# openCRX Server Installation

Version 2.5.1



www.opencrx.org

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# **1** About this Book

This book describes how to **install an openCRX Server** with the BitRock installer **on Windows or Linux** platforms. Please note that this is a guide to set up a **runtime environment** suitable for evaluation and testing purposes. It is not recommended to use this configuration for a production site.

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 interested in evaluating openCRX.

#### **1.2** What do you need to understand this book

This book describes how to install openCRX with the BitRock installer, which takes care of all the tricky configuration issues for you. The prerequisites are minimal (JDK) and once they are met you should have openCRX up and running in less than 5 minutes.

#### 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

### 2.1 JDK 5.0

Install the Sun Java JDK 5.0 available from http://java.sun.com/javase/downloads/index\_jdk5.jsp



You really need Java 5, i.e. neither Java 4 nor Java 6 will work.



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



It is a good idea to **avoid paths containing blanks** like the default installation directory ...\Program Files\... on Windows.



Don't forget to set the **environment variable** JAVA\_HOME. It should point to your JDK installation directory, e.g. to D:\Java\jdk1.5.0.

## 2.2 Ant 1.7.0

Download Ant 1.7.0 (available from http://ant.apache.org/) for your platform and install it by expanding the downloaded file to a directory of your choice.



Ant v1.7.1 might work as well. However, we recommend Ant v1.7.0 (there are some combinations of JDK versions and Ant v1.7.1 that "don't like each other"...)



Don't forget to set the **environment variable** ANT\_HOME as follows: **ANT\_HOME** should point to the installation directory of Ant, e.g. D:\apache-ant-1.7.0 on Windows or /opt/apache-ant-1.7.0 on Linux.

### 2.3 openMDX Tomcat EJB Installer

Download the openMDX Tomcat EJB Installer appropriate for your platform from Sourceforge: http://www.openmdx.org/downloads.htm

Installer for Windows: openmdxTomcatEjb-2.5.1-windows-installer.exe

Installer for Linux: openmdxTomcatEjb-2.5.1-linux-installer.bin

The openMDX Tomcat EJB Installer will install Apache Tomcat v6.0.18 including Apache's OpenEJB on your system.

#### 2.4 openCRX Server Installer

Download the openCRX Server Installer appropriate for your platform from Sourceforge: http://www.opencrx.org/downloads.htm

Installer for Windows: opencrxServer-2.5.1-windows-installer.exe

Installer for Linux: opencrxServer-2.5.1-linux-installer.bin

The openCRX Server Installer will install the openCRX EARs, an openCRX database (HSQLDB), and various configuration files on your system.



Please note that HSQLDB is neither a high performance DBMS nor is it meant to be used as a productive DBMS for openCRX. However, it gets lots of points for "ease of installation" and that is what counts for getting off the ground fast.

Once you're comfortable with openCRX you can easily migrate to another DBMS without losing any data. More information about choosing a suitable DBMS and migrating from HSQLDB to another DBMS is available here:

- http://www.opencrx.org/faq.htm#db
- http://www.opencrx.org/faq.htm#changedb

### 2.5 Hardware

We recommend a decent CPU and at least 1GB RAM. More detailed information about the requirements of openCRX are available from http://www.opencrx.org/faq.htm#hardware

#### **3** Installing openCRX Server on Windows

#### 3.1 Apache Tomcat / OpenEJB

- 1. Launch the Installer openmdxTomcatEjb-2.5.1-windows-installer.exe
- 2. Click [Next] on the following screen:



3. Accept the BSD License Agreement and click [Next] again:



4. Choose an **installation directory** (instead of 2.x.x you will be seeing the repsective version number; the directory will be created automatically if it does not exist yet). Then click [Next] to continue:

4
Tip

It is a good idea to **avoid paths containing blanks** like the default installation directory ...\Program Files\... on Windows

📑 Setup	
Installation Directory	operndx 🕹
Please specify the directory where openMDX T	omcat+EJB will be installed.
Installation Directory P:\openmdxTomcatEjb	2.x.x
BitRock Installer	
	< Back Next > Cancel

5. Please note the information on the following screen. It is assumed that you have installed JDK 1.5 (also called JDK 5.0) appropriate for your platform (see Prerequisites). Click [Next] to continue:

