



# **Funambol PIM Listener**

## **Quick Start Guide**

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# 1. Introduction

The Funambol PIM Listener monitors the ds server pim database schema and if it detects some pim data out of sync a notification is sent to the Funambol engine, which, if correctly configured, notifies the devices out of sync that initiate a new synchronization process in order to have all their data up to date.

## 1.1. Bundle Package or Individual Download

The Funambol PIM Listener software is included in the Funambol DS Server bundled package. This package is available for the convenience of those who want to quickly implement an operational synchronization server. For details on the server bundle, see the *Funambol DS Server Administration Guide*.

The pim listener software is also distributed as separated zip file. This archive file is available for those who want do not use the bundled package (i.e., those who have implemented the Funambol DS Server with their own choice of application server, database, and so on). This document describes how to install and configure the pim listener software in this environment.

## 1.2. Prerequisites

The requirements for using the Funambol PIM Listener are as follows:

- You have installed the Funambol DS Server, an application server, JDK/JRE (1.5.0 or greater), and a JDBC compliant database on your system, or will obtain and install those components.
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- You have installed the foundation module (*funambol-foundation-x.y.z.s4j*) provided with the Funambol DS Server.

For details, see the *Funambol DS Server Administration Guide*.

## 2. Installation

This section provides details for obtaining and installing the software.

### 2.1. Obtain the software

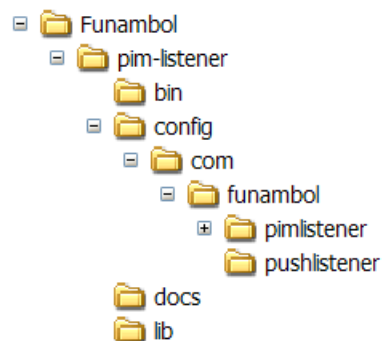
The Funambol PIM Listener software is available as follows:

Download Site: [www.funambol.com/opensource/downloads.html](http://www.funambol.com/opensource/downloads.html)

File: funambol-pim-listener-x.y.z.zip

### 2.2. Installing the Software

Unzip the funambol-pim-listener-x.y.z.zip file to Funambol DS Server home directory. Extracting the file creates the following directory structure:



Navigate to the <FUNAMBOL\_HOME>/pim-listener/bin directory and edit the following:

- in setenv.sh:

```
JDBC_JAR=
```

- in setenv.cmd:

```
set JDBC_JAR=
```

Set that parameter according to your environment (it must point to your jdbc driver jar file).

For Unix/Linux, assign the execution permission for the \*.sh files under <FUNAMBOL\_HOME>/pim-listener/bin

## 3. Configuration

This section provides details for configuring the software and setting the log.

### 3.1. Configuring the PIM Listener

Navigate to the `<FUNAMBOL_HOME>/pim-listener/config/com/funambol/pushlistener` and open the `PushListenerConfiguration.xml` file. Edit the following properties:

Property	Description
listenerId	Id of the pim listener.
maxThreadPoolSize	Specifies the max number of threads that can be used. This should be in function of the number of users to monitor.
executionPeriodHealthThread	Interval between two executions of the <code>HealthThread</code> . The <code>HealthThread</code> is a thread that a regular interval shows the pim listener status.
pollingTimeRegistryMonitor	Interval between two executions of the <code>RegistryMonitor</code> . The <code>RegistryMonitor</code> is a thread that a regular interval checks the database for changes occurred on the monitored accounts.
periodTolerance	The tolerance accepted on the period between two data check. If an user is scheduled to be checked any $x$ seconds (period), a warning is shown if he is checked after $x + \text{periodTolerance}/x$
registryTableName	The table that contains the registry
basicDataSource	The information used to connect to the database:  driverClassName: database driver  username: user name to access the database  password: password to access the database  url: database URL  maxActive: max number of active connections
WSServerInformation	The information used to call the webservice exposed by the ds server:  url: Funambol engine administration URL

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username: Funambol engine administrator username

password: Funambol engine administrator password

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## 3.2. Configuring the logging

The Funambol PIM Listener uses log4j as logging system.

In order to configure it, navigate to the `<FUNAMBOL_HOME>/pim-listener/config` directory, open the `log4j.xml` file and edit it as you like. That file will be reloaded any 30 seconds.

Please see log4j documentation for details about its configuration.

### 3.2.1. Detailed appenders

By default, two detailed appenders are configured in the PIM Listener:

- `detailed-console`
- `detailed-log-file`

Both appenders use this layout:

```
[%d{yyyy-MM-dd HH:mm:ss,SSS}] [%c] [%p] [%t] [%X{entryId}] [%X{deviceId}]
[%X{userName}] [%X{sourceURI}] %m%n
```

that creates a very enriched log message with username/deviceId/sourceUri.

## 4. Using the PIM Listener

This section provides details for starting and stopping the pim listener, and managing the user account database.

### 4.1. Start the PIM Listener

To start the pim listener, open a command prompt window and type the following at the prompt:

**Windows:**

```
> cd <FUNAMBOL_HOME>\pim-listener
> bin\pimlistener.cmd start [-debug]
```

Running the pim listener using `-debug` the output messages will be shown on the console.

