

# **openCRX Installation Guide for PostgreSQL 8.0+**

**Version 1.6.0**

**[www.opencrx.org](http://www.opencrx.org)**

**openCRX Installation Guide for PostgreSQL 8.0+: Version 1.6.0**

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# Chapter 1. About this Book

This book describes how to setup an *openCRX* database instance for *PostgreSQL*.

## Who this book is for

The intended audience are *openCRX* database administrators.

## What do you need to understand this book

This book describes the installation of *openCRX* for *PostgreSQL*. The book assumes that you are familiar with *PostgreSQL* installation and configuration.

## Chapter 2. Prerequisites

As a first step you must download the following software packages:

- Download **openCRX for PostgreSQL** from *here* ([http://sourceforge.net/project/showfiles.php?group\\_id=95219](http://sourceforge.net/project/showfiles.php?group_id=95219)) (e.g. *opencrx-1.6.0-core.postgresql-8.zip* or *opencrx-1.6.0-core.postgresql-8.tar.gz*). The distribution contains the *PostgreSQL* scripts required to install the *openCRX* database.
- Download **PostgreSQL source code** from *here* (<ftp://ftp.postgresql.org/pub/latest/>) or **PostgreSQL server binary** from *here* (<ftp://ftp.postgresql.org/pub/binary/>).
- Download **PgAdmin3** from *here* (<ftp://ftp.postgresql.org/pub/pgadmin3/release/>) (optional, only required if you prefer a GUI for admin tasks).
- You can find the **PostgreSQL JDBC driver** inside the binary distribution or you can build it when you compile the PostgreSQL source. Alternatively, you can download it from *here* (<http://jdbc.postgresql.org/download.html>).



**Important** Please ensure that you install the **correct JDBC driver** (i.e. matching JDK, PostgreSQL version, etc.) and **one JDBC driver only!** Ignoring this wisdom leads to problems as the connection to the database will fail.

As a next step you must install or compile PostgreSQL. The chapter **Server Administration** of the PostgreSQL documentation explains in detail how to install the database.

This document assumes that you use the pgAdmin3 or the psql terminal for database administration. The JDBC driver is required for the application server installation.

## Chapter 3. Upgrading from previous versions

If you already have *PostgreSQL* for *openCRX* installed, upgrade the database as explained below. You can then skip the rest of this document.

The *openCRX* distributions provide an SQL script of the form *upgrade-from-<version from>-to-<version to>.sql*. E.g. If you have installed *openCRX* 1.5.0 and you want to upgrade to version 1.6.0 you have to run the script *upgrade-from-1.5.0-to-1.6.0.sql* on your database instance.

## Chapter 4. Create the database

In order to connect to a PostgreSQL server from a remote pgAdmin3 instance you have to properly configure PostgreSQL server.

Let the PostgreSQL server accept connections from inside your network (suppose 192.168.1.0/24) by *postgres* and *system* users. We suppose the connections will be clear (not ssl) and protected by a password authentication mechanism. To do this, add the following lines at the end of the file `<postgres home dir>/data/pg_hba.conf`

### Example 4-1. Configure access to db

#TYPE	DATABASE	USER	IP-ADDRESS	IP-MASK	METHOD
local	all	all			password
host	crx-CRX	system	192.168.1.0	255.255.255.0	password
host	all	postgres	192.168.1.0	255.255.255.0	password



**Important** Remove the line with `ident sameuser` if it exists in `pg_hba.conf`: **host all all 127.0.0.1 255.255.255.255 ident sameuser**

If the PostgreSQL server is running, stop it before you continue

### Example 4-2. Stop PostgreSQL server

```
postgres$pg_ctl stop
```

Next, PostgreSQL server has to be configured to accept more than one connection through a socket. To do this, log-in to the system with the PostgreSQL server user account (usually *postgres* on a linux system) and start the PostgreSQL server with the following options:

### Example 4-3. Start PostgreSQL server

```
postgres$pg_ctl -o -i -l postmaster.log start
```

Now you can connect to the default PostgreSQL server database (template1) with the *postgres* user (DB Administrator)

Hint: if you prefer creating the database with `psql` terminal instead of using pgAdmin3, skip the next few steps and continue with Create the database with `psql` terminal.