📑 Setup	_ 🗆 🛛
	<mark>pemd</mark> x
Installation instructions	
This installer creates a Tomcat 6.0.18 instance extended with Apache OpenEJB 3.1. The lib directory of the Tomcat instance contains the openMDX libraries and is therefore ready to run openMDX based applications. The installer does NOT include t 1.5 binaries. Make sure you have these packages installed be continuing.	h he JDK fore
BitRock Installer	Cancel

6. Select the home directory of your JDK 1.5 installation - for example
 D:\Java\jdk1.5.0 - and then click [Next] to continue:

📑 Setup		
JDK 1.5 home direct	огу	opemdx 🕹
Select home directory of /usr/lib/jvm/jdk1.5.0 on l	an existing JDK 1.5, e.g. C:\pgm\Java\jdk1.5.0 inux platforms.	) on Windows or
JDK 1.5 home directory	D:\Java\jdk1.5.0	6
PitPook Installer		
DIG OCK INStaller	< Back N	ext > Cancel

Select the home directory of your Ant installation – for example
 D:\apache-ant-1.7.0 - and then click [Next] to continue:

📑 Setup		
Ant 1.7.0 home directo	ıry	opemdx 🕹
Select home directory of a Windows or /opt/apache-a	n existing Ant 1.7.0 installation, e.g. C:\pgr nt-1.7.0 on Linux platforms.	n\apache-ant-1.7.0 on
Ant 1.7.0 home directory	D:\apache-ant-1.7.0	1 <sup>2</sup>
BitBock Installer		
	< Back	Next > Cancel

8. Enter the Tomcat ports (defaults are shown below). Please note that Tomcat does not start properly unless it has exclusive use of these ports, i.e. make sure that the chosen ports are indeed available. Click [Next] to continue:

📑 Setup			
			spemdx
Tomcat configuration s	ettings		•
Tomcat HTTP port	8080		
Tomcat HTTPS port	8443		
Tomcat server port	8005		
Tomcat AJP port	8009		
BitRock Installer			
		< Back Ne	xt > Cancel

9. Finally, click [Next] to start the installation:

📑 Setup	
Ready to Install	opemdx 🕹
Setup is now ready to begin installing oper	nMDX Tomcat+EJB on your computer.
BitRock Installer	
	< Back Next > Cancel

10. Once the installation is complete, verify the result of the post installation script and click [Ok]:



11. Click [Finish] on the last screen to leave the installer:

📑 Setup	
	Completing the openMDX Tomcat+EJB Setup         Wizard         Setup has finished installing openMDX Tomcat+EJB on your         computer.         ✓         View Readme File
	< Back Finish Cancel

12. On your desktop, you should see the following new shortcuts created by the installer (instead of 2.x.x you will be seeing the respective version number):



#### 3.2 openCRX

1. Launch the Installer opencrxServer-2.5.1-windows-installer.exe

#### 2. Click [Next] on the following screen:



3. Accept the BSD License Agreement and click [Next] again:

📑 Setup 📃 🗖	X
License Agreement	rx
Please read the following License Agreement. You must accept the terms of this agreement befor continuing with the installation.	e
This software is published under the BSD license as listed below.	
Copyright (c) 2004-2009, CRIXP Corp., Switzerland All rights reserved.	
Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:	~
Do you accept this license? I accept the agreement I do not accept the agreement	_
< Back Next > Cancel	

4. On the following screen, navigate to the **Tomcat installation directory** – for example **P:\openmdxTomcatEjb-2.x.x** (use the respective version number instead of 2.x.x) – and then click [Next] to continue:

		nen [nene] to continuer
📑 Setup		
Tomcat+EJB directory		
openCRX is added to an	existing Tomcat+EJB installation.	
Tomcat+EJB directory	P:\openmdxTomcatEjb-2.x.x	6
BitRock Installer		
	< Back	Next > Cancel

5. Please note the information on the following screen and then click [Next] to continue:

📑 Setup	
IMPORTANT	Copencrx
Installation instructions	
This installer adds openCRX to an installation. The installation com database. The installer does NOT i sure you have this package install	existing openMDX Tomcat+EJB es with a preconfigured HSQLDB nclude openMDX Tomcat+EJB. Make ed before continuing.
BitRock Installer	< Back Next > Cancel