**Linux:**

```
> cd <FUNAMBOL_HOME>/pim-listener
> sh bin/pimlistener.sh start [-debug]
```

Running the pim listener using `-debug` the output messages will be shown on the console.

Note that in both cases, you must set the `JAVA_HOME` environment variable before run the scripts (that variable must point to a valid JDK/JRE 1.5.x installation directory).

### 4.2. Stop the PIM Listener

To stop the pim listener, open a command prompt window and type the following at the prompt:

**Windows:**

```
> cd <FUNAMBOL_HOME>\pim-listener
> bin\pimlistener.cmd stop
```

Running the pim listener using `-debug` the output messages will be shown on the console.

**Linux:**

```
> cd <FUNAMBOL_HOME>/pim-listener
> sh bin/pimlistener.sh stop
```

If the pim listener has been started with `-debug`, `Ctrl-c` key combination will stop it.

### 4.3. Show PIM Listener status

To show the pim listener status, open a command prompt window and type the following at the prompt:

**Windows:**

```
> cd <FUNAMBOL_HOME>\pim-listener
> bin\pimlistener.cmd status
```

**Linux:**

```
> cd <FUNAMBOL_HOME>/pim-listener
> sh bin/pimlistener.sh status
```

## 4.4. Managing the user account database

Before running the pim listener you need to configure the users that must be monitored.

1. Open a command prompt window and type the following at the prompt:

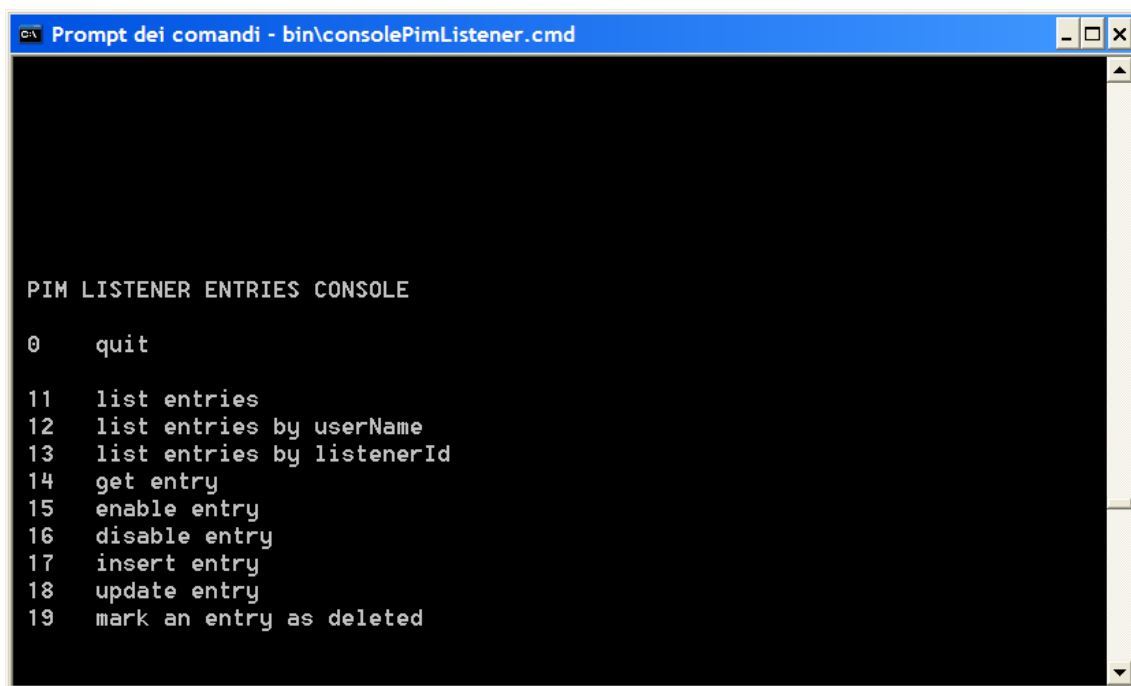
**Windows:**

```
> cd <FUNAMBOL_HOME>\pim-listener
> bin\pimlistener.cmd console
```

**Linux:**

```
> cd <FUNAMBOL_HOME>/pim-listener
> sh bin/pimlistener.sh console
```

2. The PIM Listener console window displays as shown below:



```
Prompt dei comandi - bin\consolePimListener.cmd

PIM LISTENER ENTRIES CONSOLE

0    quit

11   list entries
12   list entries by userName
13   list entries by listenerId
14   get entry
15   enable entry
16   disable entry
17   insert entry
18   update entry
19   mark an entry as deleted
```

Use the console commands for the following actions:

Command	Description
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0 - quit	Exits the console.
11 – list entries	Displays a list of all monitored users (entries).
12 – list entries by username	Displays a list of all entries associated to an user.
13 – list entries by listener id	Displays a list of all entries associated to an pim listener.
14 – get entry	Displays the entry with a specified id.
15 – enable entry	Enables the entry with a specified id.
16 – disable entry	Disables the entry with a specified id.
17 – insert entry	Inserts a new entry.
18 – update entry	Update an already existing entry.
19 – mark an entry as deleted	Marks an entry deleted. The record in the database will be automatically deleted by the PIM Listener itself.