Figure 4-1. Connect to the database

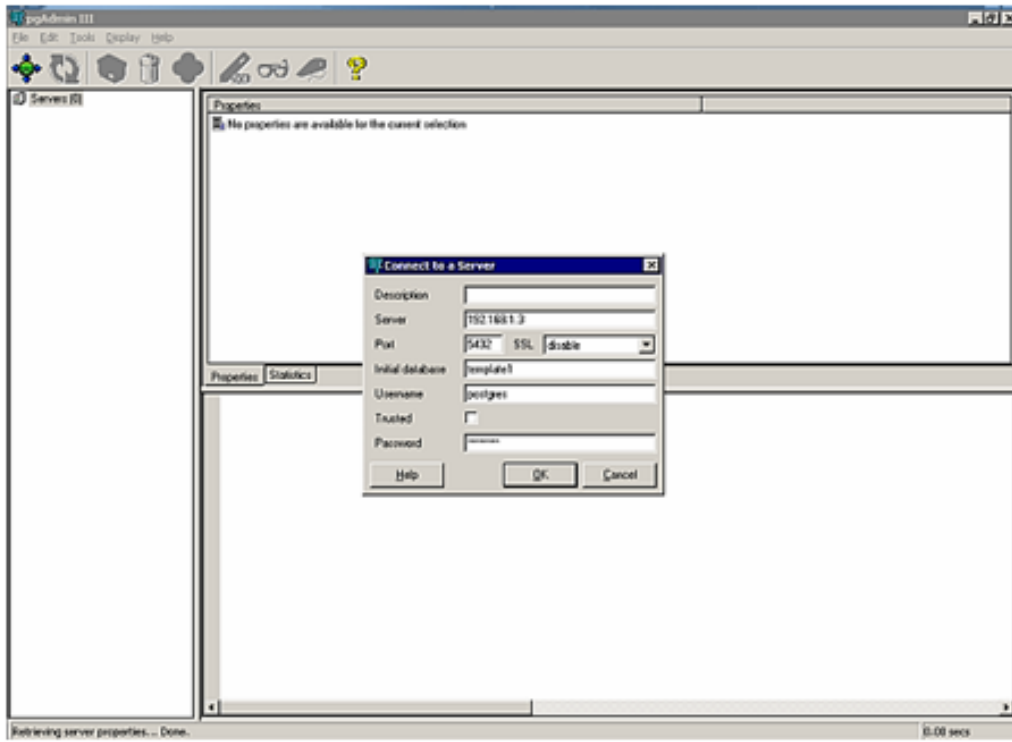


Figure 4-2. Create new system user (step 1)