6. Select the home directory of your JDK 1.5 installation - for example
 D:\Java\jdk1.5.0 - and then click [Next] to continue:

📑 Setup				
JDK 1.5 home directo	ory		Cot	pencrx
Select home directory of /usr/lib/jvm/jdk1.5.0 on l	an existing JDK 1.5, e. inux platforms.	.g. C:\pgm\Java\jdk	1.5.0 on Windows o	)r
JDK 1.5 home directory	D:\Java\jdk1.5.0		6	
BitRock Installer		< Back	Next >	Cancel

7. Select the home directory of your Ant installation – for example
 D:\apache-ant-1.7.0 - and then click [Next] to continue:

📑 Setup			
Ant 1.7.0 home directo	ory		opencrx
Select home directory of a Windows or /opt/apache-a	n existing Ant 1.7.0 installa ant-1.7.0 on Linux platforms	tion, e.g. C:\pgm\apache	e-ant-1.7.0 on
Ant 1.7.0 home directory	D:\apache-ant-1.7.0		6
BitRock Installer		< Back Next >	Cancel

8. Enter the port number of the **HSQLDB service**. You can choose any port available on your system. The default is **9001**. Click [Next] to continue:

📑 Setup	_ = 🛛
HSQLDB port	Copencrx
The installer comes with a default database. Please enter the port database.	number for the HSQLDB
HSQLDB port 9001	
BitRock Installer	Next > Cancel

9. Finally, click [Next] to start the installation:

📑 Setup	
Ready to Install	Copencrx
Setup is now ready to begin installing openCRX Server on your comp	uter.
BitRock Installer	
< Back	Next > Cancel

10. Verify that the post installation completed with errors and then click [OK]:

🕉 Post Installation Script Result	
Buildfile:	
<pre>P:\openmdxlomcattjb-2.x.x\installer\opencrx-server\bin\postinstal. postinstall:</pre>	Ler.xm1
BUILD SUCCESSFUL	
Total time: 0 seconds	
Ok	

11. Once the installation is complete, click [Finish] on the last screen:

📑 Setup	
	Completing the openCRX Server Setup Wizard
G	Setup has finished installing openCRX Server on your computer.
	< Back Finish Cancel

12. Finally, please carefully read the README, in particular information about **valid URLs**, preconfigured **users** and **passwords**:

📑 README	
login using a browser. Valid URLs are:	
<pre>* openCRX/Core: http://localhost:<tomcat_port>/opencrx-core-CRX * openCRX/Store: http://localhost:<tomcat_port>/opencrx-store-CRX/Store.jsp</tomcat_port></tomcat_port></pre>	
The following accounts are preconfigured: * guest * admin-Standard	
* admin-Root The password for all three accounts is 'opencrx'.	~
Ok	

13. On your desktop, you should now see the following shortcuts (instead of 2.x.x you will be seeing the respective version number):



#### 4 Installing openCRX Server on Linux



There is no need to install openCRX as root. We created a user **crx** and the whole installation procedure is done as user **crx**. In case your system is GUI-less, you can launch the installer in text/console mode with the parameter --mode text.

#### 4.1 Apache Tomcat / OpenEJB

- 1. Launch the Installer openmdxTomcatEjb-2.5.1-linux-installer.bin
- 2. Click [Forward] on the following screen:



3. Accept the BSD License Agreement and click [Forward] again:

	Setup	
License Agreement		🔪 🦆 opemdx
Please read the following Lic agreement before continuing	ense Agreement. You mus g with the installation.	t accept the terms of this
This software is pu as listed below.	blished under the	BSD license
Copyright (c) 2004- All rights reserved	2009, OMEX AG, Swi	itzerland 🗾
Do you accept this license?	<ul> <li>I accept the agreement</li> <li>I do not accept the agreement</li> </ul>	reement
BitRock Installer		
	🖨 <u>B</u> ack	Eorward X Cancel

