

openCRX QuickStart

Version 2.0



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Table of Contents

1	About this Book.....	4
1.1	Who this book is for.....	4
1.2	What do you need to understand this book.....	4
1.3	Tips, Warnings, etc.....	4
2	Prerequisites.....	5
2.1	Selection of Software Packages / Versions.....	5
2.2	JDK 5.0.....	6
2.3	Installing / Configuring Database.....	6
2.4	Installing Apache Tomcat or JBoss Application Server.....	6
3	openCRX Setup and Configuration.....	8
3.1	Overview.....	8
3.2	Verify/Create Application Server Logins.....	8
3.3	First Login / Initial Setup as admin-Root.....	9
3.3.1	Login as admin-Root.....	9
3.3.2	Create Data Segment "Standard".....	12
3.3.3	Import Codes and Data.....	14
3.3.4	Set Access Levels of Codes.....	15
3.3.5	Restarting the Application Server.....	16
3.4	Create a new User guest.....	16
3.4.1	Segment Administrator creates new Contact.....	16
3.4.2	Segment Administrator creates new User.....	20
4	Next Steps.....	22

List of Figures

Figure 1:	openCRX Login page.....	9
Figure 2:	First login with admin-Root / rootSecret.....	10
Figure 3:	Start screen of admin-Root.....	11
Figure 4:	Create a new segment named Standard.....	12
Figure 5:	Result of operation Create Administrator.....	13
Figure 6:	Load Code Tables and Data – Step 1.....	14
Figure 7:	Load Code Tables and Data – Step 2.....	14
Figure 8:	Execute Operation Set Access Level.....	15
Figure 9:	Parameters of Operation Set Access Level.....	15
Figure 10:	Result of the Operation Set Access Level.....	15
Figure 11:	First login with admin-Standard / adminSecret.....	17
Figure 12:	Create new Contact – Step 1.....	18

Figure 13: Create new Contact – Step 2..... 19
Figure 14: Create new User..... 20
Figure 15: Result of operation Create User..... 21

List of Listings

Listing 1: Console Output – JBoss startup..... 7
Listing 2: File users.properties with syntax user=password..... 8
Listing 3: File roles.properties with syntax user.Roles=role1,role2,..... 8
Listing 4: Console Output – Initialization of the openCRX servlet..... 10
Listing 5: Console Output – Importing Codes and Data..... 14

1 About this Book

This book describes what you need to get started with openCRX and how to configure openCRX. Please note that this is a guide to set up a **runtime environment**.

openCRX is the leading enterprise-class open source CRM suite. openCRX is based on openMDX, an open source MDA framework based on the OMG's model driven architecture (MDA) standards. This guarantees total openness, standards compliance, a state-of-the-art component-based architecture, and virtually unlimited scalability.

1.1 Who this book is for

The intended audience are openCRX administrators and advanced users.

1.2 What do you need to understand this book

This book describes how to install openCRX and how to configure openCRX. Even though it is possible to install openCRX without a deeper understanding of J2EE applications, application servers, and database management systems, it is still a plus if you are comfortable with these topics.

openCRX is an enterprise-class J2EE application. Installation, administration, and maintenance of such applications is somewhat more involved than running a simple *setup.exe* (or *make install*, for that matter). So please do not expect that you will manage to install openCRX in 10 minutes as even experienced administrators can easily spend an hour or more on their first install.

1.3 Tips, Warnings, etc.

We make use the following pictograms:



Information provided as a "Tip" might be helpful for various reasons: time savings, risk reduction, etc. - it goes without saying that we advise to follow our guides meticulously

meticulous \muh-TIK-yuh-luhs\, *adjective*:
Extremely or excessively careful about details.



You should carefully read information marked with "Important". Ignoring such information is typically not a good idea.



Warnings should not be ignored (risk of data loss, etc.)

2 Prerequisites

Installing openCRX is a somewhat involved process as you are required to install/configure various other components as well.



If you are not comfortable with setting up an application server, installing database management systems, building EARs, etc. you might want to have a look at the **openCRX Server Installer**. The installer will take care of all the installation tasks so that there is no need to work through this QuickStart guide.

Before you get started with the selection process, however, it is a good idea to spend some time browsing the various pages containing information about the products and reviewing the openCRX version compatibility information provided at <http://www.opencrx.org/faq.htm#versioncompatibility>.

2.1 Selection of Software Packages / Versions



In the end, you will have installed several software packages and it makes sense to write down the names and version numbers of these software packages – this information might be helpful in the future in case you require support or want to file a bug report:

Required Software Packages	Information	Name	Version
openCRX CRM Suite	www.opencrx.org	openCRX	2.0.0
openMDX MDA Platform	www.openmdx.org	openMDX	2.0.0
Java 2 Platform Standard Edition	BEA website java.sun.com	<input type="checkbox"/> BEA JRockit JDK <input type="checkbox"/> Sun J2SE JDK ...	1.5
Java Build Tool	ant.apache.org	Ant	<input type="checkbox"/> 1.7.0
Tomcat or Application Server see here for information about deploying openCRX on Tomcat	openCRX FAQ	<input type="checkbox"/> Apache Tomcat <input type="checkbox"/> JBoss ...	6._____ 4.2._
Database Management System	openCRX FAQ	<input type="checkbox"/> Oracle <input type="checkbox"/> DB/2 <input type="checkbox"/> MS SQL <input type="checkbox"/> PostgreSQL <input type="checkbox"/> MySQL ...	

2.2 JDK 5.0

Install either the Sun Java JDK 5.0 or the BEA JRockit JDK 5.0 appropriate for your platform. The JDKs are available from the following sites:

Sun JDK 5.0:

http://java.sun.com/javase/downloads/index_jdk5.jsp

BEA JRockit JDK 5.0:

http://commerce.bea.com/products/weblogicjrockit/5.0/jr_50.jsp



It is not sufficient to have a Java Runtime Environment (JRE) only. The full-blown JDK is required to run openCRX.



Don't forget to set the **environment variable** `JAVA_HOME`

2.3 Installing / Configuring Database

As far as the **database** is concerned, the openCRX FAQ might give you some guidance in making your choice (please note that the openCRX distribution includes all the required configuration and deployment files for **PostgreSQL, MySQL, MS SQL, IBM DB/2** and **Oracle**). Various openCRX installation guides for database management systems are available from <http://www.opencrx.org/documents.htm>.

The remainder of this document assumes that you decided for MySQL and hence – after following the **openCRX Installation Guide for MySQL** – you should have a working installation of the **MySQL** database before you continue with this guide.

2.4 Installing Apache Tomcat or JBoss Application Server

openCRX v2.0+ can be deployed on Apache Tomcat resulting in much reduced complexity without loss of functionality compared to the deployment on a full-blown application server. Additional information regarding the openCRX deployment matrix is available from <http://www.opencrx.org/faq.htm#deploymentmatrix>

In order to install Apache Tomcat, please refer to the Apache Tomcat installation guide available from <http://www.opencrx.org/documents.htm> or use the **openCRX Server Installer**. Using the installer both the easiest and the fastest way to end up with a working openCRX instance.

