

# **Celoxis Installation Guide**

**Version 4.3**

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# **Celoxis Installation Guide: Version 4.3**

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## **Abstract**

This document describes how to install Celoxis.

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# Chapter 1. Prerequisites

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### 1.1. Hardware (Minimum Requirements)

1. **Processor:**Minimum Intel P4 2.4 Ghz or equivalent.
2. **Memory:** Min 512MB. 1GB for better performance.
3. **Disk space:** 100MB for the software. Space requirements for your data will depend on the size of the data (number of projects, tasks, status updates etc) and documents you upload. We recommend that you consider atleast 10GB.

### 1.2. Software

1. **Operating System:** Windows (XP/2000/2003), Linux or Solaris
2. **Java:** Java SDK 1.5 from Sun Microsystems.



#### Important

Download the development kit (J2SDK) not the runtime (JRE).

3. **Database:** Microsoft SQL Server 2000, Oracle 9i or PostgreSQL 8.0. PostgreSQL is a free, open source production quality database.
4. **Mail server:** Sendmail, Postfix or Qmail.
  - a. **SMTP Support:** Celoxis sends email notifications for various reasons and requires an SMTP server such as *sendmail* for this.
  - b. **Email routing support:** Messages in discussion forums can be received and replied to from a user's email client like Outlook or Outlook Express. The reply is received by the Celoxis server and filed under the appropriate forum. Similar feature is provided for emails sent through tasks. For this Celoxis depends on a special feature where email sent to A+B@celoxis.com or A-B@celoxis.com is delivered to account A. If you need above ability then your mail server must support the above feature.
  - c. **IMAP Support:** Celoxis uses IMAP protocol to read emails.

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# Chapter 2. Database Setup

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This section only mentions tips for setting up each database. Please refer to the manuals for each database for detailed instructions.



### Warning

The license file supplied to you (installed in WEB-INF/conf/license.properties) contains the database name you informed us. You cannot change this value. Celoxis application will use this database name to connect.

## 2.1. PostgreSQL 8.0

1. Create a database with the same database name as specified in your license file.



### Important

To support internationalization remember to use UNICODE option while creating database.

2. Check the following attributes in postgresQL configuration.
  - a. `tcpip_socket = true` (On linux, `/var/lib/pgsql/data/postgresql.conf`)
  - b. In `pg_hba.conf` (On linux, `/var/lib/pgsql/data/pg_hba.conf`), uncomment the following

```
local all all trust
host all all 127.0.0.1 255.255.255.255 trust
```

This allows connections to the database from everywhere. If you are concerned about security, you will need to change this to allow only the machine running Celoxis to connect to this. If Celoxis is running on the same machine as the database, you only need the `local` entry above.

3. Create a database user e.g. *celoxis*. Grant this user all permissions on the database.
4. Give the above created user a password e.g. *celoxis*

**Setting up PostgreSQL on Windows.** We recommend using version 8.0.1 or above as it is the first PostgreSQL release to natively run on Microsoft Windows as a server. It can run as a Windows service. This release supports NT-based Windows releases like Win2000, XP, Win2003.

## 2.2. Oracle 9i

1. Create a database with the same database name as specified in your license file.



### **Important**

To allow non-English text to be entered into Celoxis, specify UTF8 character set for your database.

2. Create a database user e.g. *celoxis*. Grant this user all permissions on the database. Also give this user unlimited quota for tablespace users.

## **2.3. Microsoft SQLServer 2000/2005**

1. Create a database with the same database name as specified in your license file. The collation name should be: `SQL_Latin1_General_CP1_CI_AS`. Note that this does not affect your ability to put non english characters in Celoxis.
2. Create a login *celoxis* (with SQL Authentication) with password *celoxis* and add the corresponding user to the celoxis database. Note: the login celoxis must have roles public, db\_owner, db\_datareader, db\_datawriter permissions
3. Give the above created user a password e.g. *celoxis*.

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### 3.1. Before you begin

1. Check whether you have installed JDK 1.6 and have the database up and running.
2. Set the JAVA\_HOME environment variable to the directory in which JDK 1.6 was installed. JAVA\_HOME should be set in a way so that JAVA\_HOME/bin should contain the java executable.

On Windows: My Computer->Properties->Advanced->System variables.

3. You should have received a license.properties file in email from Celoxis that contains your license information. Save that file to desktop. You will be asked to upload this file during the installation process.
4. Gather the database information: database name, login, password. You will be asked to input these during the installation process.