4. Choose an **installation directory** (instead of 2.x.x you will be seeing the respective version number); it will be created automatically if it does not exist yet). Then click [Forward] to continue:

9 <b>00</b>	Setup	
Installation Direct	ory	opendx 🕹
Please specify the dir	rectory where openMDX Tomcat+EJ	B will be installed.
Installation Directory	/home/crx/openmdxTomcatEjb-2.x	x
BitRock Installer ——	🗢 <u>B</u> ack 🖨	orward X Cancel

5. Please note the information on the following screen. It is assumed that you have installed JDK 1.5 (also called JDK 5.0) and Ant v1.7.0 appropriate for your platform (see Prerequisites). Click [Forward] to continue:



6. Select the home directory of your JDK 1.5 installation - for example **/opt/jdk1.5.0\_17** - and then click [Forward] to continue:

	Setup	
JDK 1.5 home directory	,	opendx 🕹
Select home directory of an Windows or /usr/lib/jvm/jdk!	existing JDK 1.5, e.g. C:\pgm\Ja 1.5.0 on Linux platforms.	va\jdk1.5.0 on
JDK 1.5 home directory 🔟	t/jdk1.5.0_17	
RitPock Installor		<b>ŀ</b> ,
brower instance	🗢 <u>B</u> ack 🖨 <u>F</u> orv	vard X <u>C</u> ancel

7. Select the home directory of your Ant installation - for example
 /opt/apache-ant-1.7.0 - and then click [Forward] to continue:

*=	Setup		
Ant 1.7.0 home directory		•••	openıdx
Select home directory of an exist ant-1.7.0 on Windows or /opt/apa	ting Ant 1.7.0 installatio iche-ant-1.7.0 on Linux	n, e.g. C:\pgi platforms.	m\apache-
Ant 1.7.0 home directory /opt/ap	ache-ant-1.7.0		
BitBock Installer			
		orward	🗙 <u>C</u> ancel

9.

8. Enter the Tomcat ports (defaults are shown below). Please note that Tomcat does not start properly unless it has exclusive use of these ports, i.e. make sure that the ports you choose are not already in use. Click [Next] to continue:

»=	Setup	
		• opemdx
Tomcat configuration	n settings	
Tomcat HTTP port	8080	
Tomcat HTTPS port	8443	
Tomcat server port	8005	
<b>Tomcat AJP port</b> BitRock Installer —	8009	
	🗢 <u>B</u> ack 🖨 Eorward	X <u>C</u> ancel
Finally, click [For	ward] to start the installation:	
	Setup	

2	secup	
Ready to Install		openidx 🕹
Setup is now ready to begin	installing openMDX Tomca	at+EJB on your computer.
RitBock Installer		
Ditwert instance	🗢 <u>B</u> ack	Eorward X Cancel

# 10. Once the installation is complete, verify the result of the post installation script and click [Ok]:



11. Click [Finish] on the last screen to leave the installer:

2	Setup _ 🗆 🗙	
	Completing the openMDX Tomcat+EJB Setup Wizard Setup has finished installing openMDX Tomcat+EJB on your computer.	
Y	Finish Cancel	

12. On your desktop, you should see the following new shortcuts created by the installer (instead of 2.x.x you will be seeing the respective version number):



#### 4.2 openCRX

- 1. Launch the Installer opencrxServer-2.5.1-linux-installer.bin
- 2. Click [Forward] on the following screen:



3. Accept the BSD License Agreement and click [Forward] again:

	secup	
License Agreement		Copencrx
Please read the following Lic agreement before continuing This software is pu as listed below.	ense Agreement. You must ac g with the installation. blished under the BS	CCEPT the terms of this
Copyright (c) 2004- All rights reserved	2009, CRIXP Corp., S	Switzerland
Do you accept this license?	<ul> <li>I accept the agreement</li> <li>I do not accept the agree</li> </ul>	ement
BitRock Installer ————	💠 <u>B</u> ack 🖨 🖨	rward X Cancel

On the following screen, navigate to the Tomcat installation directory – for example /home/crx/openmdxTomcatEjb-2.5.1 – and then click [Forward] to continue:

in the second	Setup	
Tomcat+EJB directory		Copencrx
openCRX is added to an existin	ig Tomcat+EJB installation.	
Tomcat+EJB directory //home/o	crx/openmdxTomcatEjb-2.x	× 🔊
BitRock Installer ————	⊕ Eo	rward X Cancel