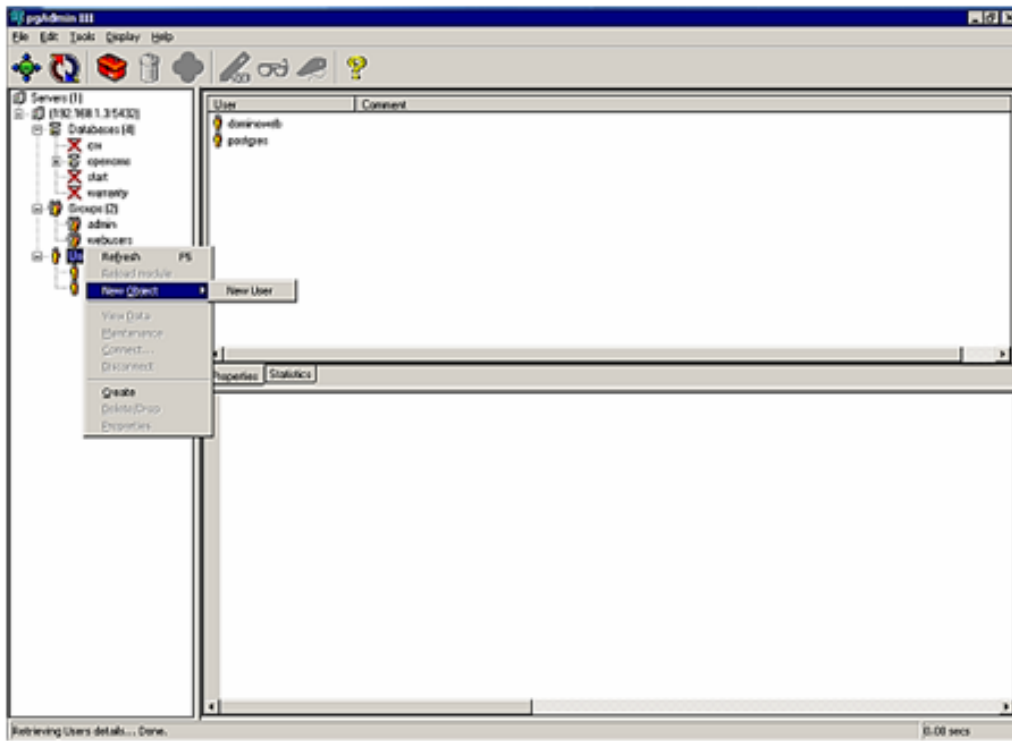
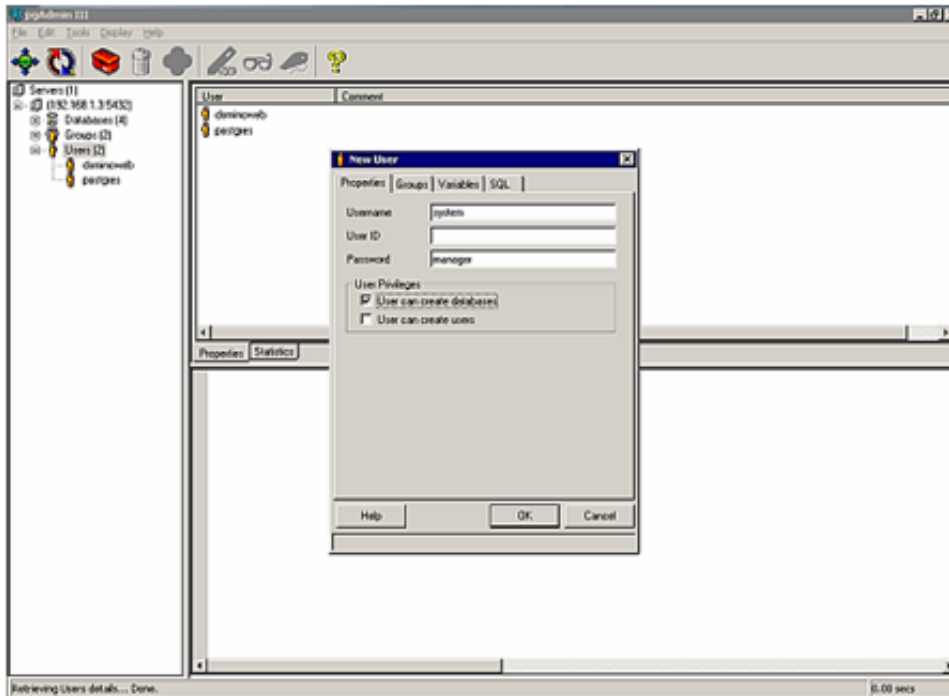
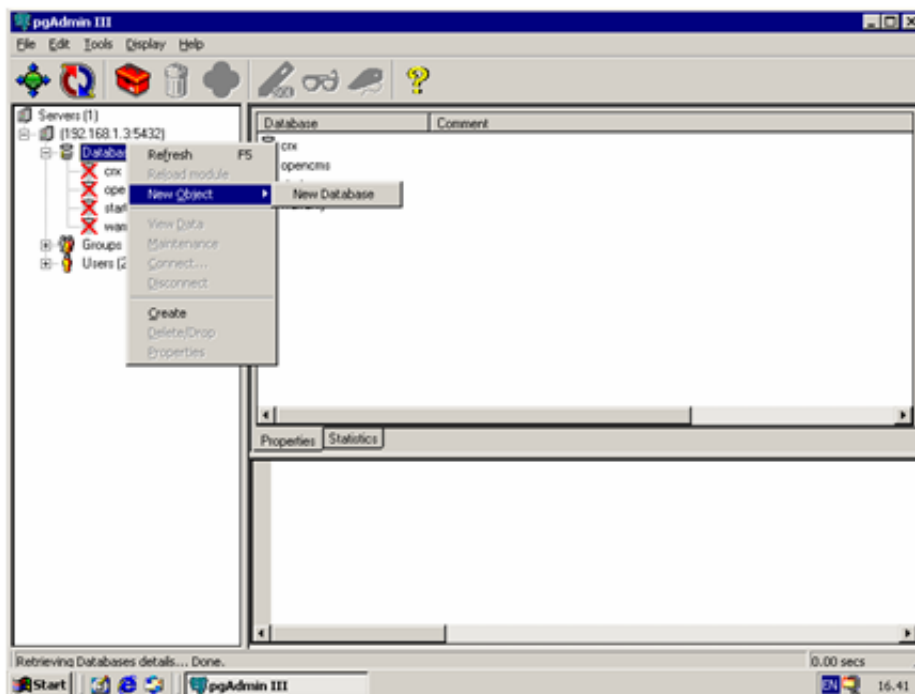


Figure 4-3. Create new system user (step 2)



pgAdmin3 allows you to create and manage databases. Before you can install the *openCRX* database schemas you must install a new database for *openCRX*. To do this start the pgAdmin3. The startup screen looks as shown in *Figure 4-4*. Right-click over the database item and select New Object -> New Database in order to create a new database instance.