If you prefer to deploy openCRX on JBoss, please refer to the **openCRX Installation Guide for JBoss**. The remainder of this document assumes that you decided for JBoss and hence you should have a working installation of the JBoss application server before you continue with this guide.

Obviously, if you ended up making different choices, you can still follow this guide. You might have to make some minor adjustments to the instructions given here and some of our screen shots might look somewhat different from what you will see on your screen.

Assuming you have JBoss up and running, the last few lines of your console output should look similar to the following ones:

Listing 1: Console Output – JBoss startup

```
...  
17:23:05,728 INFO [Http11AprProtocol] Starting Coyote HTTP/1.1 on http-0.0.0.0-8080  
17:23:05,759 INFO [Server] JBoss (MX MicroKernel) [4.0.5.GA (build: CVSTag=Branch_4_0 date=200610162339)] Started in 32s:141ms
```



Do NOT deploy any other openCRX EARs (e.g. groupware) in addition to opencrx-core-CRX.ear before having completed the setup based on this guide.

Now you are ready to continue.

3 openCRX Setup and Configuration

Once the database is ready and openCRX properly deploys on your application server there are still a few tasks left to set up and configure openCRX. This chapter guides you through these tasks on a step-by-step basis.

3.1 Overview

Let us give you a brief overview of the tasks ahead before we get started:

- ◆ Verify/Create Application Server Logins **{openCRX/AppServer Admin}**
- ◆ First Login / Initial Setup as admin-Root **{openCRX Admin}**
 - Create Data Segment "Standard" **{openCRX Admin}**
 - Import Codes and Data **{openCRX Admin}**
 - Set Access Levels of Codes **{openCRX Admin}**
- ◆ Create a new User guest **{openCRX Admin / Segment Admin}**
 - Segment Administrator creates new Contact **{Segment Admin}**
 - Segment Administrator creates new User **{Segment Admin}**

All right, let's get started.

3.2 Verify/Create Application Server Logins

For the following steps we assume that the openCRX administrator has configured the users *admin-Root*, *admin-Standard* and *guest* with the appropriate roles on the application server. In the case of JBoss this requires creating/editing the files **users.properties** and **roles.properties** as follows:

*Listing 2: File **users.properties** with syntax user=password*

```
admin-Root=rootSecret
admin-Standard=adminSecret
guest=guest
```

*Listing 3: File **roles.properties** with syntax user.Roles=role1,role2,...*

```
admin-Root.Roles=OpenCrxRoot
admin-Standard.Roles=OpenCrxAdministrator
guest.Roles=OpenCrxUser
```



It is strongly recommended that you stay with the file-based UsersRolesLoginModule for the user **admin-Root**. This simplifies the openCRX bootstrapping.

3.3 First Login / Initial Setup as admin-Root

Connect to the login page of openCRX. The exact URL depends on your deployment details. For a standard openCRX deployment to JBoss running on your local machine and listening at port 8080 the URL is

`http://localhost:8080/opencrx-core-CRX/Login`

You should see the openCRX Login page as follows:

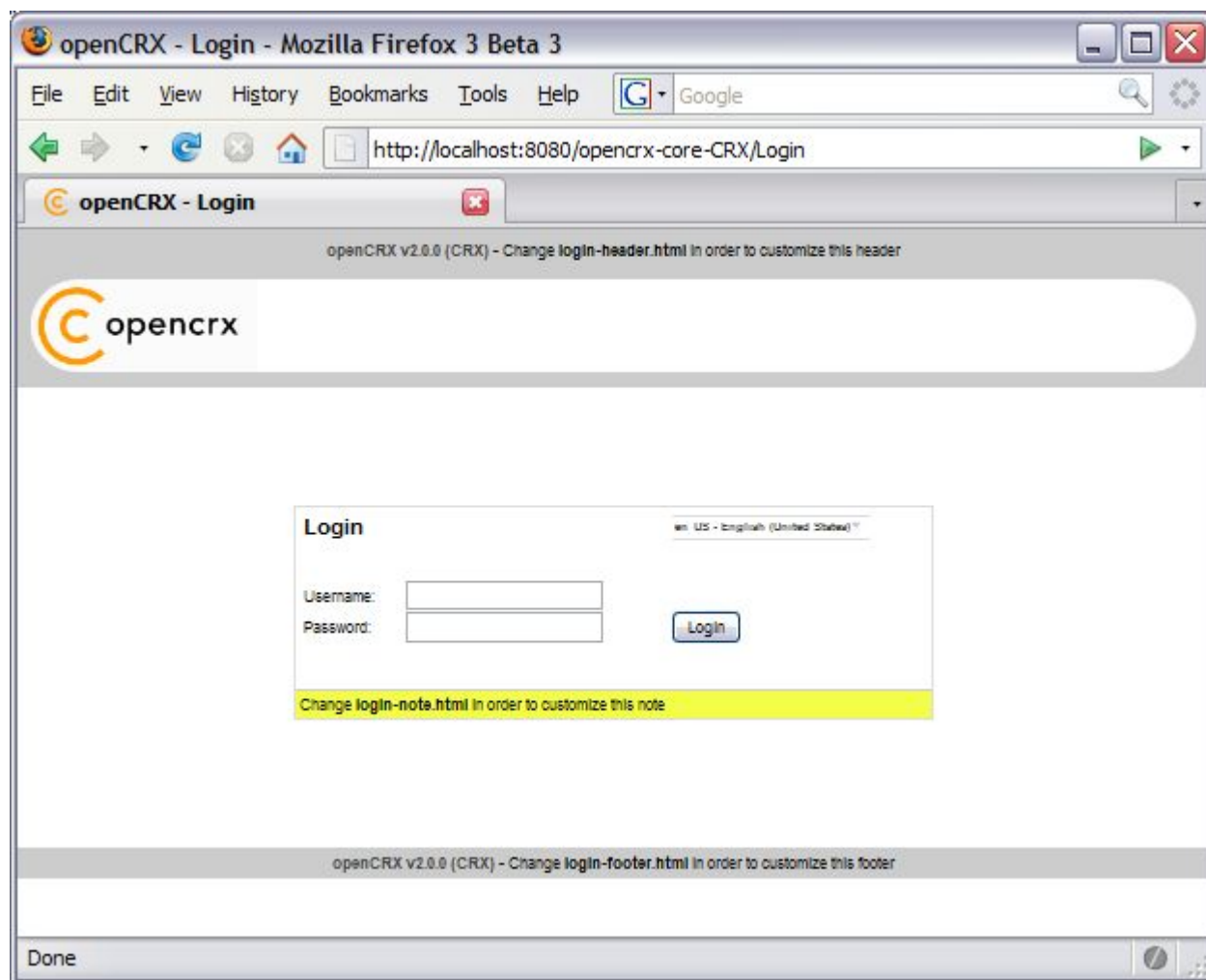


Figure 1: openCRX Login page

3.3.1 Login as admin-Root

Enter **admin-Root** into the field *Username* and then enter **rootSecret** into the field *Password* (you may have chosen a different password, i.e. enter the password you chose during installation/configuration of the application server):

