

# Installation Guide for contineo

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# 1 Overview

This guide describes in detail the installation process of the document management system contineo. If this is the first time you install contineo, follow the instructions provided in section 2. If you want to upgrade from a previous version, follow the instructions in section 3.

## 2 Installation

### 2.1 Server and Database

Contineo is not an application able to run on its own. Instead, it requires a Java application server supporting the servlet specification 2.3 or higher. Contineo's developers recommend to use Apache Tomcat<sup>1</sup>, a reliable Open-Source servlet container. See the installation instructions of the application server package for information on how to set it up.

In addition you need a database management system. Contineo supports the following systems:

- Oracle 8i/9i
- IBM DB2 since 8.1
- MS SQL Server 6.5/7.0/2000
- Informix Dynamic Server 9.2/9.3
- Sybase ASE 12.5 - TDS 4.5/5.5
- Firebird since 1.5
- MySQL since 4.1
- HSQLDB since 1.7
- SAPDB since 7.0
- PostgreSQL since 7.3

Contineo is shipped with HSQLDB. This is a very simple database management system. It stores the database directly as SQL commands on the local file system. It is a good way to start, because it makes the installation far more easier. However, it is not recommended to use this database management system for any real world purpose. If you plan to use contineo in any production setting, you should install a real database management system instead.

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<sup>1</sup><http://jarkarta.apache.org/tomcat/>

## 2.2 Deployment

The actual installation of contineo starts with the deployment of contineo in your application server. To do that you have to download the binary package of contineo from the homepage. The binary package includes a file called *contineo.war*. This file contains all files needed to run contineo. If you are using Apache Tomcat, you should copy this file to the *webapps* directory and restart the server. If you are using another server, follow the deployment instructions provided. After deployment you should be able to access contineo's setup by pointing your web browser to the following URL: <http://localhost:8080/contineo/setup/>.

Hint for Oracle users: If you deploy on Oracle Application Server (like version 10.1.3.1), you have to make sure that Oracle's Toplink library is not used by contineo. You can do this in the second step of the deployment wizard by configuring the shared libraries.

## 2.3 Setup

Before you can execute the setup wizard, you will have to configure an user with the role *admin*, because the setup wizard can only be accessed by an user with that role. If you point your browser to the URL of the setup process, you will be asked for the user name and the belonging password. Only if you enter a correct login, you will be allowed to execute the setup wizard.

Configuring such an user is different for each application server. Therefore, please read the manual of your application server. For Apache Tomcat you have to edit the file *conf/tomcat-users.xml* by inserting the following lines:

```
<role rolename="admin"/>
...
<user username="admin" password="secret" roles="manager,admin"/>
```

The first line defines the role *admin*. The second line creates an user *admin* with the roles *manager* and *admin*. The password for the user *admin* is set to *secret*. After restarting Tomcat you should be able to start the setup wizard using the user account created.

Setting up contineo is easy, because a wizard will guide you through the complete setup process. At the beginning you have to select the setup language and accept contineo's end user licence. The wizard is divided into 8 steps.

In step 1 you have to specify some files to store log data. It is recommended to store all log files in the same directory. If you want to examine the log files later, you can either directly open the files on your file system or log into contineo as administrator and view the log files there. The figure

below shows the default values. Make sure that the application server you are using has write access to the directories and files!

Logging	
core	c:/contineo/data/log/contineo_core.log
admin	c:/contineo/data/log/contineo_admin.log
documan	c:/contineo/data/log/contineo_documan.log
actions	c:/contineo/data/log/contineo_actions.log
communication	c:/contineo/data/log/contineo_communication.log
searchengine	c:/contineo/data/log/contineo_searchengine.log

In step 2 you have to specify some more directories. The *docdir* entry specifies the directory where all documents handled by contineo are stored. Contineo will create a deeply nested directory structure so that later on each document has it's own directory. Here, you only specify the root directory. The *indexdir* entry specifies the location of the search index. The *userdir* entry specifies the root directory for all user directories. The figure below shows the default values.

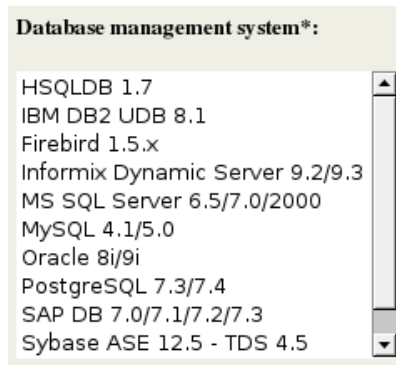
Directories	
docdir	c:/contineo/data/docs/
indexdir	c:/contineo/data/index/
userdir	c:/contineo/data/users/

In step 3 you have to define if you want to enable backup creation for each document. If the backup feature is enabled, contineo will store a copy of a document each time you change it. Besides enabling the feature, you also have to set the directory where the copies should be stored. Make sure that this directory is not located on the same hardware, otherwise it does not really makes sense. The figure below shows the default settings.