Figure 4-4. Create new database (step 1)

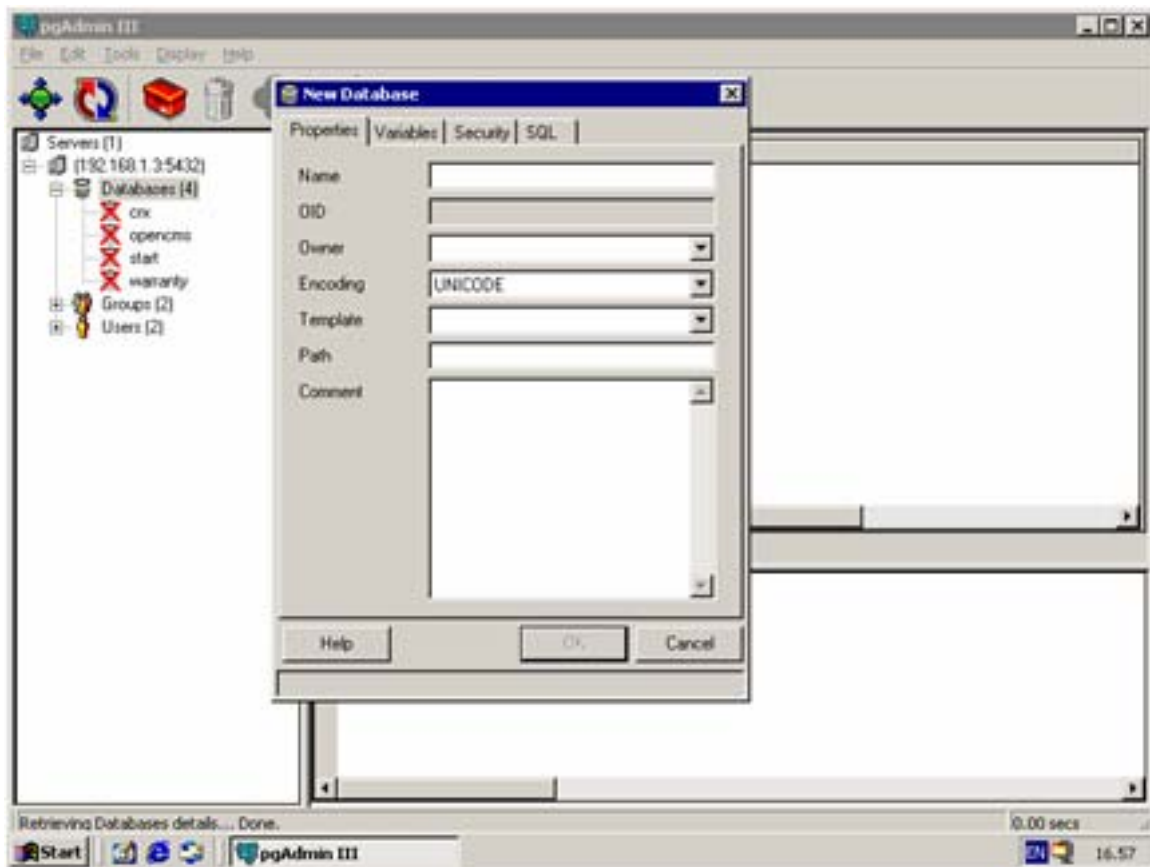


You should now see the first page of the instance creation wizard as shown in *Figure 4-5*. Choose the template Blank. Remember to set up the *system* user as owner.



**Important** Set the encoding of this new database to **UNICODE**, otherwise you will not be able to use openCRX with full UTF-8 support.

**Figure 4-5. Create new database (step 2)**



# Chapter 5. Create the database with psql terminal

Skip this chapter if you used pgAdmin3 to create your database and continue with Install Database Schema.

Create a *PostgreSQL* user named *system*. Set the password of the user to *manager*. Allow the user to create databases.

## Example 5-1. Create user system with psql terminal

```
su - postgres          # change to your postgresql Account.  
createuser -P system  # Create the user system and ask for a password
```

Create the database **crx-CRX** with the following commands:

## Example 5-2. Create database with psql terminal

```
su - postgres  
createdb -h localhost -E utf8 -U system crx-CRX
```



**Important** Set the encoding of this new database to **UNICODE** by really using the option **-E utf8** in the command *createdb* above. Otherwise you will not be able to use openCRX with full UTF-8 support.