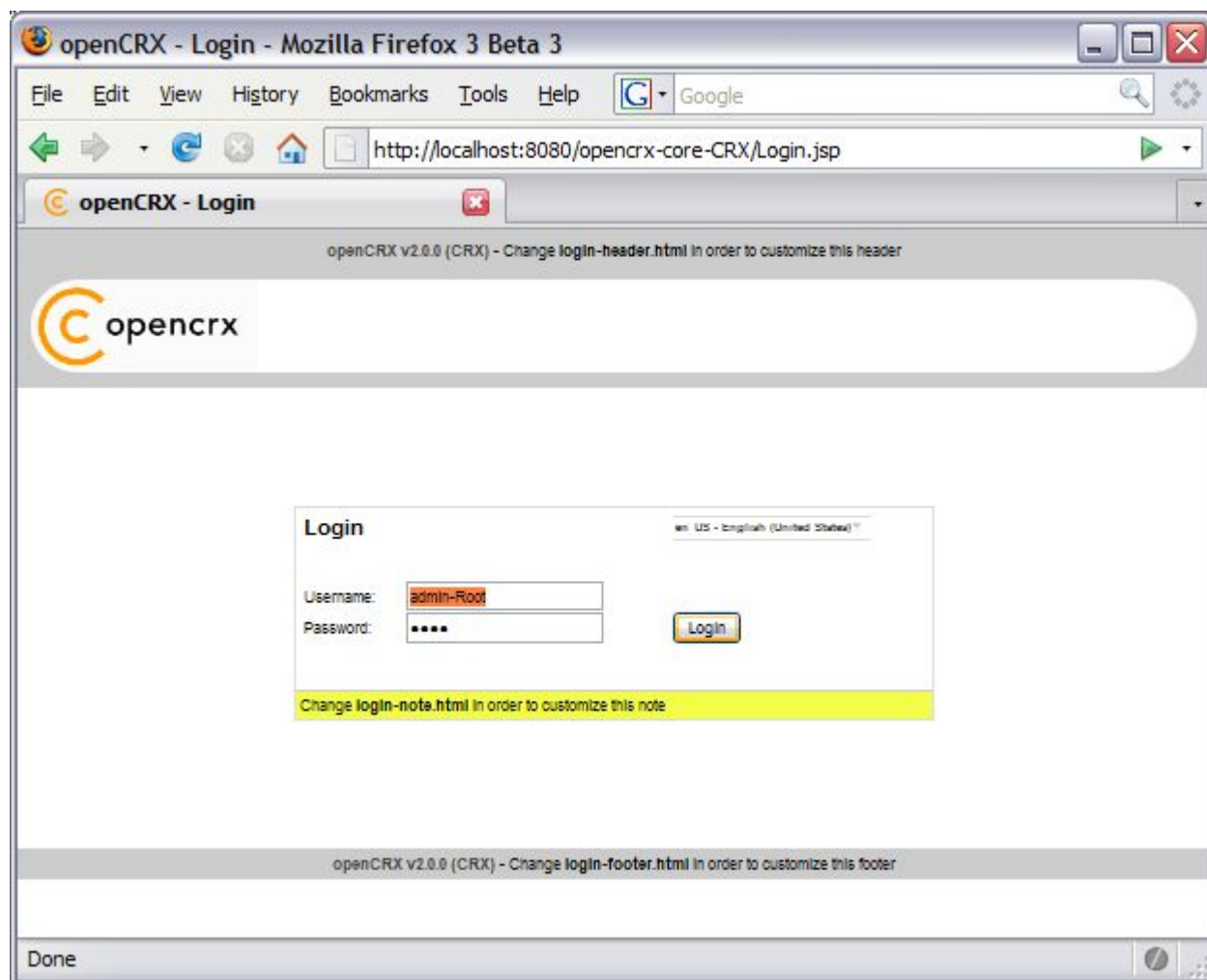


Figure 2: First login with admin-Root / rootSecret

Click the button to start the initialization process.



If you can't get past the login screen (with the correct Username and Password, of course) and the Warning “**Browser must accept cookies**” keeps showing up need to **verify your browser settings related to cookies**. If you have installed a **personal firewall** (e.g. ZoneAlarm) you also need to verify those cookie settings. **The application server must be able to create/set a session cookie.**

The openCRX servlet is initialized during this first login, i.e. don't kill the browser if it takes a while. The application console output will look similar to the following listing:

Listing 4: Console Output – Initialization of the openCRX servlet

```
10:09:48,756 INFO [STDOUT] Wed Dec 13 10:09:48 CET 2006: Login: requestURL=http://localhost:8080/opencrx-core-
10:10:23,026 INFO [STDOUT] Inspecting /WEB-INF/config/filters
```



If you see lots of error messages on the console and/or your log files grow very fast (several hundred KB if not more) then it is quite likely that your **DB connection** is not configured correctly. Please note that there is absolutely no sense in continuing before you have fixed your DB connection. You might want to verify

- the spelling of the name of your DB (e.g. **crx-CRX** vs. **CRX_CRX**)
- user name (e.g. **system**) and password (e.g. **manager**)
- permissions of the user, etc.

After the successful startup of the openCRX servlet you see the start screen as shown in the figure below. You should at least see the root objects Administration, Codes, Security Realm, Security Policies, and Security Subjects:

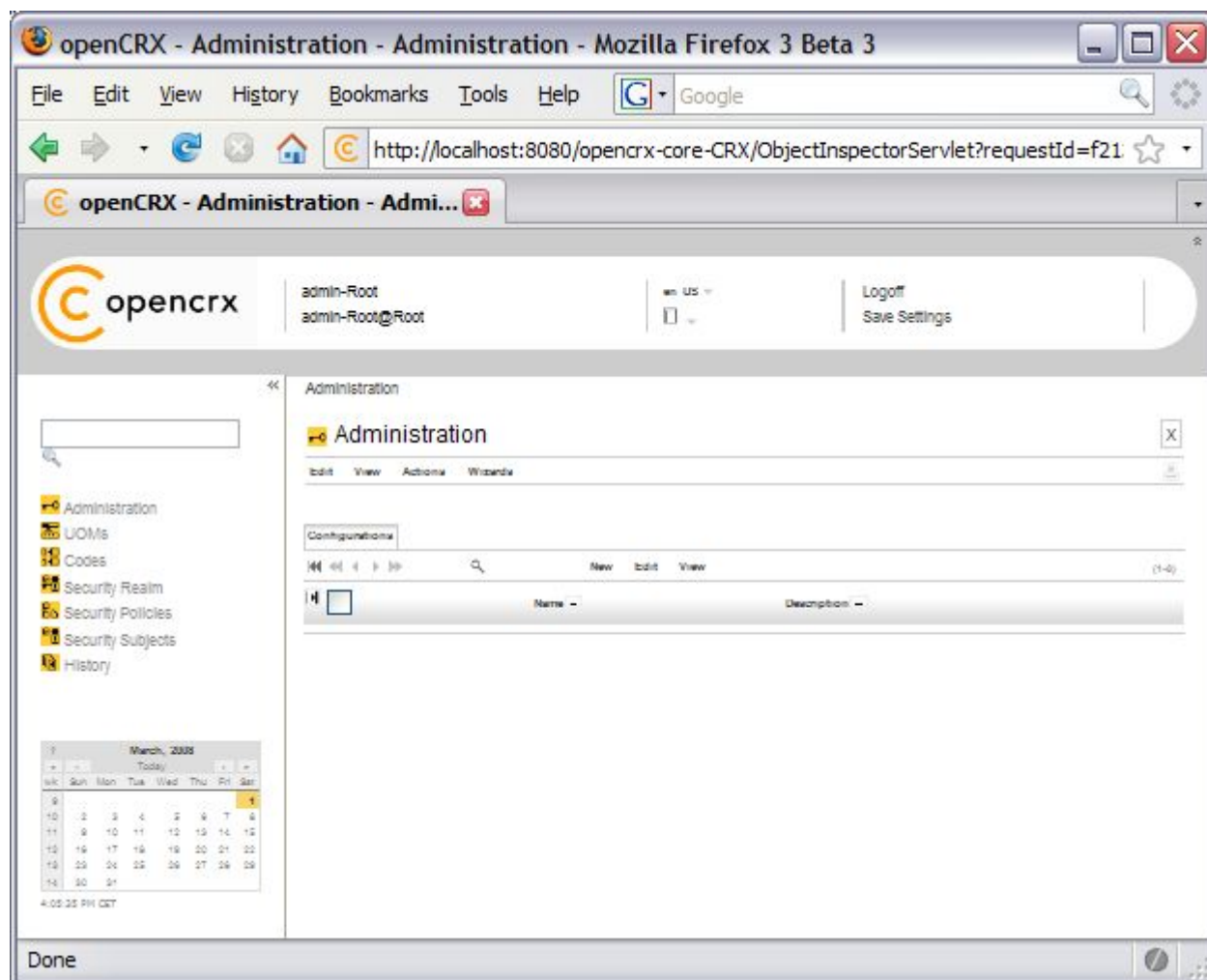


Figure 3: Start screen of admin-Root

3.3.2 Create Data Segment "Standard"

Execute the operation **Actions > Create Administrator** to create a new segment and selected default accounts (including an administrator's account which allows you to manage the newly created segment).

Set the field *Segment name* to **Standard**. Leave the field *Admin principal name* empty and set the fields *Initial password* and *Password again* to * as shown in the figure below:

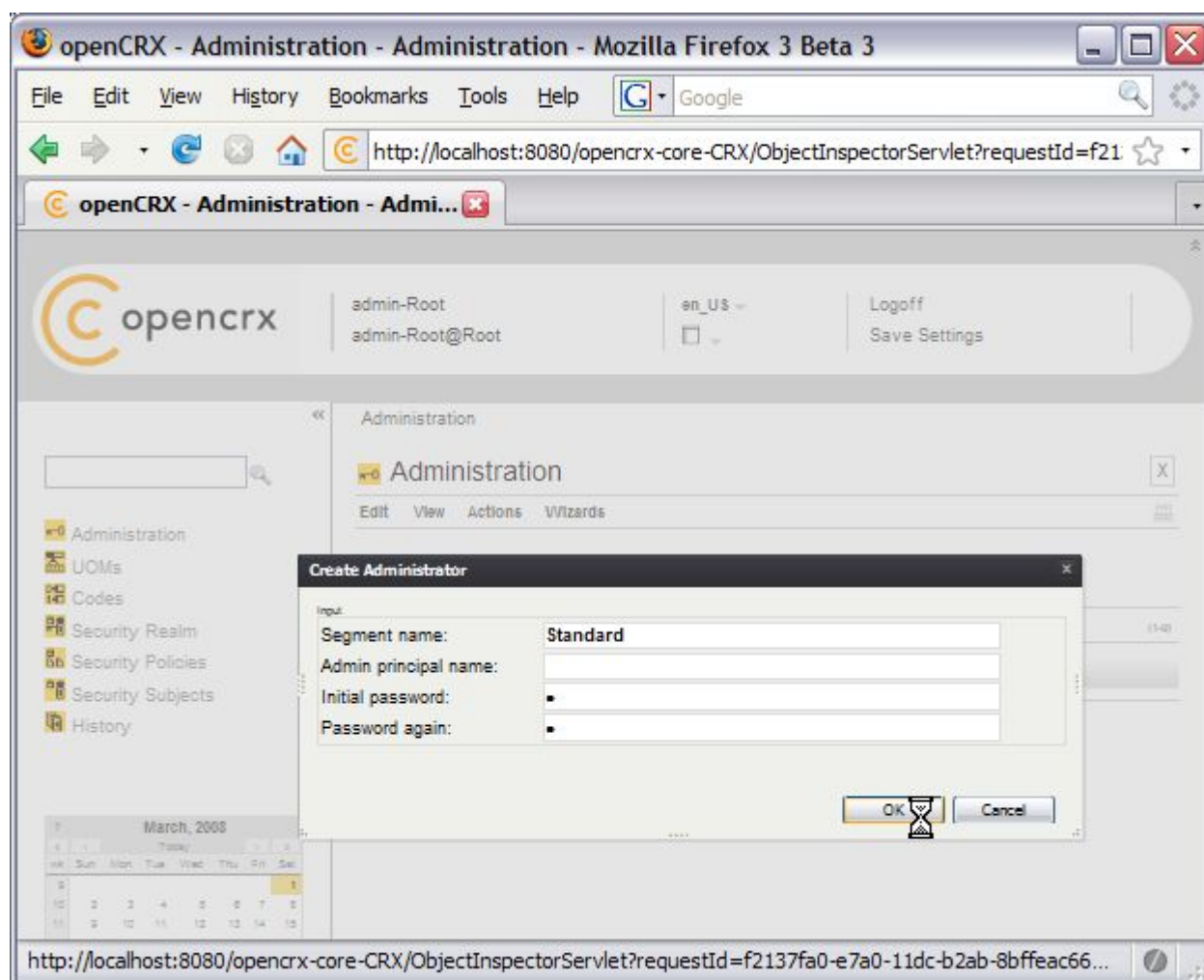


Figure 4: Create a new segment named Standard



Please verify the spelling of the segment name: **Standard** (with a capital "S").