### 3.2. Downloading and Starting the Celoxis Server

1. Obtain Celoxis binaries via ftp. (Celoxis support will give you further instructions)
2. Create a folder `C:\celoxis` on Windows and `/usr/local/celoxis` on Unix/Linux.
3. Place the zipped file in that folder and unzip it.
4. You should now have `C:\celoxis\psa_X.Y.Z` directory. This directory should have the `bin` directory. On windows browse to this folder. On Unix/Linux go to this folder using a terminal window.
5. Double click on `startup.bat` (or run `startup.sh` from the command line on Unix/Linux) to start Celoxis. On Windows, this will open a window. do not close this window.
6. Celoxis server is now running and ready to be installed.

### 3.3. Starting the Installation Process

Open `http://<server>:8888/psa/Install.do` in a browser and follow the instructions

## 3.4. Configuring Mail Server

Before you start using Celoxis, you need to configure Celoxis with the mail server information. Read [mail server setup](#) for detailed information on how to do this.

## 3.5. Administrative Setup

Login as administrator and:

1. Complete the information about your company.
2. Setup holidays.
3. Setup working hours.
4. Add users.

## 3.6. Celoxis as a Windows Service



### Important

Before you install Celoxis as a service, ensure that application has been installed successfully

#### To install Celoxis as a Service :

1. Open a command prompt (*if you are using Vista or Windows 2008 server, you will need to run the command prompt using "run as administrator"*)
2. In the command prompt, confirm that the JAVA\_HOME variable is set to the JDK base directory by typing the command: **echo %JAVA\_HOME%**
3. cd to <CELOXIS-INSTALL-DIR>/psa\_x.y.z/bin directory
4. Install the service by typing the command: **service.bat install**
5. The above step will register a service by the name of Celoxis
6. Go to Control Panel -> Administrative Tools -> Services -> Celoxis and right click on Properties to verify the settings are correct

#### To remove Celoxis as a Service :

1. Stop the service. Go to Control Panel -> Administrative Tools -> Services -> Celoxis and stop the service.
2. Open a command prompt (*if you are using Vista or Windows 2008 server, you will need to run the command prompt using "run as administrator"*)
3. cd to <CELOXIS-INSTALL-DIR>/psa\_x.y.z/bin directory
4. Remove the service by typing the command: **service.bat remove**

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# Chapter 4. Starting and Stopping Celoxis

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### 4.1. Starting the application

1. Go to the `bin` sub directory of `psa_x.y.z`
2. If on windows, double click `startup.bat`. This will open a terminal window. Do not close this window.

If on Linux, run `startup.sh` from the command shell.

3. Celoxis is now running

### 4.2. Stopping the application

1. Go to the `bin` sub directory of `psa_x.y.z`
2. If on windows, double click `shutdown.bat`.

If on Linux, run `shutdown.sh` from the command shell.

3. Celoxis is now stopped

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Celoxis sends email notifications for various events (e.g reminders to events, task updates to managers, etc.) and requires an SMTP server. Celoxis also requires an email account for itself to receive emails for various features. (e.g participation in forums via email, auto-filing of email in tasks, etc.). Ask your administrator to create an account. We recommend the username "celoxis".

If you do not have a mail server, skip this section, otherwise the configuration can be entered using the Edit Settings screen (Toolbar#Setup#Site).

## 5.1. FAQ about Mail Server settings

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### 5.1.1. Mail sending fails for email addresses external to the organization.

When you try to send an email to address external to you organization, your SMTP mail server is responsible for relaying. The configuration of the SMTP mail server determines whether such relaying is allowed, and which addresses are considered internal vs. external.

Check the following

1. Which SMTP Mail Server do you use for sending mails to external address? Are you using the same SMTP Server for celoxis?
2. Does Authentication happen on the SMTP Server? If yes which User name and password have you set in mail client for SMTP Authentication? Also check the SMTP server authentication settings in Celoxis.

### 5.1.2. How to disable all email notifications

Every user can subscribe/unsubscribe to email notifications. However, if it is required that no emails be sent out for/to any user, then un-check the 'Email Notifications' option on the Settings form.

### 5.1.3. Can one use their ISP for SMTP or does one need to set up an internal mail server?

ISP can be used.

### 5.1.4. How email filing works

When user A sends email M1 from task T1 to user B: Celoxis system stores the email in it's database, changes the reply to

```
celoxis+<control information>@company.com
```

and sends it to user B. When user B replies, the email lands up for the celoxis inbox (not user A's inbox) Celoxis periodically polls the inbox and when it finds the reply emails there, processes it by first looking at the control-information. The control information has the task and original message id encoded in it. After the replied email is filed, celoxis sends the email to user A (again with the reply-to header changed to

```
celoxis+<control-info>@company.com
```

### 5.1.5. Improving performance while sending email

If the result of any action causes emails to be delivered, then the email delivery takes place before the action is completed and control returned to the user. The rationale is that in case of any errors the user is notified right then and there. If however, your mail server is slow in delivering emails, you can turn on *Threaded Delivery* using the Edit Settings screen (Toolbar#Setup#Site). When this option is turned on, emails will be delivered in the background, thus improving performance for the end users.

