



World Health
Organization



WHO OpenMRS – Express HIV Administration Guide

December, 2008 - Version 1.0

Prepared by
Mathieu DINEL



Version	Date	Who
0.1: Initial version	15/12/08	Mathieu DINEL
0.2 Updates	29/12/08	Xavier Scholl
0.3 Updates	08/01/09	Xavier Scholl
1.0 First release	22/01/09	Xavier Scholl

Contents

1	Purpose of the document	5
2	Installation.....	6
2.1	Requirements	6
2.2	Installation context.....	6
2.2.1	Obtaining OpenMRS.....	6
2.2.2	Installed software	7
2.2.3	Directory structure.....	7
2.2.4	Windows Start Menu.....	8
2.3	Installing OpenMRS.....	8
2.3.1	Installer	8
2.3.2	Installation diagram.....	8
2.3.3	Installation process	10
2.3.4	Splash screen	10
2.3.5	License screen.....	10
2.3.6	Options screen.....	11
2.3.7	Missing software screen	12
2.3.8	Installation progress screen.....	12
3	Uninstall process.....	14
3.1	Uninstallation process	14
3.1.1	Splash screen	14
3.1.2	Uninstallation screen.....	14
4	Troubleshooting the install/uninstall process.....	16
4.1.1	Java install problems	16
4.1.2	Previous copy of OpenMRS detected.....	16
4.1.3	Running OpenMRS Express:HIV	16
5	Default settings.....	17
5.1	MySQL Server	17

5.2	Tomcat Application Server	17
5.3	OpenMRS Express:HIV	17
6	Starting / Stopping OpenMRS Express	18
6.1	Starting OpenMRS	18
6.2	Stopping OpenMRS.....	18
7	Database Management.....	19
7.1	Database backup.....	19
7.2	Database recovery	20
8	User management.....	23
8.1	Manage Users	24
8.2	Manage Roles.....	26
8.3	Modify a Role / Manage privileges	27
8.4	Alert Management	27
9	Limitations.....	30
9.1	OpenMRSExpress Without Infopath	30
9.2	Infopath 2003.....	30
9.3	OpenMRS upgrade.....	30
10	External links	31

Figures

Figure 1 Administration panel.....	23
Figure 2 User Management	24
Figure 3 Add new user function	24
Figure 4 User creation	25
Figure 5 Role Management	26
Figure 6 Role Management, privileges display	26
Figure 7 Creating a new role	27
Figure 8 Alert Management.....	28
Figure 9 Alert creation	28
Figure 10 Alert management, user picker pop up window.....	28
Figure 11 Alert list	29
Figure 12 Alert display	29



1 Purpose of the document

This document describes main IT administration tasks related to OpenMRS ExpressHIV.

Audience :

- System administrator
- OpenMRS administrator
- OpenMRS power user



2 Installation

2.1 Requirements

In order to install and use OpenMRS Express:HIV, you must have the following:

- A computer with a 1GHz Pentium IV processor or better,
- at least 512 Mb of RAM,
- 1Gb of available hard disk space.
- Windows XP SP2 or Windows Vista
- Adobe Acrobat Reader
- FireFox 2.0 or greater
- Microsoft InfoPath 2007
- C drive does exist.

Microsoft Infopath installation is required for OpenMRS formularies management. Due to license issues, its installation is optional.

Acrobat Reader and Firefox are required. Installations are left to the user, without interaction with the OpenMRS installation.

Internet Explorer and Microsoft InfoPath 2003 are compatible with OpenMRS but are not supported.

2.2 Installation context

To install OpenMRS Express, you must have administration privileges.

If a previous version of OpenMRS Express is installed, it has to be uninstalled first (see 3 Uninstall process). The installer script will detect the previous version and pop a warning message.

This reference guide describes administration tasks related to OpenMRS Express:HIV and installer, release 7.

2.2.1 Obtaining OpenMRS

The reference website to download OpenMRS Express package is:

http://www.who.int/kms/initiatives/openmrs_express/en/

Alternatively, OpenMRS CD-ROM does contain:

- OpenMRS installer
- OpenMRS and third party software
 - Apache Tomcat 6.0.16
 - Birt runtime 2.2.2



- MySQL 5.0.51a win32
 - Java jre 6u5 windows-i586
 - OpenMRS Lite DB Sep-15-2008
 - OpenMRS compatibility and admin scripts
 - OpenMRS license file
 - Installation tools and SQL scripts
- Optional software:
 - Firefox 3.0
 - Acrobat Reader
- OpenMRS Google Tech talk video by Paul Biondich and Bruke Mamlin, August 23, 2007.
 - http://www.youtube.com/watch?v=tou-Ei_AKAw
- Documentation
As PDF files:
 - OpenMRS ExpressHIV Reference IT Admin Guide
 - OpenMRS ExpressHIV User Manual

2.2.2 Installed software

This distribution package contains applications and programs from a variety of sources. The package includes the following:

- Java 6, update 5
- Apache Tomcat 6.0.16
- Eclipse BIRT 2.2.2
- MySQL 5.0.51a
- Super-Sed 3.62
- Microsoft sleep utility
- OpenMRS core 1.3
- birt-1.8 module
- clinicalsummary-3.0 module
- formentry-3.2 module
- WHOmod 0.16 module

2.2.3 Directory structure

OpenMRS Express is installed under \$ProgramFiles\WHO\OpenMRS (\$OPENMRS_HOME) with the following architecture

The installer does select the installation path according to the following preference order:

- \$ProgramFiles (Usually C:\Program Files)
- C:\Program Files (Hard coded)
- C:\OpenMRS.

