# openCRX Server Installation

Version 2.2.0



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.



Don't forget to set the **environment variable** JAVA\_HOME

If you deploy openCRX on Sun's JVM you might run into a problem that is mind-boggling (but specific to the Sun JVM). It's the dreaded

#### PermGen OutOfMemoryError

While increasing the size of the PermGen space with the appropriate JVM option might postpone the problem it is not really a solution: -XX:MaxPermSize=400m

(400m means 400MB; if you have enough memory at hand you can also set it to a larger value)

Lots of people have been struggling with this error (which is by the way not related to openCRX – any application could trigger it) and as of today we have not come across a solution other than to avoid Sun's JVM (JVMs by Oracle/BEA and IBM are – by construction – not prone to this error). Do a Google search if you want to convince yourself or drop us a line if you have a solution. But be aware that increasing the memory allocated for the permanent generation is no solution – it will only postpone the problem:

- http://my.opera.com/karmazilla/blog/2007/03/13/good-riddance-permgen-outofmemoryerror
- http://my.opera.com/karmazilla/blog/2007/03/15/permgen-strikes-back
- http://crashingdaily.wordpress.com/2007/02/04/crashing-tomcat/

#### 2.2 openMDX Tomcat LWC Installer

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

Installer for Windows: openmdxTomcatLwc-2.2.0-windows-installer.exe

Installer for Linux: openmdxTomcatLwc-2.2.0-linux-installer.bin

The openMDX Tomcat LWC Installer will install Apache Tomcat v6.0.14 including the openMDX Lightweight Container (LWC) on your system.

#### 2.3 openCRX Server Installer

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

Installer for Windows: opencrxServer-2.2.0-windows-installer.exe

Installer for Linux:

opencrxServer-2.2.0-linux-installer.bin

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

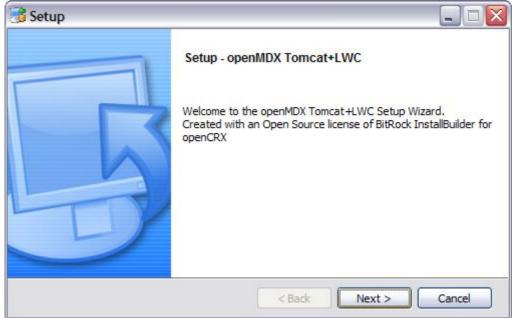
#### 2.4 Hardware

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 / LWC

- 1. Launch the Installer openmdxTomcatLwc-2.2.0-windows-installer.exe
- 2. Click [Next] on the following screen:



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

📑 Setup		X		
License Agreement	operno	dx		
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.				
This software is publ as listed below.	lished under the BSD license			
Copyright (c) 2004-2008, OMEX AG, 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?	<ul> <li>I accept the agreement</li> <li>I do not accept the agreement</li> </ul>			
DIGTOCK INSTALLET	< Back Next > Cancel			

4. Choose an **installation directory** (it will be created automatically if it does not exist yet). Then click [Next] to continue:

📑 Setup	
Installation Directory	openidx 🕹
Please specify the directory when	e openMDX Tomcat+LWC will be installed.
Installation Directory P:\openm	dxTomcatLwc-2.2.0
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>enıd</mark> x
Installation instructions	
This installer creates a Tomcat 6 instance extended by the op- Lightweight EJB Container. The installer does NOT include the 1.5 binaries. Make sure you have these packages installed befor continuing.	JDK
BitRock Installer	ancel

6. Select the home directory of your JDK 1.5 installation - for example
 D:\Java\jrockit1.5.0 - and then click [Next] to continue:

📑 Setup					
JDK 1.5 home directory				opemdx	
Select home directory of an existing JDK 1.5, e.g. C:\pgm\Java\jdk1.5.0 on Windows or /usr/lib/jvm/jdk1.5.0 on Linux platforms.					
JDK 1.5 home directory	D:\Java\jrockit1.5.0		6		
BitRock Installer					
		< Back	Next >	Cancel	

7. Enter the port number of the **Tomcat HTTP connector**. You can choose any port available on your system. The default is **8080**. Click [Next] to continue:

📑 Setup		
Tomcat HTTP po	rt	opemdx 🕹
Please enter the po	rt number for the Tomcat HTTP connector.	
Tomcat HTTP port	8080	]
BitRock Installer		
	< Back	Next > Cancel

8. Similarly, enter the port number of the **Tomat HTTPS Connector**. The default is **8443**. Click [Next] to continue:

📑 Setup	
Tomcat HTTPS port	opemdx
Please enter the port number for the Tomcat HTTPS connector.	
Tomcat HTTPS port 8443	
BitRock Installer	
< Back Next >	Cancel

9. Next, enter the **Tomcat command port** number. The default is **8005**. Click [Next] to continue:

📑 Setup	
Tomcat server port	opendx 🕹
Please enter the port number of the Tomcat server.	
Tomcat server port 8005	
BitRock Installer	
< Back Ne	ext > Cancel

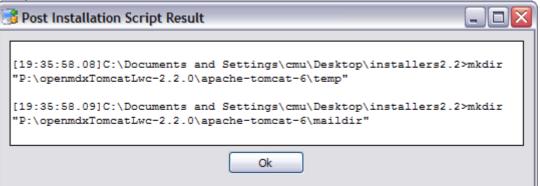
10. Enter the port number of the **Tomcat AJP connector**. The default is **8009**. Click [Next] to continue:

📑 Setup	
Tomcat AJP port	operndx 🕹
Please enter the port number of the Tomcat AJP connector.	
Tomcat AJP port 8009	]
BitRock Installer	
< Back	Next > Cancel

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

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

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



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

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

14. On your desktop, you should see the following new shortcuts created by the installer:



#### 3.2 openCRX

1. Launch the Installer opencrxServer-2.2.0-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 before continuing with the installation.				
This software is published under the BSD license as listed below.				
Copyright (c) 2004-2008, 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 I do not accept the agreement				
BitRock Installer  Cancel				

 On the following screen, navigate to the Tomcat installation directory – for example P:\openmdxTomcatLwc-2.2.0 – and then click [Next] to continue:

continuer		
📑 Setup		_ 🗆 🔀
Tomcat+LWC director	1	Copencrx
openCRX is added to an ex	isting Tomcat+LWC installation.	
Tomcat+LWC directory	?:\openmdxTomcatLwc-2.2.0	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 e installation. The installation come database. The installer does NOT in sure you have this package installe	s with a preconfigured HSQLDB clude openMDX Tomcat+LWC. Make
BitRock Installer	< Back Next > Cancel

6. 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
Please enter the port number for the HSQLDB service.	
HSQLDB port 9001	
BitRock Installer	
< Back	Next > Cancel

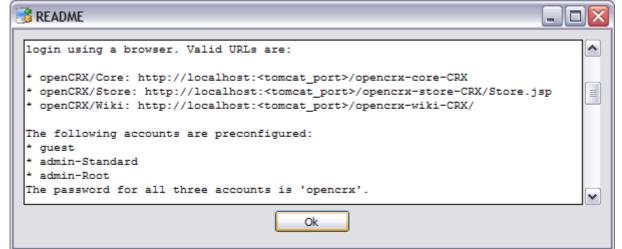
7. Finally, click [Next] to start the installation:

📑 Setup	
Ready to Install	Copencrx
Setup is now ready to begin installing openCRX Server on your compu	ter.
BitRock Installer	Next > Cancel

8. 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.
	< Back Finish Cancel

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



10. On your desktop, you should see the following new shortcut created by the installer:



### 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**.

#### 4.1 Apache Tomcat / LWC

- 1. Launch the Installer openmdxTomcatLwc-2.2.0-linux-installer.bin
- 2. Click [Forward] on the following screen:



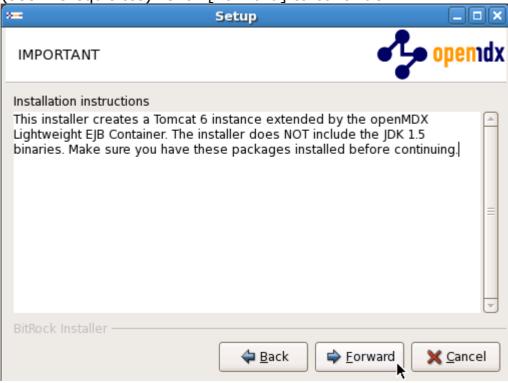
3. Accept the BSD License Agreement and click [Forward] again:

	Setup	
License Agreement	<u>م</u>	<b>open</b> ıdx
agreement before continuin	ense Agreement. You must accept t g with the installation. blished under the BSD li	
Copyright (c) 2004- All rights reserved	2008, OMEX AG, Switzerla	and 🚽
Do you accept this license?	<ul> <li>I accept the agreement</li> <li>I do not accept the agreement</li> </ul>	
BitRock Installer ———	🗢 <u>B</u> ack 🖨 🖨 Back	X Cancel

4. Choose an **installation directory** (it will be created automatically if it does not exist yet). Then click [Forward] to continue:

9 <b></b>	Setup	
Installation Directo	ry	opemdx 🕹
Please specify the dire	ctory where openMDX Tomc	at+LWC will be installed.
Installation Directory	/home/crx/openmdxTomcatLv	vc-2.2.0
BitRock Installer		
	🗢 <u>B</u> ack	Eorward

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 [Forward] to continue:



6. Select the home directory of your JDK 1.5 installation - for example **/opt/jrockit-1.5.0\_12** - and then click [Forward] to continue:

*==	Setup	
JDK 1.5 home directory		spemdx opemdx
Select home directory of an exi Windows or /usr/lib/jvm/jdk1.5.0		ogm\Java\jdk1.5.0 on
JDK 1.5 home directory /opt/jrc	ockit-1.5.0_12	
DitBook Installer		
BitRock Installer ————	🗢 <u>B</u> ack	Eorward

7. Enter the port number of the **Tomcat HTTP connector**. You can choose any port available on your system. The default is **8080**. Click [Forward] to continue:

200	Setup	
Tomcat HTTP port	•	🦆 opemdx
Please enter the port number f	or the Tomcat HTTP connector.	
Tomcat HTTP port 8080		
BitRock Installer ————		
		d X Cancel

8. Similarly, enter the port number of the **Tomat HTTPS Connector**. The default is **8443**. Click [Forward] to continue:

	Setup	
Tomcat HTTPS port	•	<b>Se opernd</b> x
Please enter the port number for	r the Tomcat HTTPS connector.	
Tomcat HTTPS port 8443		
BitRock Installer		
	⊕ Eorward     ↓	X <u>C</u> ancel

9. Next, enter the **Tomcat command port** number. The default is **8005**. Click [Forward] to continue:

x==	Setup	
Tomcat server port		🍫 opemdx
Please enter the port n	umber of the Tomcat server.	
Tomcat server port	05	
BitRock Installer ———	🖨 <u>B</u> ack	Eorward X Cancel

10. Enter the port number of the **Tomcat AJP connector**. The default is **8009**. Click [Forward] to continue:

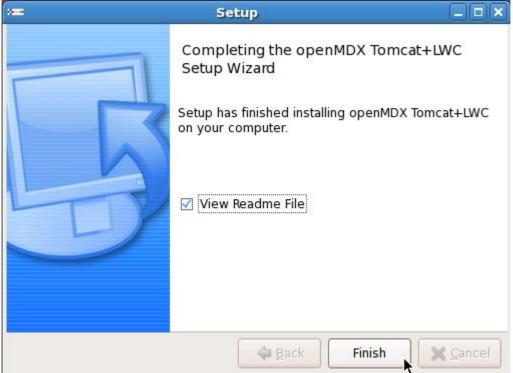
🖛 Setup 💶 🗙
Tomcat AJP port opendx
Please enter the port number of the Tomcat AJP connector.
Tomcat AJP port 8009
BitRock Installer
$\Rightarrow \underline{B}ack \qquad \Rightarrow \underline{F}orward \qquad \bigstar \underline{C}ancel$
Finally, click [Forward] to start the installation:
🗯 Setup 💶 🔍
Ready to Install

Setup is now ready to begin installing openMDX Tomcat+LWC on your computer.