Next you click **OK** to execute the operation **Create Administrator** which creates the segment named **Standard**. The result of executing this operation should look as follows:

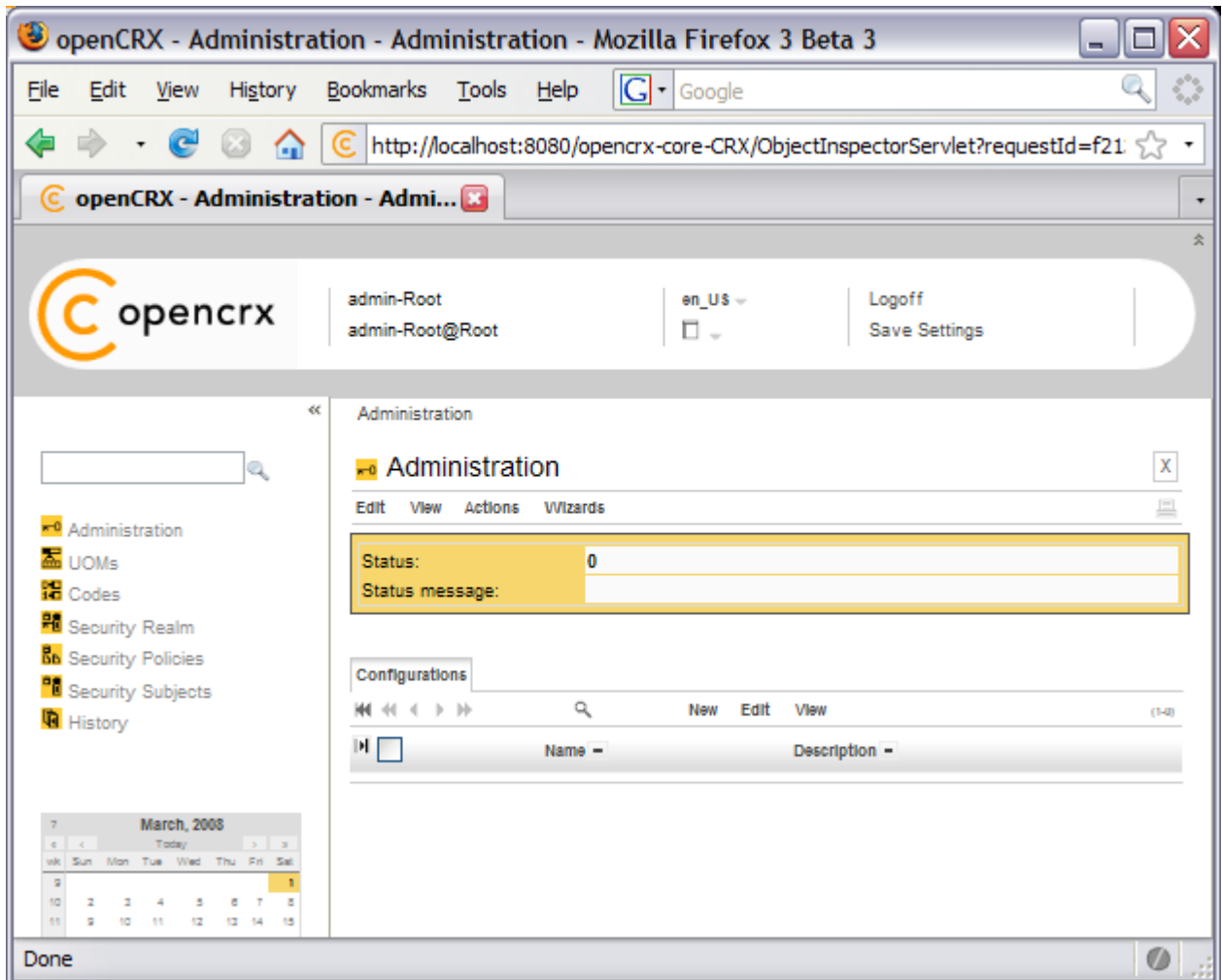


Figure 5: Result of operation Create Administrator

3.3.3 Import Codes and Data

openCRX is distributed with many code tables and several data files (e.g. unit of measurement information, standard activity management process). Code tables and data files must be imported from the provided XML files to make them available to openCRX.

Execute the operation **View > Reload** and then click **Yes** to start the import:

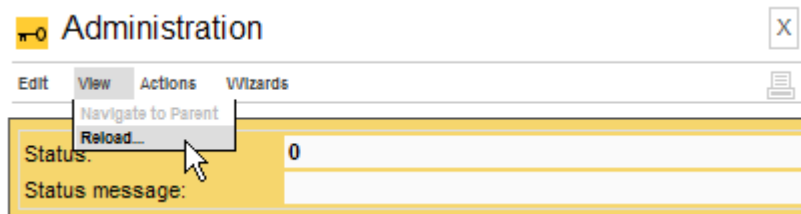


Figure 6: Load Code Tables and Data – Step 1

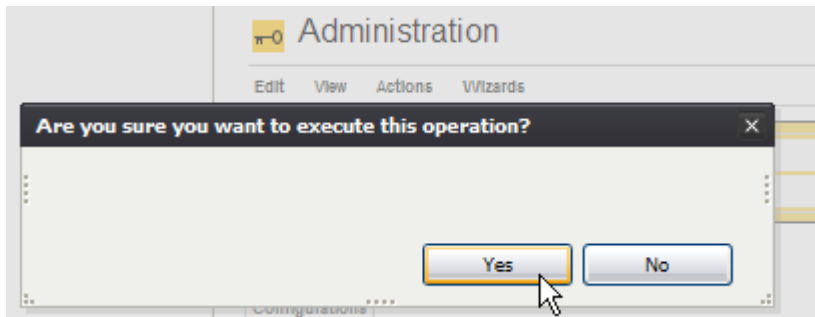


Figure 7: Load Code Tables and Data – Step 2

Please note that this operation takes some time to complete as thousands of objects are made persistent in your database during the import. The console output will look similar to the following listing:

Listing 5: Console Output – Importing Codes and Data

```

...
10:31:59,894 INFO [STDOUT] Loading codes
10:31:59,894 INFO [STDOUT] Loading /WEB-INF/config/code/Root/en_US/accesslevel.xml
10:31:59,925 INFO [STDOUT] Loading /WEB-INF/config/code/Root/en_US/accountcategory.xml
10:31:59,925 INFO [STDOUT] Loading /WEB-INF/config/code/Root/en_US/accountrole.xml
...
10:32:00,300 INFO [STDOUT] Loading /WEB-INF/config/code/Root/de_CH/accesslevel.xml
10:32:00,316 INFO [STDOUT] Loading /WEB-INF/config/code/Root/de_CH/accountcategory.xml
10:32:00,316 INFO [STDOUT] Loading /WEB-INF/config/code/Root/de_CH/accountrole.xml
...
13:18:02,441 INFO [STDOUT] Loading /WEB-INF/config/code/Root/es_CO/usageproductbaseprice.xml
13:18:02,457 INFO [STDOUT] Loading /WEB-INF/config/code/Root/es_CO/utcoffset.xml
13:18:02,488 INFO [STDOUT] Storing 1538 code entries
13:19:06,585 INFO [STDOUT] Done
13:19:06,648 INFO [STDOUT] Loading data
13:19:06,648 INFO [STDOUT] Loading /WEB-INF/config/data/Standard/bug-and-feature-process.xml
13:19:07,384 INFO [STDOUT] Storing 26 objects
13:19:10,093 INFO [STDOUT] Loading /WEB-INF/config/data/Standard/contracts.xml
13:19:10,908 INFO [STDOUT] Storing 1 objects
13:19:11,033 INFO [STDOUT] Loading /WEB-INF/config/data/Standard/products.xml
13:19:13,022 INFO [STDOUT] Storing 1 objects
13:19:13,319 INFO [STDOUT] Loading /WEB-INF/config/data/Root/uom_SI_and_Paper.xml
13:19:14,415 INFO [STDOUT] Storing 42 objects
13:19:15,903 INFO [STDOUT] Done