The installation path is registered in the OPENMRS_HOME variable.

- \$OPENMRS_HOME
 └_ *apache-tomcat-6.0.16*



```
_ birt-runtime-2_2_2
_ mysql-5.0.51a-win32
_ scripts
_ documentation
_ backup
```

The installer does also create an OpenMRS directory containing the file *openmrs.runtime.properties* and place other needed resources in the directory defined by `$ALLUSERSPROFILE\OpenMRS` (C:\Documents and Settings\All Users on windows XP). The variable `OPENMRS_APPDATA` will reference this path.

2.2.4 Windows Start Menu

If the user requires it, the installer does create an entry in *Windows Start Menu > All Program > OpenMRS*, with the following links to:

- o Access OpenMRS (`http://127.0.0.1:$tomcat_port/openmrs`)
- o OpenMRS ExpressHIV Reference IT Admin Guide
- o OpenMRS ExpressHIV User Manual
- o Admin
 - Archiving OpenMRS database
 - Stop OpenMRS
 - Start OpenMRS
 -

If Firefox is detected, “access OpenMRS” will start OpenMRS within Firefox. Otherwise, OpenMRS does start using your preferred browser.

Tomcat and MySQL services name must appear as “OpenmrsTomcat” and “OpenmrsMySQL”. OpenMRS start/stop will start/stop Tomcat and MySQL.

2.3 Installing OpenMRS

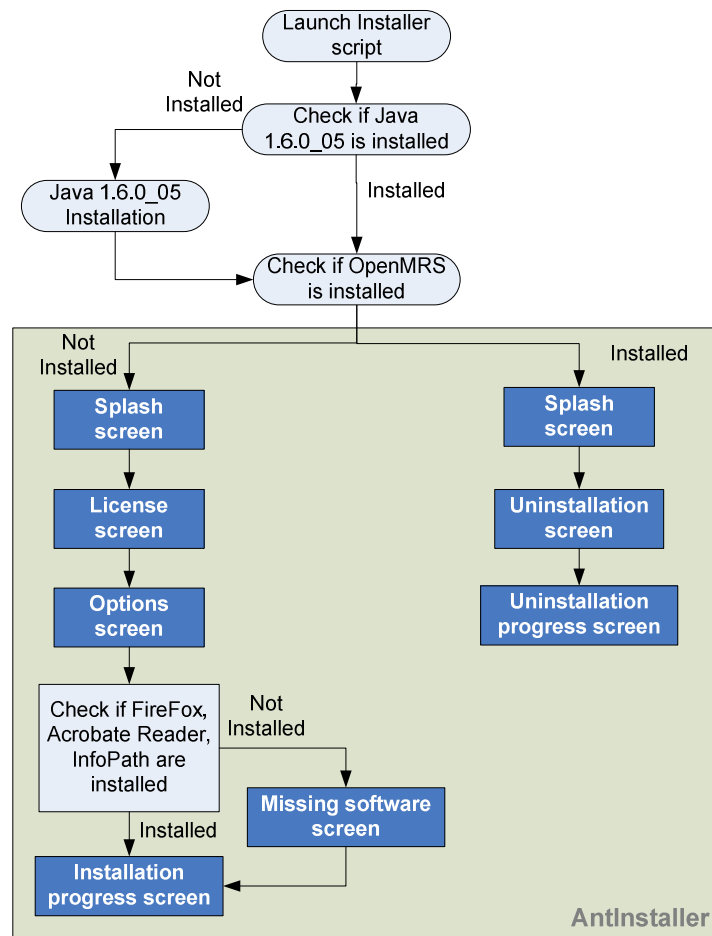
2.3.1 Installer

The installer will be created using AntInstaller. AntInstaller is an Open Source java software that build an installer using an XML configuration file and Apache Ant. It requires java 1.4 or greater to be executed.

If Java 1.6.0_05 is not installed, the Java 1.6.0_05 installation will be first run silently (no user notification or set up) to allow ant installer to be executed.

2.3.2 Installation diagram

The installation steps are linked as shown below:



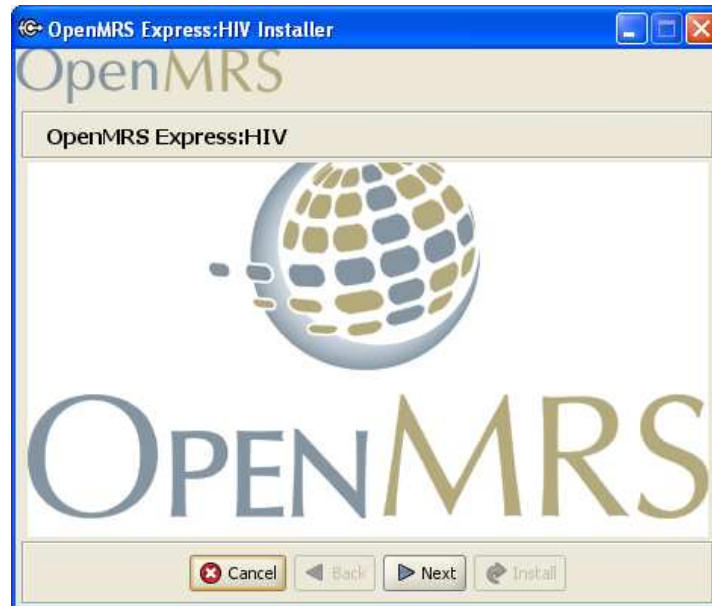


2.3.3 Installation process

Installer can be started from the CD ROM with the **Install** script

2.3.4 Splash screen

Welcome screen presenting the OpenMRS Logo



2.3.5 License screen

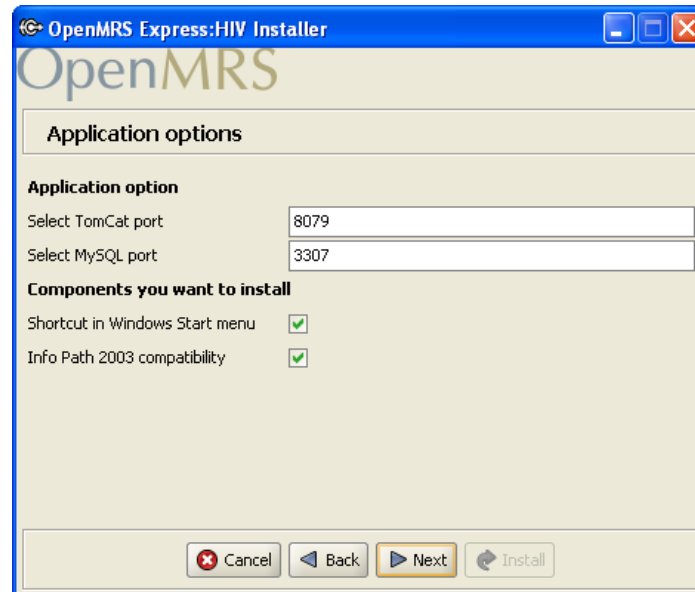
Display the OpenMRS License.





2.3.6 Options screen

Set application options



A check is made when the user clicks Next on Tomcat and MySQL port. These values can only be between 1024 and 65535.

The installer does update the *openmrs.runtime.properties* file with port values.

By default, the compatibility checkbox is checked or unchecked according to the InfoPath version detected. If InfoPath is not installed, the checkbox is not checked.

Warning: the compatibility does start the database, modify database entries and then stop it.



2.3.7 Missing software screen

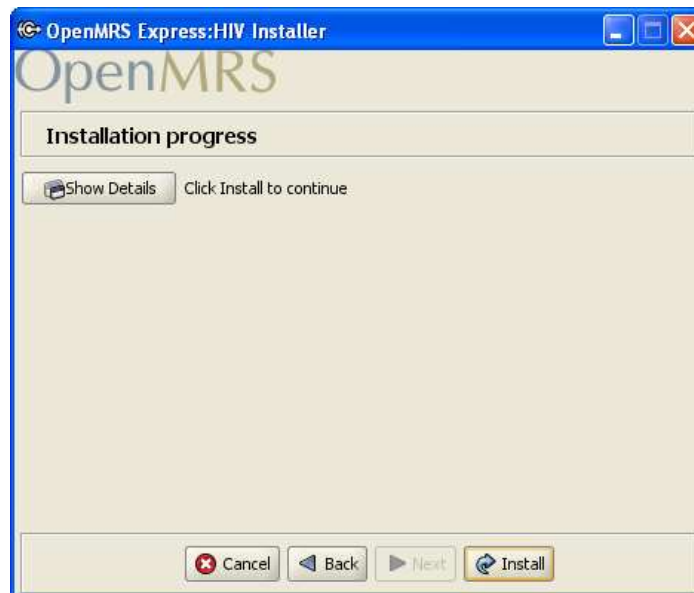


If missing files are detected, the “Not Detected” labels appears

- The user can installed them from OpenMRS CDROM directory “*Optional software*”

