache Ant's Installation

The Apache [Ant](#) is needed to build the WSIG project. The Ant's documentation describes installation's steps.

### 2.3. Apache Forrest's Installation

The documentation is managed by the Apache Forrest. The project Apache Forrest may be downloaded from [Forrest home page](#). An installation are provided with the package.

### 2.4. JADE's Installation

The JADE's package is located at [JADE's site](#). Installation's details are packaged in the JADE. The WSIG is add on software for the JADE. The JADE 3.3 is tested for this release of the WSIG.

## 2.5. AXIS's Installation

SOAP's messages are handled by the soap manipulation interface. The AXIS project provides the implementation of the interface. The [AXIS-1.1](#) is used currently. After downloading, .jar files are placed into lib/axis-1.1 directory.

The version 1.1 requires the JAVA in version 1.4. A new AXIS version may be runnable in JAVA >1.4.

An XML's parser is needed for the AXIS. The [Xerces-2.6.2](#) is one of the free available. Xerces .jar's files are placed into lib/xerces-2\_6\_2 directory.

## 2.6. WSDL Library's Installation

The WSDL's files describe a Web Service. The [WSDL4j-1.4](#) is used to manipulate with this format from JAVA programmes. After downloading, the .jar file is placed into lib/wsdl4j-1.4 directory.

## 2.7. Log4j's Installation

The logging is done by [log4j](#) project. Actually, the .jar file is provided by the AXIS and is located in directory lib/axis-1\_1/lib.

## 2.8. The uddi4j's Installation

An access into a UDDI's registry is done by [uddi4j](#) project. The project provides a JAVA access into a UDDI registry. After downloading, the .jar file is placed into lib/uddi4j-2\_0\_2 directory.

Note: up to now (2005 Nov) the uddi4j is not accessible. It seems a new access method into UDDI is established. See technical note [Generating a JAX-RPC Client for UDDI 3.0.2](#) for details. A local copy of [uddi4j-bin-2\\_0\\_2.zip](#).

## 2.9. The UDDI Registry

An access into a UDDI v2.0 registry is required to provide information about JADE's services registered into the WSIG. The external Web Service client and server does requests for an access information. The Web Service side contacts the UDDI at first.

The jUDDI implementation with the mysql database may be used as a UDDI registry. These products are available free. The [juddi-0.9rc3](#) is tested. The installation instructions are provided with jUDDI package. They are more complex and there is small text

document [jUDDI\\_install.txt](#) related to WSIG's requirements only. (Please, create your publisher information and create your business records. Oderservice, a connection will be rejected.)

### 3. Installation

The product is extracted into JADE directory add-on. Relevant products have been installed as is mentioned in section [Products Required](#). The package comes with a .jar library precompiled. A new recompilation may be initiate by running `ant jar` in WSIG's directory. A documentation is able to be recompiled by typing `forrest` in doc directory. A result is stored into doc/build directory.

#### 3.1. WSIG's Configuration

The configuration file `wsig.properties` is located in directory, where the WSIG runs typically. The original one is placed in misc directory. The correct values are edited in this file. It is suitable to change lines with properties followed:

**wsig.host.name**

the host name of the machine, where the WSIG runs, (

`wsig.host.name=pc7` )

**wsig.host.port**

a port number, where a gateway will be worked at ( `wsig.host.port=2222` )

**wsig.agent\_id**

agent ID of a gateway, the host name part must be changed according machine's host name. To leave a host name as localhost brings identification problems. ( `wsig.agent_id=wsigs@pc7\ :1099/JADE` )

**uddi.wsig\_businessKey**

a business key of your business entity in a UDDI repository (

`uddi.wsig_businessKey=8C983E50-E09B-11D8-BE50-DA8FBF3BDC61` )

**uddi.userName, uddi.userPassword**

a user name and a password into the UDDI repository (

`uddi.userName=jna` and `uddi.userPassword=somepassword` )

**uddi.lifeCycleManagerURL**

access point into the UDDI repository (

`uddi.lifeCycleManagerURL=http\://localhost\ :8080/jUDDI/publish` )

**uddi.queryManagerURL**

access point into the UDDI repository (

`uddi.queryManagerURL=http\://localhost\ :8080/jUDDI/inquiry` )

Startup files require a change, when they are running outside a localhost. Please, change

host name in `wsig.bat`, `run_TestAgentClient.bat`, and `run_TestAgentServer.bat`. The script's name ends with the extension `.sh` under the UNIX.

A level of debug messages are set in `log4j.properties` file. The `misc/log4j.properties.txt` may be copied into running directory. The extension `.txt` must be cut off. It may be changed then.

### 3.2. WSIG's Running

Scripts must be run in the following order:

1. `run_jade_main.bat`
2. `wsig.bat`

or under the UNIX:

1. `run_jade_main.sh`
2. `wsig.sh`

It is possible to start WSIG's GUI. Please, edit `wsig.bat` or `wsig.sh` script to append `"-gui"` parameter after last command in the script. There are some examples available by menu selection. They are provided as tuples: a registration and an invocation. At first, the registration one must be run and then invocation is possible to perform. The google search example requires to enter your google's ID into the `wsig.properties`.

### 3.3. WSIG's Examples

Examples for testing purpose are placed in `misc` directory. Unix versions have extension `.sh` instead of `.bat`. After running `TestSOAPServer` the `TestAgentClient` invokes a service.

1. `run_TestSOAPServer.bat`
2. `run_TestAgentClient.bat`

The second examples demonstrate an agent service, which is invoked by Web Service client.

1. `run_TestAgentServer.bat`
2. `run_TestSOAPClient.bat`