```

3.3.4 Set Access Levels of Codes

Navigate to the package Codes by clicking on the Root menu entry **Codes**. Then execute the operation **Security > Set Access Level** as shown below:

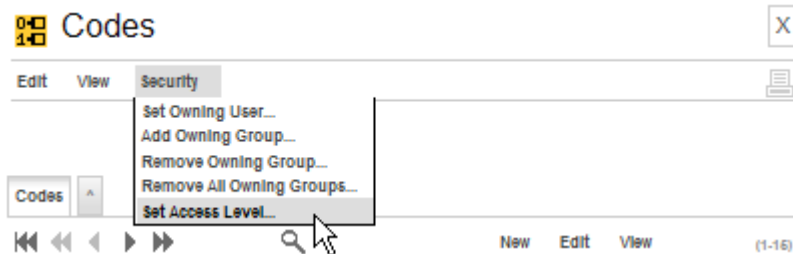


Figure 8: Execute Operation Set Access Level

Set the parameters as follows (see also figure below):

Browse access level: **[4] global**
 Update access level: **[2] basic**
 Delete access level: **[2] basic**
 Mode: **[1] recursive**

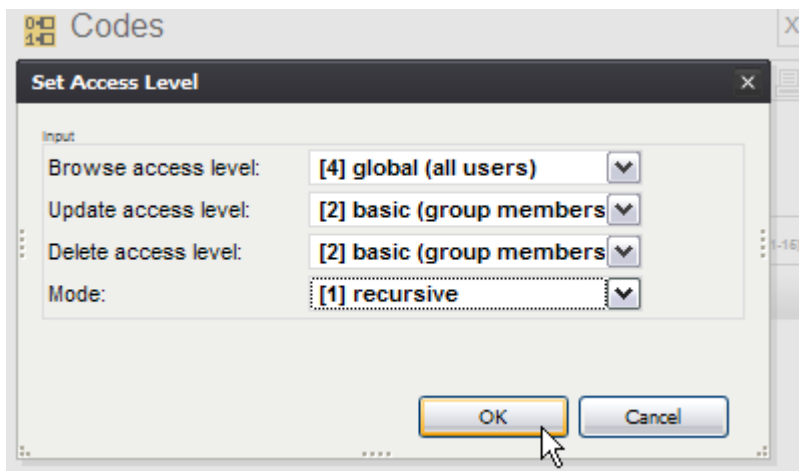


Figure 9: Parameters of Operation Set Access Level

Please note that this operation also takes a fair amount of time to complete:

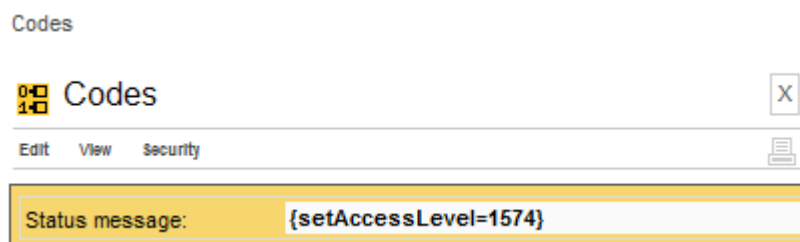


Figure 10: Result of the Operation Set Access Level

3.3.5 Restarting the Application Server

Please restart the application server. On Windows you can stop JBoss by typing <CTRL>-C into the command window.



After stopping JBoss and before restarting JBoss it is strongly advised that you delete the **tmp** and **work** directories:

```
jboss-4.2.1.GA\server\default\tmp
```

```
jboss-4.2.1.GA\server\default\work
```

On Windows you can start JBoss by executing run.bat located in the directory `jboss-4.2.1.GA\bin` (on Linux you execute run.sh).

3.4 Create a new User *guest*

Once your application server is up and running again and openCRX properly deployed, new users are created with the following steps:

1. as *admin-Standard*: create a new **Contact**
2. as *admin-Standard*: create a new **User** and link this User to the contact created in the previous step

The following sections will guide you through the creation of a new User **guest** with permission to access the previously created segment **Standard**.

3.4.1 Segment Administrator creates new Contact

Connect to the login page of openCRX. The exact URL depends on your deployment details. For a standard openCRX deployment to JBoss running on your local machine and listening at port 8080 the URL is

```
http://localhost:8080/opencrx-core-CRX/Login
```

You should see the openCRX Login page as follows. Enter **admin-Standard** into the field *Username* and then enter **adminSecret** into the field *Password* (you may have chosen a different password, i.e. enter the password you chose during installation/configuration of the application server):