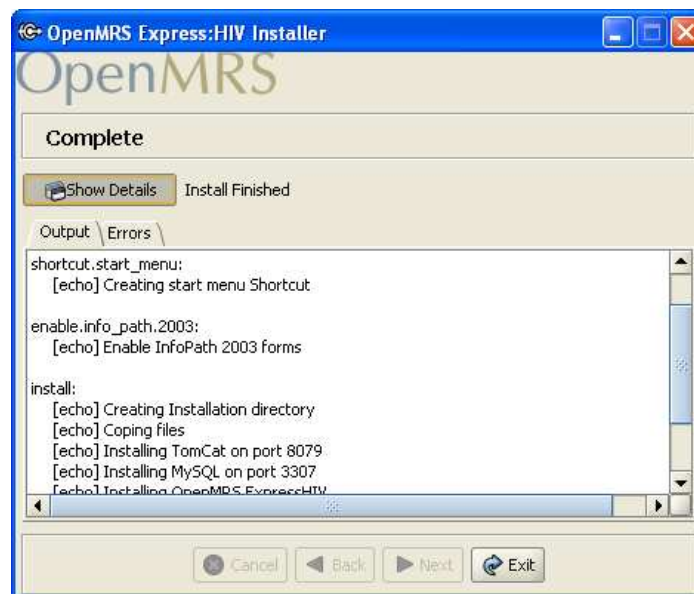
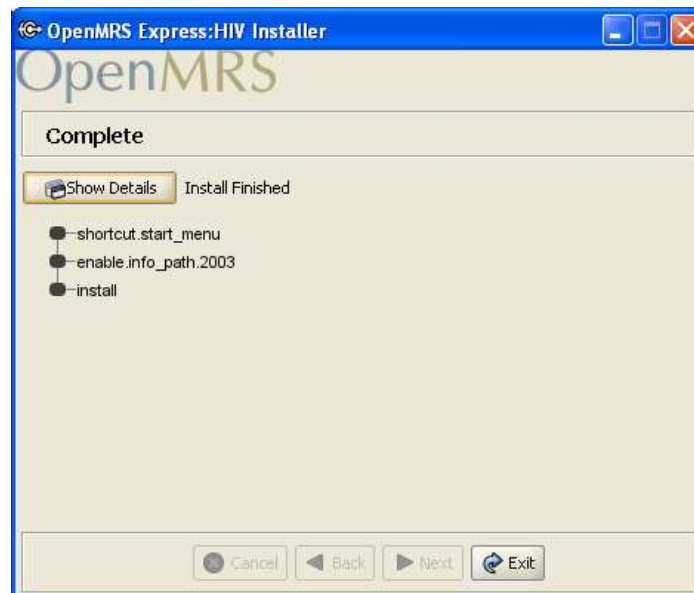
2.3.8 Installation progress screen

Screen presenting the installation progression





When the user clicks Install button, the installation starts. A popup message indicates when the installation is finished.



Clicking on the show detail button will display more information about the installation



3 Uninstall process

3.1 Uninstallation process

OpenMRS removal can be started from:

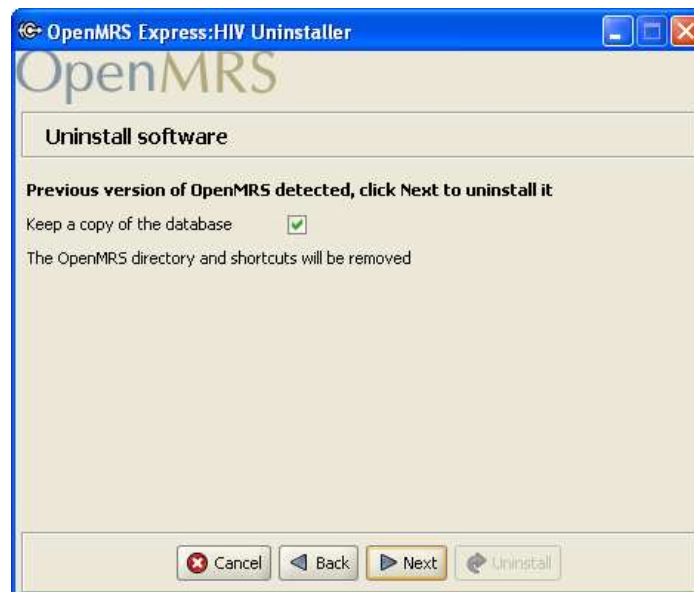
- \$OPENMRS_HOME /script/uninstall
- If OpenMRS is already installed, start the installer

NB: Control Panel > Add/Remove Programs doesn't show OpenMRS entry due to the installation requirements (no registry entry). MySQL and Tomcat don't appear because they are just copied and not installed using their respective installers.

3.1.1 Splash screen

Same splash screen as the installer

3.1.2 Uninstallation screen



If an OpenMRS Express application is found on the system, the installer asks the user if he wants to uninstall it.

By default, the database is archived; a check box does propose to not make the copy.

The uninstaller detects an existing installation or remaining data according to the existence or content of the following directories:

- ProgramFiles (Usually C:\Program Files)
- C\Program Files (Hard coded)



- C:\OpenMRS.

Optional software are left unchanged:

- Firefox 3.0
- Acrobat Reader
- InfoPath 2007

JAVA is also left unchanged due to potential dependency with other applications. A warning message does inform the user.

- Java jre 6u5 windows-i586

If database must be deleted, the uninstaller does:

- Delete \$OPENMRS_HOME and \$OPENMRS_APPDATA directories
- Clear the start menu shortcuts

If database is kept, the uninstaller does:

- Create a database archive into \$OPENMRS_HOME\backup
- Delete \$OPENMRS_HOME and \$OPENMRS_APPDATA directories, **EXCEPT \$OPENMRS_HOME/backup**
- Clear the start menu shortcut



4 Troubleshooting the install/uninstall process

4.1.1 Java install problems

Windows may display a Security Warning when running the install. If it does so, please UNCHECK the "Always ask before opening this file" option, then, click on Run. This will allow the installation script to complete its task.