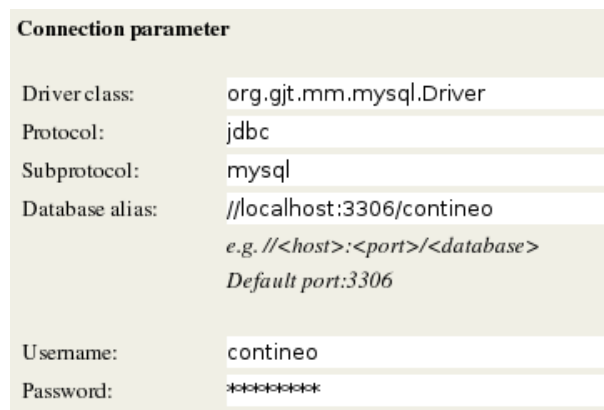
Backup	
Enable:	<input type="checkbox"/>
Backup path:	c:/contineo/data/backup/

In step 4 you have to configure the database management system you are going to use. First, you have to select if you want to use the internal database management system or an external one. If you select the internal one, you have to specify the directory where the database should be stored. This is already everything required to set up the internal database system.

If you selected external database system as storage mechanism, you have to select the database management system to be used in the following screen.



Afterwards, a dialog will be presented to you where you have to specify the connection details. In the example below the MySQL database management system was selected. This database contains a database called contineo and a user contineo was created on the MySQL server to access this database. Please note that you have to create the database and the database user in advance using the administration tools provided by the database management system.



If you have successfully configured the database, contineo will create all necessary tables and insert some basic data. If everything went fine you will see a status list of the action performed on the database. It is important that behind each line an *ok* is shown. If this is not the case you should check your database settings.

In step 5 you have to specify if you want to enable contineo's web service interface. This features enables an external application to connect to contineo and to use the main parts of it's functionality like creating and updating documents. A detailed description of contineo's web service interface can be found on contineo's homepage in the documentation section.

In step 6 you specify, if you want to enable contineo's REST web service interface. This interface is provided so that contineo can be integrated with other applications like Workflow engines. If you do not need this kind of integration, you should not enable it. There is another document available describing the REST web service interface in detail.

In step 7 you have to create the administrator account. Most of the entries are optional. The administrator account is used to administrate contineo like creating user accounts, changing permissions or configuring contineo. Do not use the administrator account for ordinary day to day work. Instead, create at least one user account!



The image shows a web form titled "Create administrator". The form contains the following fields and their values:

Field	Value
Username*	admin
Password*	*****
Retype password*	*****
First name*	Admin
Name*	Istrator
Street	
Postal code	
City	
Country	
Language*	English
E-Mail*	admin@example.com
Phone	

Step 8 is the final step. It just shows you the link to contineo's entry page. By calling <http://localhost:8080/contineo/> this start page can be accessed. You should now log in using the administrator account, create some user accounts, maybe set up the initial folder structure, configure access rights to the folders, etc. You should also log in as an ordinary user and do a short test drive so that you can see if everything works as expected. Try also to shutdown and restart your application and database server, so that you see if this is also working correctly. If everything is fine, you should introduce contineo to your users. Do not forget to give them at least a short introduction to the system, so that they do not have to figure everything out by themselves!

## 2.4 Some more Remarks

There have been reports that on first usage contineo might feel a bit slow. It seems to take some time that requests get answered by the server. This is, however, just a first time effect. Internally, the application server has to compile the files send to the client on the first request. Later on, if you go

to the same page again, it will load much faster. Therefore, it is a good idea that you play around a little bit with contineo before you release it to your users.

Each user wanting to use contineo has to authenticate using his login and password. This session handling only works, if the browser accepts cookies. It is also not possible to log in to contineo using different logins with the same browser at the same time like browsing to contineo in different tabs of your browser. If you want to use different accounts at the same time, make sure to also use different browsers, because the session information is stored in the cookie and there is only one cookies for each browser.

Passwords are send to contineo in plain text. That is a security risk, if you are using contineo in a hostile environment. Therefore, you should configure your application server to use SSL encrypted transfer (HTTPS) instead of general HTTP. This is not something specific to contineo, however. You should also take this into account if you plan to use the web service interface. Here, it also makes sense to use HTTPS instead of HTTP.

One more word on hardware requirements - we found that contineo runs totally stable if it is deployed on a Tomcat server with 512 MB memory assigned. If you have less RAM or if you assign less RAM to your server, you might get Java out of memory messages. To prevent such messages, increase the memory allocated to your server.