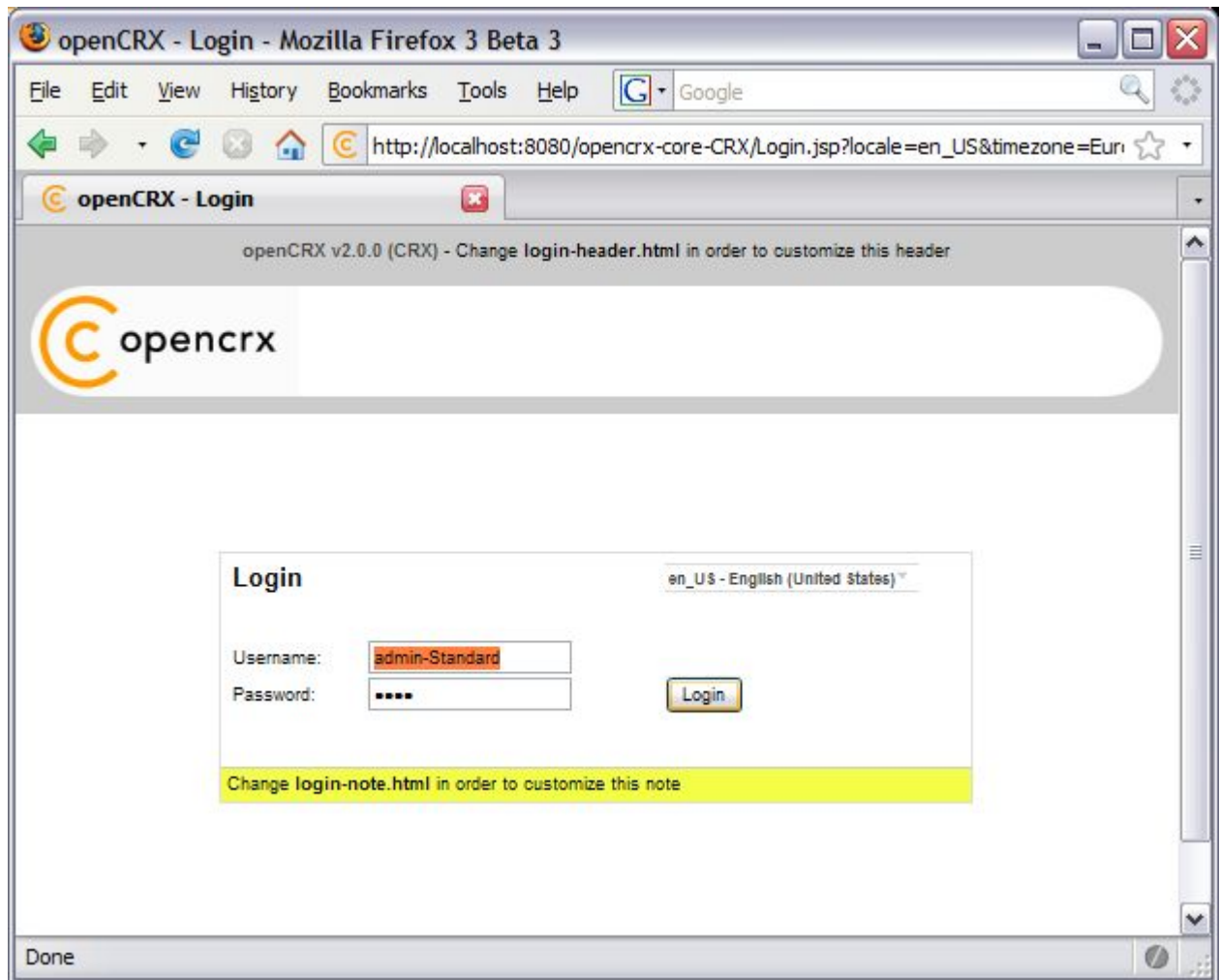


Figure 11: First login with admin-Standard / adminSecret

Click the button to start the login process.



Please note that no charts are displayed when a users logs in for the first time. Activate charts by executing the operation **View > Recalculate and Refresh**.

As Segment administrator you first have to create a new **Contact** in the package Accounts for the new user **guest**. To do so, click on the package **Accounts** in the root menu and then select the creator menu **New > Contact** as shown in the figure below:

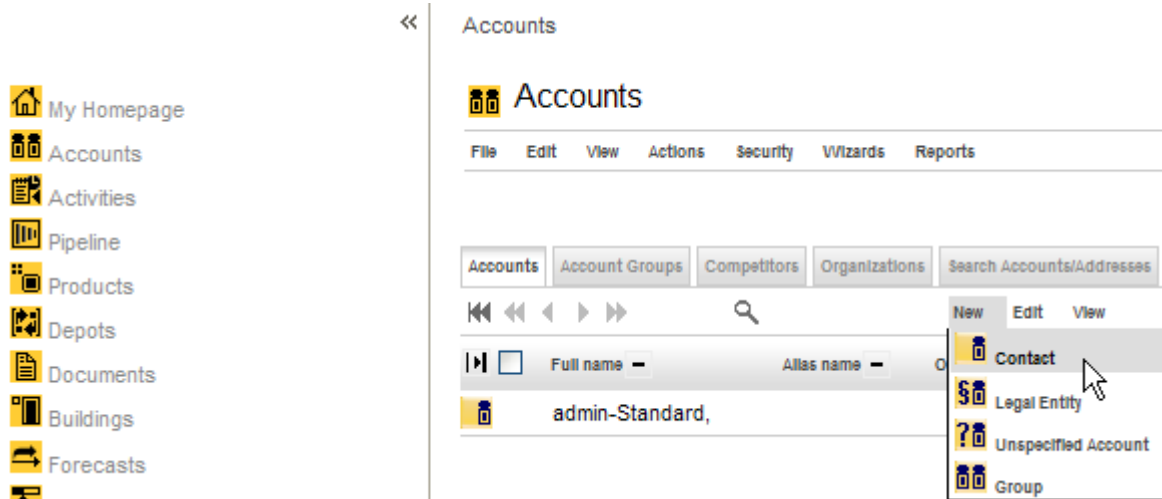


Figure 12: Create new Contact – Step 1

This brings up the form for new contacts. Enter **guest** into the field *Last name* (feel free to provide additional information, but don't change the Qualifier, which is generated automatically by openCRX, unless you know exactly what you are doing):

The screenshot shows a web browser window titled "openCRX - Untitled - Contact - Mozilla Firefox 3 Beta 3". The address bar shows the URL: `http://localhost:8080/opencrx-core-CRX/ObjectInspectorServlet?requestId=75b`. The page header includes the openCRX logo, user information "admin-Standard" and "admin-Standard@Standard", and a language selector set to "en_US".

The main content area is titled "Untitled - Contact" and contains a form with several sections:

- Person:** Fields for Salutation code (N/A), Picture (Browse...), Salutation, First Name, Middle Name, Last Name (highlighted with "guest"), Suffix, Nick Name, and Alias name.
- Contact information:** Fields for Preferred method (N/A), Spoken language (N/A), Written language (N/A), No E-Mail (checkbox), No postal mail (checkbox), No bulk postal mail (checkbox), Do not phone (checkbox), and Do not fax (checkbox).
- Job information:** Fields for Job Title, Job Role, Organization, Department, Reports to, Person's assistant, and Person's deputy.
- Qualifier:** A text field containing the value "IURqQOeJEdyyq4v-6sZnsg".

At the bottom of the form, there are "Save" and "Cancel" buttons. Below the form, there is a yellow banner that says "Change edit-note.html in order to customize this note" and a footer that says "openCRX v2.0.0 (CRX) - Change edit-footer.html in order to customize this footer".

Figure 13: Create new Contact – Step 2

Next you click **Save** to store this new Contact. This takes you back to the **Account** grid.

3.4.2 Segment Administrator creates new User

Click **User Homepages** and select the operation **Actions > Create User...** which allows you to create and initialize a new user. Set the fields to the values as shown below – type **guest** into the field *Principal name*, use the Lookup Inspector or the autocompleter to fetch values for *Contact* and *Primary user group* (note that you must either fetch values with the Lookup Inspector or select entries from the autocompleter's drop down menu for the parameters *Contact* and *Primary user group*, i.e. it is not sufficient to just type some text into these fields), and then type a password (e.g. **guest**) into the fields *Initial password* and *Password again*:

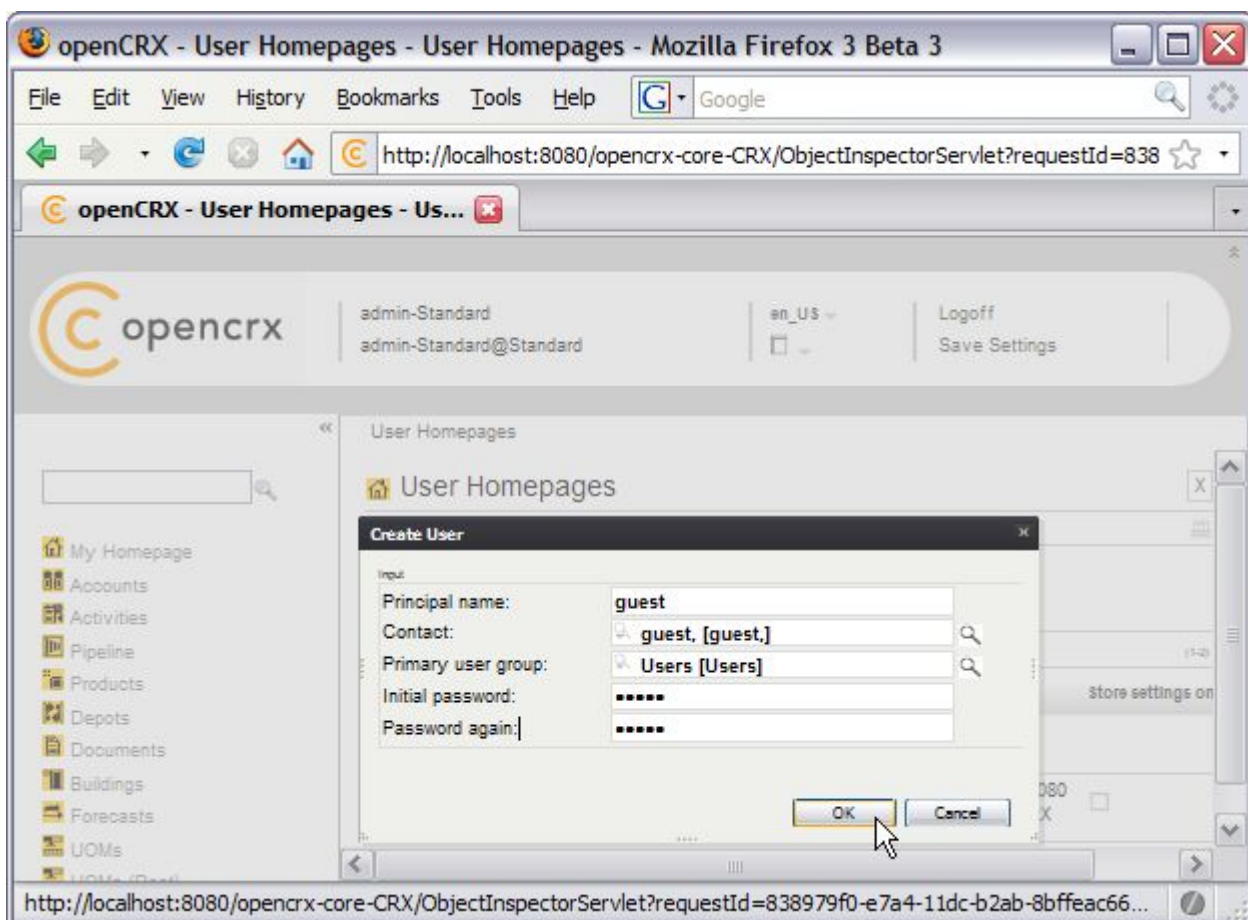


Figure 14: Create new User



Passwords are stored in the table **security_Credential**. If you do not have the login module of your application server configured to access the table `security_Credential` then the setting of the passwords in openCRX has no effect (with JBoss, for example, you can edit the files **users.properties** and **roles.properties** to add users).

Next you click **OK** to execute the operation **Create User** which creates the User named **guest**. The result of executing this operation should look as follows:

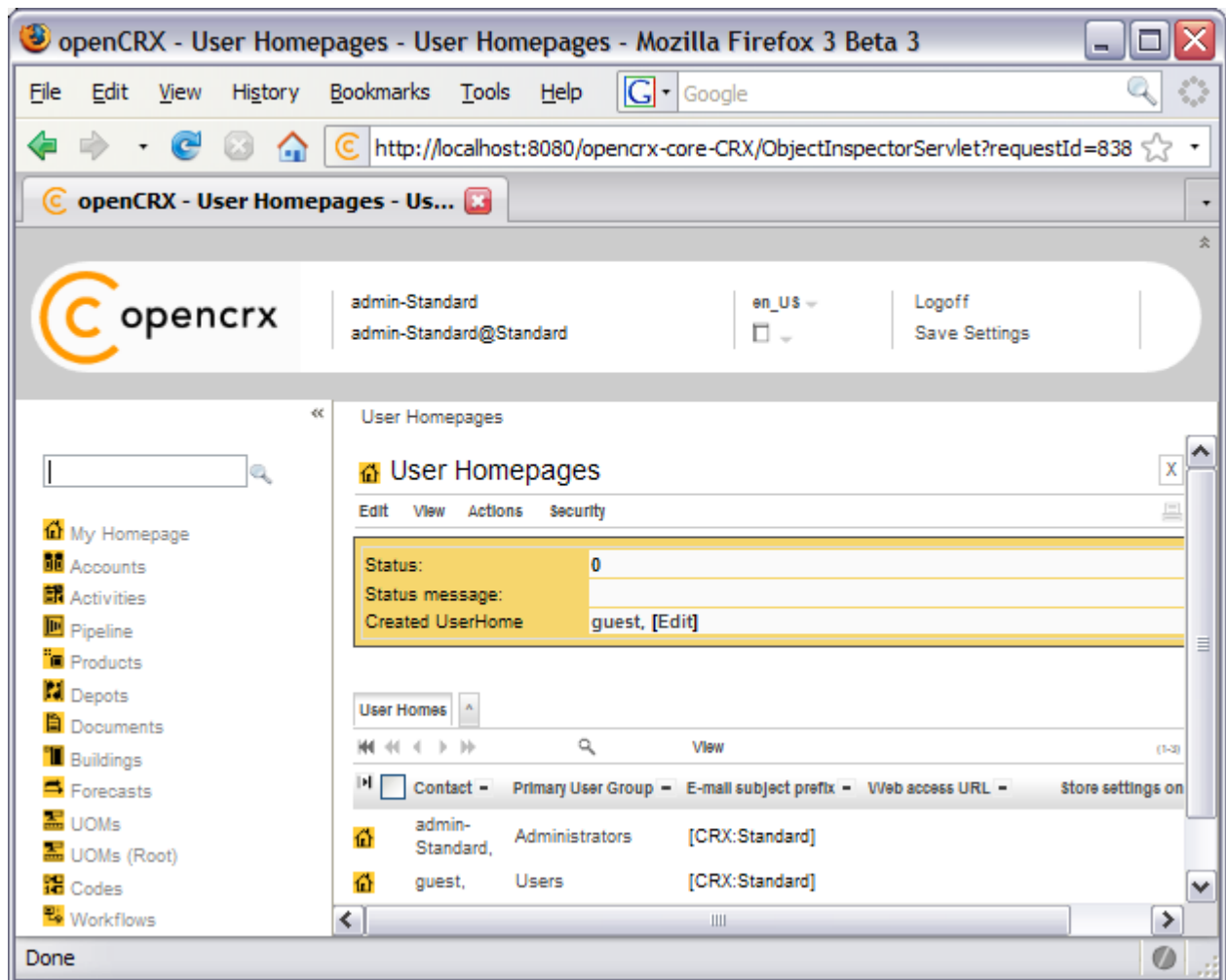


Figure 15: Result of operation Create User

The grid **User Homes** contains now 2 entries: admin-Standard and guest.

Congratulations! You have successfully created the new user guest. The new user should now be able to login. You can verify this by logging off and then logging on with **Username guest** and **Password guest**.



You can usually fix corrupt data of an existing user by creating this user's homepage again – note, however, that the respective user's personal settings are reset to default values by executing the operation **Create User**.

4 Next Steps

Now that you have successfully installed and configured openCRX you might want to have a look at some of the additional documentation published at <http://www.opencrx.org/documents.htm>.