4.1.2 Previous copy of OpenMRS detected

If a previous copy of OpenMRS is detected, the user is required to uninstall the copy and re-launch the installer.

4.1.3 Running OpenMRS Express:HIV

- If you are using a firewall, when starting OpenMRS Express:HIV, you may be notified that a process is trying to connect or listen to the network. If this occurs, allow the connection to go through.
- If you get an error when attempting to connect to OpenMRS Express with your browser for the first time, wait a few moments for the server to startup then refresh the page.



5 Default settings

5.1 MySQL Server

Server port	3307
Root password	not set
OpenMRS Express:HIV application username	test
OpenMRS Express:HIV application password	test

5.2 Tomcat Application Server

Server port	8079
Administrative username	Admin
Administrative password	system

5.3 OpenMRS Express:HIV

Default user	Default
Default user password	abc123
Administrative user	admin
Administrative user password	test



6 Starting / Stopping OpenMRS Express

6.1 Starting OpenMRS

Open the Windows “Start” Menu

- OpenMRS
 - Admin
 - Start OpenMRS

This action will start each application related to OpenMRS such as Tomcat and MySQL

6.2 Stopping OpenMRS

Open the Windows “Start” Menu

- OpenMRS
 - Admin
 - Stop OpenMRS

This action will stop each application related to OpenMRS

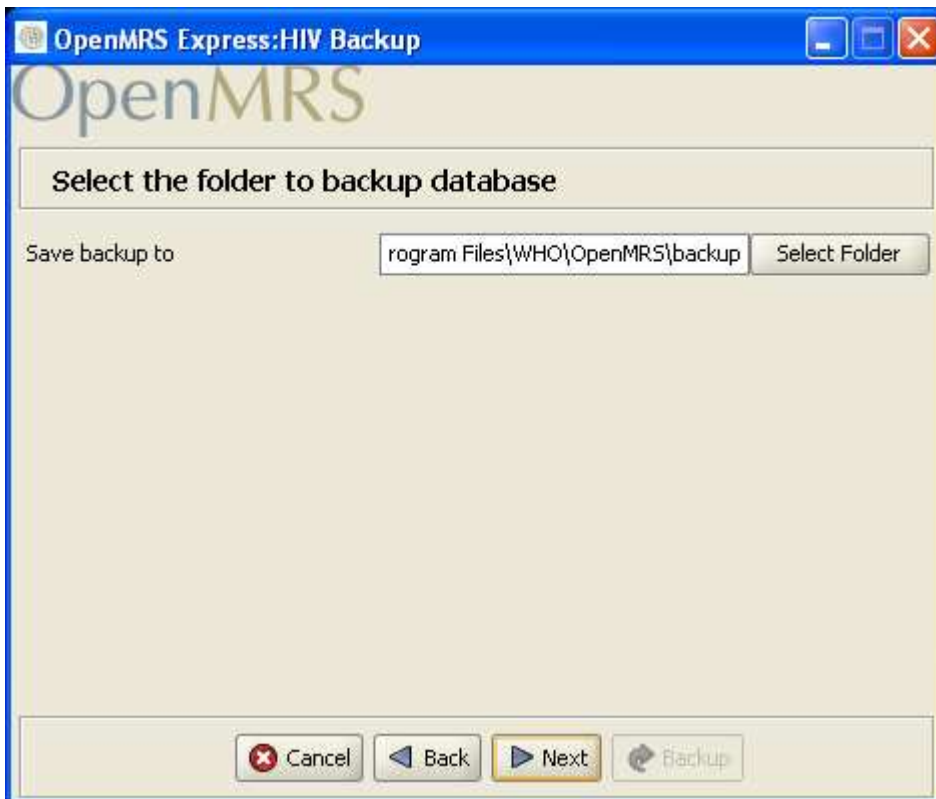


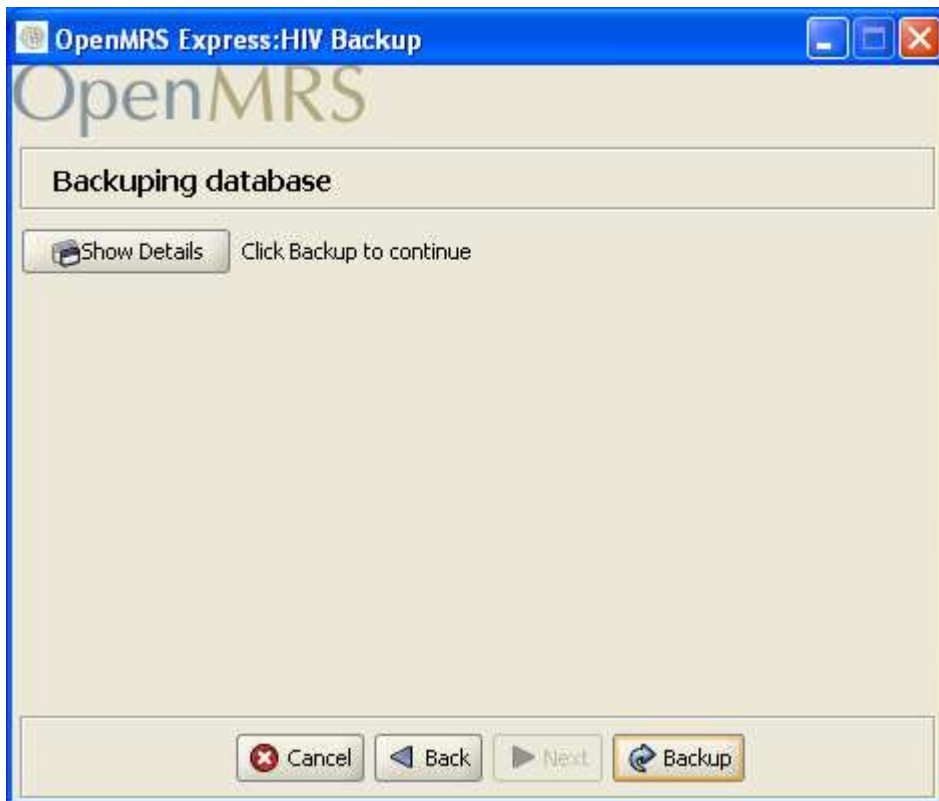
7 Database Management

7.1 Database backup

To create an OpenMRS database backup

1. Open the Windows “Start” Menu
 - OpenMRS
 - Admin
 - Backup OpenMRS Database
2. If OpenMRS is running, it will be stopped.
3. The backup script will generate an encrypted `openmrs_express_db_VERSION_TIMESTAMP.sql` file, where VERSION is the release version number of the OpenMRS Express distribution and TIMESTAMP is the moment of execution of the backup.
4. User is asked for a location to save a copy of the backup file