## 3 Upgrade from a Previous Version

### 3.1 Backup First!

Before you upgrade an existing contineo installation, take the time to create a complete backup. There are different things you have to take care of. Before you start, you must shutdown contineo, so that no user can change any data anymore. In addition, you should shutdown also your servlet container, because some files are only written on server shutdown.

First, you have to backup your database. Unless you are using the file system based database HSQL DB, your database management system will provide some administration interface to do that. HSQL DB stores the database in a path you specified during setup. Look for the *context.xml* file in the *WEB-INF/classes* directory. You will find the path to the database in this file, just in case you do not know it anymore.

After you made a backup of the database, you should make a backup of all data files created by contineo. That includes the users' directories, the search indexes as well as the documents (with all old versions) stored in contineo. If you do not remember the path of the directories, start contineo and log in as administrator. Now go to the settings menu and click on *Directories*. There you will find the directories you have to backup. Another way to find out the paths is again the *context.xml* file.

The third thing you have to take care of are the settings of your installation. The settings are stored on the server in the *WEB-INF/classes* directory. You only have to backup the *context.xml* file.

Now that you have a complete backup of your data, you can go on upgrading to the new version.

### 3.2 Upgrade Procedure

Upgrading is easy. You just have to download the latest binary package, copy the files over the old installation, restore your settings and start contineo again. Here is a step by step instruction:

1. Make a backup first! For instructions see section 3.1 on page 7.
2. Download the binary package of contineo from contineo's homepage and store it on your local hard disk.
3. Extract the file you downloaded. Inside, you will find a file called *contineo.war*. You must also extract this file. To do that you can use any tool able to extract ZIP files. Or you can use the *jar* tool provided with the Java distribution. In that case you have to use the following command: *jar xvf contineo.war*.
4. Stop contineo and the servlet container, so that no user can access it anymore.
5. Delete all contineo related files deployed in the servlet container.
6. Copy all files contained in the *war* file you extracted to the previous location in the servlet container.
7. Restore your setting file *context.xml* by copying it back from your backup to the *WEB-INF/classes* directory.
8. Follow the instructions in the following sections to change for example the database structure if needed. This step must only be done, if you upgrade to a complete new version. For example, if you upgrade from version 2.1 to 2.2 you have to follow the steps, but if you upgrade from 2.2 to 2.2.1, you do not have to do anything. Make sure that you follow those specific upgrade instructions step-by-step. For example, if you plan to upgrade from version 2.0 to version 2.2, first do the steps needed for upgrading from 2.0 to 2.1 and afterwards the steps needed for upgrading from 2.1 to 2.2.
9. Restart contineo and test if everything works as expected.
10. If everything works fine, you can announce the upgrade to your users so that they can start using contineo again.



### 3.3 Upgrade from 2.0 to 2.1

There are no things to do, if upgrading from version 2.0 to version 2.1.

### 3.4 Upgrade from 2.1 to 2.2

After you restored your settings, you must make a manual change to one of the setting files. Go to the file *WEB-INF/classes/settings.xml* and insert the following line:

```
<setting name="enablerest"  
        category="webservice">false</setting>
```

Put this line at the end of the file in front of the following line:

```
</settings>
```

The line inserted above specifies, if contineo's web service interface should be enabled. If you want to enable this interface, change the word *false* into *true*. However, before you do that make sure to read the documentation about the web service interface on contineo's homepage provided in the documentation section. It is not possible to change this setting in the user interface.

### 3.5 Upgrade from 2.2 to 2.5

There were many technological changes during the development of contineo 2.5. Therefore, some changes are needed while upgrading. It is of utmost importance that you first create a complete backup as outlined in section 3.1 on page 7!!!

Till version 2.5, settings were stored in several files located in the *WEB-INF/classes* directory. Now, all settings are stored in a single file called *context.xml*. In general, you can adapt this file manually to migrate the settings, but we expect this to be error prone. Therefore, we suggest to run the setup procedure again on a blank database with no user and document files. After the setup, stop contineo and replace the newly generated database with your old one. Do the same for the user and document directories.

Before you restart, one more change to the content of the database is needed. In table *co\_menus* is a column *co\_menuicon*. Entries look like */pages/images/home.gif*, but they should look like *home.gif*. You can either change this manually or execute the following simple SQL statement:

```
update co_menus  
  set co_menuicon = REPLACE(co_menuicon,'pages/images/','')  
  where co_menuicon like 'pages/images/%';
```

## **4 Please contribute your knowledge**

The installation instructions are generic, so they do not cover steps for any specific platform. Please let us know, if there are any specific steps needed for the platform of your choice. Please share your knowledge and experience, so that not other users have to reinvent the wheel!