BitRock Installer	
	🗢 Back 🖨 Eorward 🗙 Cancel

12. Once the installation is complete, you might see a window containing the result of the post installation script. Click [Ok] to close the window

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



14. On your desktop, you should see the following new shortcuts created by the installer:

Start Tomcat+LWC 2. 2.0 (8080) Login Tomcat+LWC 2.2.0 (8080) Stop Tomcat+LWC 2. 2.0 (8080) Start Services for Tomcat+LWC 2.2.0 (8080)

#### 4.2 openCRX

- 1. Launch the Installer opencrxServer-2.2.0-linux-installer.bin
- 2. Click [Forward] on the following screen:



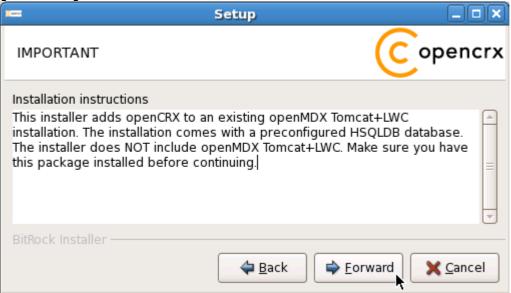
3. Accept the BSD License Agreement and click [Forward] again:

	Secup	
License Agreement		Copencrx
Please read the following Lic agreement before continuing This software is pu as listed below.	g with the installation.	
Copyright (c) 2004- All rights reserved		, Switzerland
Redistribution and with or without modification, are p	ermitted provided	that the
Do you accept this license?	<ul> <li>I accept the agreeme</li> <li>I do not accept the agreeme</li> </ul>	
BitRock Installer ————	🗢 <u>B</u> ack	Eorward X Cancel

 On the following screen, navigate to the **Tomcat installation directory** – for example /home/crx/openmdxTomcatLwc-2.2.0 – and then click [Forward] to continue:

	Setup		
Installation Directory		•	• opemdx
Please specify the directory whe	ere openMDX T	ōmcat+LWC will be i	nstalled.
Installation Directory //home/crx	/openmdxTom	catLwc-2.2.0	
BitRock Installer			
	🖨 <u>B</u> ack	Eorward	X <u>C</u> ancel

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



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

<b>E</b>	Setup	
HSQLDB port		Copencrx
Please enter the port number fo	or the HSQLDB service.	
HSQLDB port 9001		
BitRock Installer		
	🗢 <u>B</u> ack 🖨 🖨	rward

7. Finally, click [Forward] to start the installation:

	Setup	
Ready to Install		Copencrx
Setup is now ready to begin ins	talling openCRX Server on y	your computer.
BitRock Installer		
	⊕ Eorv     ☐	vard 🛛 🗙 <u>C</u> ancel

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



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

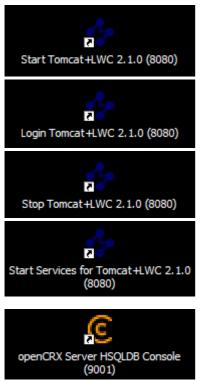
README	
login using a browser. Valid URLs are:	
* openCRX/Core: http://localhost: <tomcat_port>/opencrx-core-CRX * openCRX/Store: http://localhost:<tomcat_port>/opencrx-store-CRX/S * openCRX/Wiki: http://localhost:<tomcat_port>/opencrx-wiki-CRX/</tomcat_port></tomcat_port></tomcat_port>	Store =
The following accounts are preconfigured: * guest	
* admin-Standard * admin-Root	
The password for all three accounts is 'opencrx'.	•
<i>ф</i> <u>о</u> к	

10. On your desktop, you should see the following new shortcut created by the installer:



## **5** Running openCRX Server

The installation process created 5 shortcuts on your desktop:



Launch Browser and connect to Tomcat Stop Tomcat to stop the openCRX Server

Start Tomcat to start the openCRX Server

Most likely you won't need this shortcut Nevertheless, with this shortcut you could launch scripts named 001S.bat/sh, 002S.bat/sh, ... located in the Tomcat directory ./bin without actually starting Tomcat – currently, only HSQLDB installs a start script.

Launch Management Console of HSDQLDB

### 5.1 Starting openCRX Server

Double-click the shortcut **Start Tomcat+LWC**.

### 5.2 Connect and Login

Double-click the shortcut **Login Tomcat+LWC**. This will launch your default browser and take you to the Tomcat home page. In the lower left corner you will see a box labelled 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 Stopping openCRX Server

Double-click the shortcut **Stop Tomcat+LWC**.

### 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.