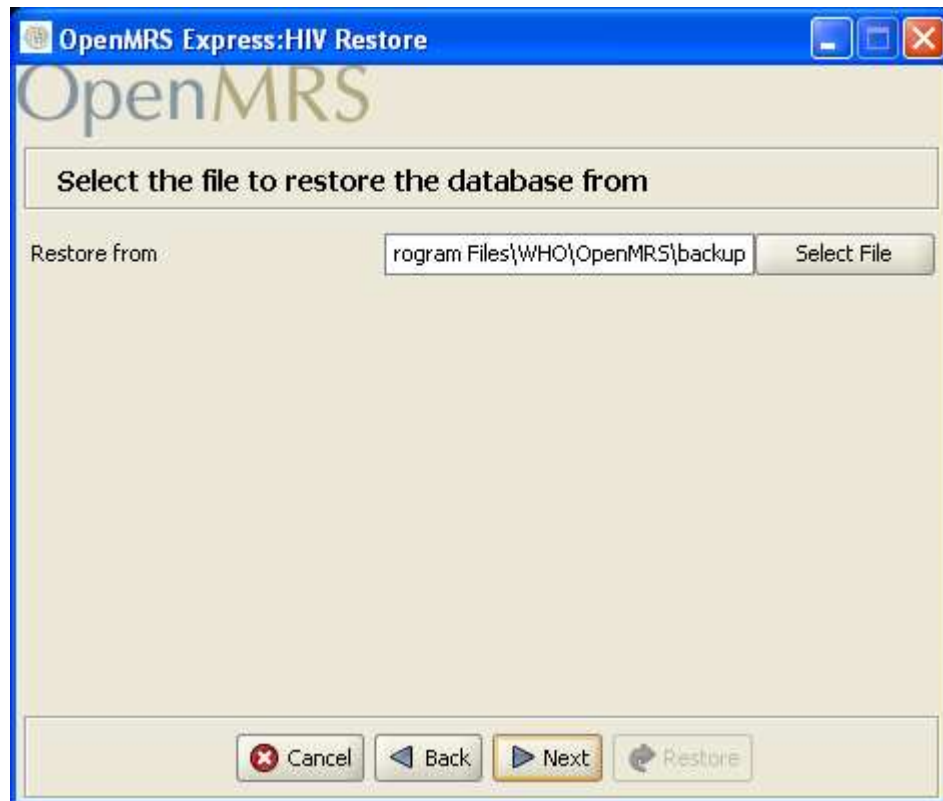




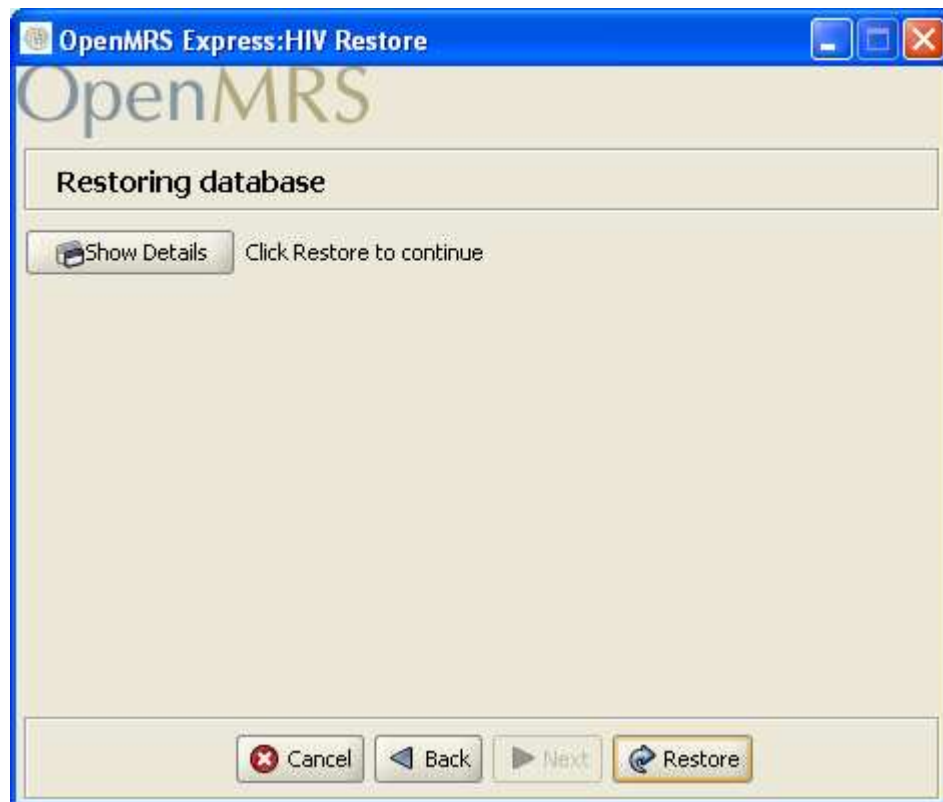
7.2 Database recovery

To recover the database from a backup,

1. Launch the **recover** script located in the OPENMRS_HOME/script folder. (Usually: C:\Program Files\WHO\OpenMRS\script)
2. If OpenMRS is running, it will be stopped.
3. The backup file location will be prompted. Choose the file to recover.



4.



5.

6. The current database will be saved first.



7. The selected backup file will be decrypted
8. The selected backup will then be restored.



8 User management

Roles and Privileges are controlled through the administration screen, under the Manage Users section.

OPENMRS

Home | Find/Create Patient | Dictionary | Cohort Builder | **Administration**

Currently logged in as Super User | [Log out](#) | [My Profile](#) | [Help](#)

Administration

- Users**
 - [Manage Users](#)
 - [Manage Roles](#)
 - [Manage Privileges](#)
 - [Manage Alerts](#)
- Patients**
 - [Manage Patients](#)
 - [Manage Identifier Types](#)
- Person**
 - [Manage Relationship Types](#)
 - [Manage Person Attribute Types](#)
- Encounters**
 - [Manage Encounters](#)
 - [Manage Locations](#)
 - [Manage Encounter Types](#)
- Observations**
 - [Manage Observations](#)
 - [Manage Mime Types](#)
- Orders**
 - [Manage Orders](#)
 - [Manage Drug Orders](#)
 - [Manage Order Types](#)
- Scheduler**
 - [Manage Scheduler](#)
- Programs**
 - [Manage Programs](#)
 - [Manage Triggered State Conversions](#)
- Concepts**
 - [View Concept Dictionary](#)
 - [Manage Concept Drugs](#)
 - [Manage Proposed Concepts](#)
 - [Update Concept Words](#)
 - [Derive Concept Sets](#)
 - [Manage Concept Classes](#)
 - [Manage Concept Datatypes](#)
- Forms**