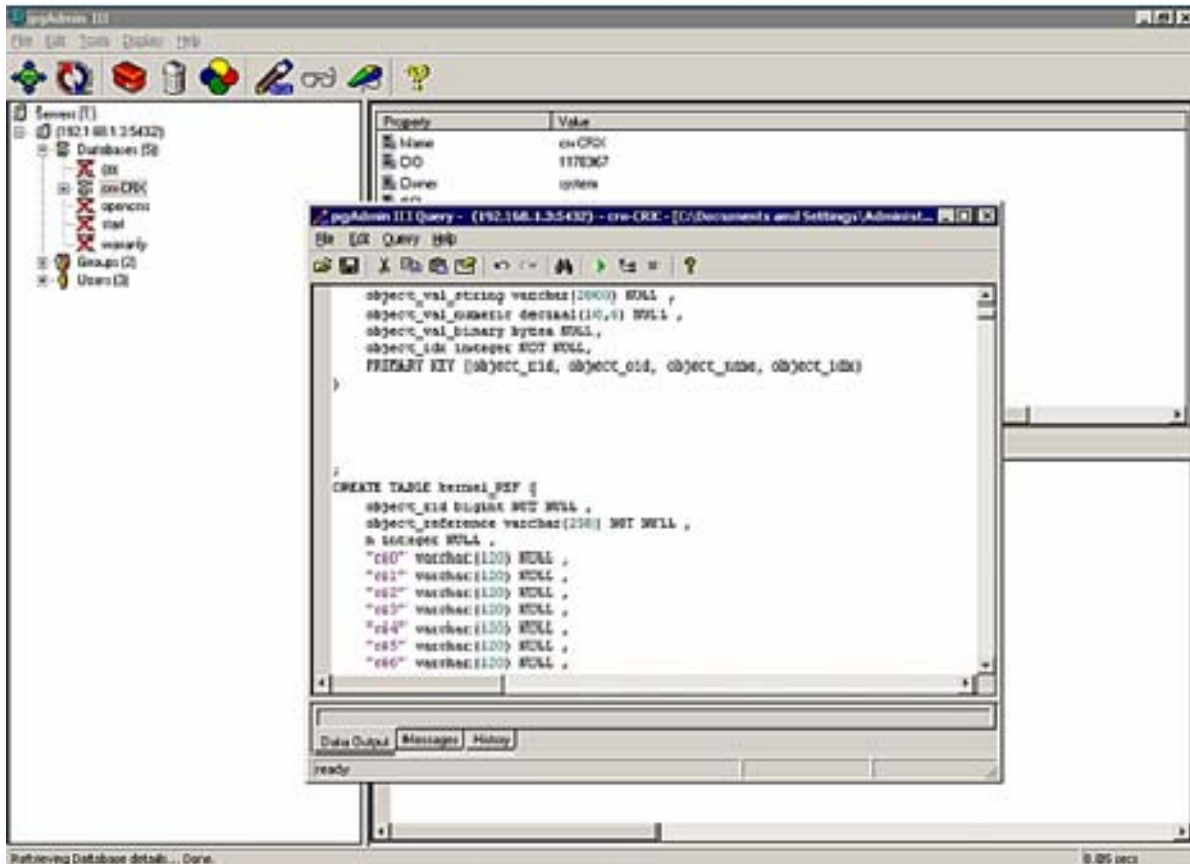
# Chapter 6. Install Database Schema

After creating the database instance and the SQL User you are ready to install the *openCRX* database schema.

Connect to the crx-CRX database as *system* user.

Load and exec the file *dbcreate-tables.sql* with pgAdmin3 query (the sql icon on the top).

Figure 6-1. Install Database Schema



Similarly, load and exec the file *dbcreate-indexes.sql*.

If you prefer using the psql terminal you can install the database schema as follows:

**Example 6-1. install database schema with psql terminal**

```
psql -U system crx-CRX < dbcreate-tables.sql
psql -U system crx-CRX < dbcreate-indexes.sql
```

## Chapter 7. Next Steps

If you have completed successfully the database installation you are ready to use the *openCRX* database. The application server installation guides explain how to connect the application server to the *openCRX* database instance.

# Appendix A. Appendix

# Bibliography

[01] *openCRX - the leading open source CRM solution*, [opencrx.org](http://www.opencrx.org).

@ <http://www.opencrx.org> (<http://www.opencrx.org>)

[02] *openMDX - The leading open source MDA platform*, [openmdx.org](http://www.openmdx.org).

@ <http://www.openmdx.org> (<http://www.openmdx.org>)