5. Please note the information on the following screen and then click [Forward] to continue:

Land .	Setup	
IMPORTANT		Copencrx
Installation instruct	ions	
This installer adds The installation cor does NOT include installed before co	openCRX to an existing openMDX Tomca nes with a preconfigured HSQLDB datab openMDX Tomcat+EJB. Make sure you ha ntinuing.	at+EJB installation. base. The installer ave this package
BitRock Installer —	🗢 <u>B</u> ack 🖨 🖨	ward X <u>C</u> ancel

6. Select the home directory of your JDK 1.5 installation - for example **/opt/jdk1.5.0\_17** - and then click [Forward] to continue:

<b>1</b> 5	Setup	
JDK 1.5 home directory		Copencrx
Select home directory of an ex Windows or /usr/lib/jvm/jdk1.5.	kisting JDK 1.5, e.g. C:\pgn 0 on Linux platforms.	n\Java\jdk1.5.0 on
JDK 1.5 home directory	lk1.5.0_17	
BitRock Installer —————	<b>⇔</b> <u>B</u> ack <b>⇒</b> <u>E</u>	orward X Cancel

7. Select the home directory of your Ant installation – for example
 /opt/apache-ant-1.7.0 – and then click [Forward] to continue:

/opt/apache-ant-1.7.0	– and then	CIICK [Forward] to continu
	Setup	
Ant 1.7.0 home directory		Copencrx
Select home directory of an exist ant-1.7.0 on Windows or /opt/apa	ting Ant 1.7.0 ins iche-ant-1.7.0 or	tallation, e.g. C:\pgm\apache- i Linux platforms.
Ant 1.7.0 home directory /opt/ap	ache-ant-1.7.0	
BitRock Installer ———————————————————————————————————	🖨 <u>B</u> ack	Forward X Cancel

8. Enter the port number of the **HSQLDB service**. You can choose any port available on your system. The default is **9001**. Click [Forward] to continue:

<b>-</b>	Setup _	
HSQLDB port	Copen	crx
The installer comes with a defau the HSQLDB database.	ult database. Please enter the port number fo	or
HSQLDB port 9001		
BitRock Installer		
	⊕ <u>B</u> ack     ☐ Eorward     X <u>C</u> ance	el

9. Next, click [Forward] to start the installation:

<b>1</b>	Setup	
Ready to Install		Copencrx
Setup is now ready to begin in	nstalling openCRX Server	on your computer.
	2 .	
BitRock Installer		
STORE CONTRACT	<b>♦</b> <u>B</u> ack	Eorward

14. Verify that the post installation completed with errors and then click [OK]:



10. Once the installation is complete, click [Finish] on the last screen:

Setup 📃 🗆 🗙
Completing the openCRX Server Setup Wizard
Setup has finished installing openCRX Server on your computer.
✓ View Readme File
Gancel

11. Finally, please carefully read the README, in particular information about **valid URLs**, preconfigured **users** and **passwords**:



12. On your desktop, you should now see the following shortcuts (instead of 2.x.x you will be seeing the respective version numbers):



# 5 Running openCRX Server

The installation process created 8 shortcuts on your desktop (instead of 2.x.x you will be seeing the respective version numbers):



#### 5.1 Start openCRX Server

Double-click the shortcut **Start openCRX Server**.

#### 5.2 Connect and Login

Double-click the shortcut **Login Tomcat+EJB**. This will launch your default browser and take you to the Tomcat home page. In the lower left corner you will see a box labeled openCRX CRM:

openCRX CRM	
openCRX Core	
openCRX Store	
openCRX Web Site	

Click on **openCRX Core** to load the openCRX login page. Enter a valid username (e.g. guest) and the corresponding password (e.g. opencrx) and then click [Login]. Initialization takes place during the first login after (re)starting Tomcat, so please be patient. Subsequent logins will be very fast.

#### 5.3 Stop openCRX Server

Double-click the shortcut **Stop openCRX Server**.

# 6 Next Steps

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