 - [Manage Forms](#)
 - [Manage Fields](#)
 - [Manage Field Types](#)
- Reports**
 - [Run Reports](#)
 - [Manage Reports](#)
 - [Manage Report Macros](#)
 - [Manage Data Exports](#)
 - [Manage Cohorts](#)
 - [Manage Patient Searches](#)
 - [Manage Report Elements](#)
- Maintenance**
 - [System Information](#)
 - [Audit Patient Identifiers](#)
 - [View Quick Reports](#)
 - [Manage Global Properties](#)
 - [View Server Log](#)
 - [Data Entry Statistics](#)
- Modules**
 - [Manage Modules](#)
 - [Module Properties](#)
- Clinical Summary Module**
 - [Manage Clinical Summaries](#)
 - [Generate Clinical Summaries](#)
 - [View Clinical Summary Queue](#)
 - [View Clinical Summary Directory](#)
- WHO Module**
 - [WHO Patient Import](#)
 - [WHO Patient Rollback Facility](#)
 - [WHO/IMA1 reports](#)
 - [WHO Patient Export](#)
- BIRT Reporting Module**
 - [Manage Reports](#)
 - [Manage Data Exports](#)
- Form Entry**
 - [Upload an XSN](#)
 - [Manage Form Entry Error Queue](#)
 - [Form Entry Information](#)

English (United States) | English (United Kingdom) | français | español | português | italiano | Last build: Sep 04 2008 12:02 PM | Version: 1.3.1.00 Build 5264 | Database Version: 1.3.0.15

Figure 1 Administration panel

OpenMRS uses privileges and roles to control access to data within the system. Privileges define what can or cannot be done in the system (e.g., Edit People or Add User) while Roles are used to group privileges into more manageable grouping. To make the system easier to manage, roles can contain other roles as well as privileges. Parent roles inherit all privileges that exist within the child roles.



8.1 Manage Users

Users can be listed / created using the *Manage Users* function.