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# Chapter 6. Allocating Memory to Tomcat

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### 6.1. Allocating Memory

1. Stop tomcat.
2. Set an environment variable CATALINA\_OPTS in system variables.
3. **On Win2000/XP:**Set a system environment ( My Computer -->Properties --> Advanced --> Environment Variables -- Under the System variables section add variable CATALINA\_OPTS )
4. **On Unix:**Set the environment variable for the user that starts Tomcat. e.g if you login in as root and then run startup.sh, then set this variable in root's corresponding profile file (.bashrc/.cshrc) depending on the shell you use.
5. If the Celoxis server has 1GB of memory then set environment variable CATALINA\_OPTS to -Xmx512M. If the system has memory 2GB then set it to -Xmx1024M. (Note the dash in front of the X)
6. Start Tomcat.

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# Chapter 7. Disable Directory Listing

When people view `http://<server:8888>/psa` they see the entire directory listing. To disable this directory listing see steps below

1. Open the file `web.xml` under `<celoxis-install-directory>/tomcat/conf` in
2. Look for section like this... 

```
<servlet> <servlet-name>default</servlet-name> <servlet-class> org.apache.catalina.servlets.DefaultServlet </servlet-class> <init-param> <param-name>debug</param-name> <param-value>0</param-value> </init-param> <init-param> <param-name>listings</param-name> <param-value>true</param-value> </init-param> <load-on-startup>1</load-on-startup> </servlet>
```
3. Change `true` (highlighted above) to `false`
4. Save file
5. Restart Tomcat

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# Chapter 8. Accessing Celoxis using SSL

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When web applications are being accessed across the internet, there is always the possibility of usernames and passwords being intercepted by intermediaries (eg. between your computer and the server). It is often a good idea to enable access via HTTPS (HTTP over SSL), and require its use for pages where passwords are sent. Celoxis is bundled with a self-signed certificate and is accessible with SSL using: `https://<server-name>:8843/psa/user.do`

In case you do not want to use the default self-signed certificate, and want to generate your own certificate or use one provided by companies like Verisign, Thawte, etc. Please read [Tomcat documentation](http://tomcat.apache.org/tomcat-5.5-doc/ssl-howto.html) [http://tomcat.apache.org/tomcat-5.5-doc/ssl-howto.html]. We recommend that you use the file `.keystore` already present in `psa_x.y.z` directory as your keystore file so that every time you upgrade, you will only need to copy this file over to the new directory.

In case you need to change the SSL port, you will need to edit `psa_x.y.z/conf/server.xml` file and replace 8843 with the desired value.



### Note

Any change you make to the keystore or the SSL port will need to be copied over every time you upgrade your version of Celoxis.

## 8.1. Disabling non SSL access

If you want to exclusively use HTTPS (HTTP with SSL) and disable HTTP, you will need to delete the line `<Connector port="8888"/>` in the `psa_x.y.z/conf/server.xml` file. You will also need to change the *URL prefix* to `https://<server-name>:8843` using the Edit Settings screen (Toolbar#Setup#Site). You will need to restart the server for these settings to take effect.

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## Chapter 9. Creating Subsidiaries

You can create subsidiaries/additional companies. Each subsidiary will have its own administrator, managers, users, clients. Data cannot be shared between the subsidiaries.

To create a subsidiary point your browser to: `http://<server>:8888/psa/sa.InputAddCompany.do`

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# Chapter 10. Regular Maintenance

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Maintenance includes applying patches and taking backups. It is recommended that you take a backup everyday.

## 10.1. Backups

1. Under the Celoxis install directory there is a "data" directory. This contains a variety of information including the documents that you have uploaded into the application. Back up this directory regularly.
2. You must also back up the database. The command `pg_dump -Ft -d < company nickname > [filename]` will create a dump file which can be restored using the `pg_restore` command. Please read the Postgresql administration guide for details.
3. Postgres also recommends running the command "VACUUM ANALYZE" once in a while. For this you may either connect to the database using `psql -d < company nickname >` and then run the command OR you can run `echo "VACUUM ANALYZE" | psql -d < company nickname >` from the command line directly. For details please read Postgresql Administration guide.
4. For MSSQL and Oracle backup instructions refer to their respective databases.

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# Chapter 11. What if I get errors?

If you get any errors, check if you can fix them. If not, send an email to [support@celoxis.com](mailto:support@celoxis.com) and include the exact error message. Copy and paste all the text from the window. This will help us understand the problem.



## **Important**

The database might be left in an inconsistent state. Drop and recreate the database.