System Id	Username	Given	Middle	Family Name	Roles
1. 3-4	guest	Guest	WHO	User	Standard User, Provider
2. 2-6	splinter	Philippe		Boucher	Provider
3. admin		Super		User	System Developer
4. 4-2	default	myGivenName		myFamilyName	OpenMRS Express User

Figure 2 User Management

To create a new user, click on the Add User link. The first step is to set the required information.

To create a new person, enter the person's name and other information below first to double-check that they don't already have a record in the system.

Name

Birthdate or Age


(Format: mm/dd/yyyy)

Gender ☐ Male ☐ Female

Figure 3 Add new user function



All the user data can then be set. Only the password is required to complete the user creation.



Currently logged in as Super User | [Log out](#) | [My Profile](#) | [Help](#)

[Home](#) | [Find/Create Patient](#) | [Dictionary](#) | [Cohort Builder](#) | [Administration](#)

[Admin](#) | [Manage Users](#) | [Manage Roles](#) | [Manage Privileges](#) | [Manage Alerts](#)

User Form

Given	<input type="text" value="User"/>
Middle	<input type="text"/>
Family Name	<input type="text" value="Test"/>
Gender	<input checked="" type="radio"/> Male <input type="radio"/> Female
System Id	(System Id will be generated after saving)
Username	<input type="text"/>
User's Password	<input type="password"/> <i>Must have 6 characters, letters, and numbers</i>
Confirm Password	<input type="password"/> <i>Retype the password (for accuracy)</i>
Force Password Change	<input type="checkbox"/> <i>Optionally require that this user change their password on next login</i>
Roles	<div><input type="checkbox"/> OpenMRS Express User <input type="checkbox"/> Provider <input type="checkbox"/> Standard User <input type="checkbox"/> System Developer</div>
Hide Advanced Options	
Secret Question	<input type="text"/> <i>optional</i>
Secret Answer	<input type="text"/> <i>optional</i>
Birthdate (Format: mm/dd/yyyy)	<input type="text" value="12/01/2008"/> Estimated <input type="checkbox"/>
Birthplace	<input type="text"/>
Citizenship	<input type="text"/>
Civil Status	<input type="text" value="Select"/>
Health Center	<input type="text" value="v"/>
Health District	<input type="text"/>
Mother's Name	<input type="text"/>
Race	<input type="text"/>
Deceased	<input type="checkbox"/>
Voided	<input type="checkbox"/>
<input type="button" value="Save User"/>	

Figure 4 User creation



8.2 Manage Roles

For a more convenient user management, privileges are grouped into roles.

Role	Description	Inherited Roles	Privileges
Anonymous	Privileges for non-authenticated users.		View Navigation Menu
Authenticated	Privileges gained once authentication has been established.		View Locations , View Person Attribute Types ..
<input type="checkbox"/> OpenMRS Express User	The default user type for OpenMRS Express, allows access to all functions of the framework.	Provider	Manage Forms , View Encounters ...
Provider	All users with the 'Provider' role will appear as options in the default Infopath		
<input type="checkbox"/> Standard User	This is the standard user configuration for an OpenMRS Lite installation	Provider	Add People , Manage Forms ...
System Developer	Developers of the OpenMRS .. have additional access to change fundamental structure of the database model.	[Has all roles and privileges]	

Delete Selected Roles

Figure 5 Role Management

The complete privileges list is shown when the mouse pointer is over the *Privileges* column of the *Role* table.

<input type="checkbox"/> OpenMRS Express User	The default user type for OpenMRS Express, allows access to all functions of the framework.	Provider	Manage Forms , View Encounters ... [Manage Forms, View Encounters, Delete Patient Programs, Manage Concepts, Edit Report Objects, Add Cohorts, Delete Observations, Patient Dashboard - View Patient Summary, Edit Users, Manage Reports, View Patient Identifiers, View Patient Sets, Edit FormEntry Error, Edit People, Edit Relationships, Patient Dashboard - View Forms Section, View Tribes, Add FormEntry Queue, Manage Concept Classes, Edit Patient Programs, View Privileges, Delete Users, Manage Programs, Add Concept Proposals, view HIV register, Manage Locations, View Concept Proposals, Manage Global Properties, Manage Modules, View Reports, View Identifier Types, Delete Reports, Patient Dashboard - View Graphs Section, View Administration Functions, View Mime Types, Manage Mime Types, View Concepts, Manage Hello World, Delete FormEntry Archive, Add Patients, Manage Clinical Summaries, Add Reports, Manage FormEntry XSN, Manage Privileges, View Roles, Add Concepts, Edit Observations, WHO Import/Export, Manage Person Attribute Types, Add Patient Identifiers]
---	---	----------	--

Delete Selected Roles

Figure 6 Role Management, privileges display

1. To create a new role, click on *Add Role*



Figure 7 Creating a new role

2. Set the role Name
3. Set the role description
4. Role can inherit from an other, that is to say have the same privileges than the inherited role, plus privileges set in the Privileges section
5. Check the privileges for this role
6. To finish the role creation, click the *Save Role* button

8.3 Modify a Role / Manage privileges

It is strongly recommended to keep privilege allocation and roles as they are defined during system setup.

Modifying roles or privilege may prevent OpenMRS Express from running, accessing data or reports.

Such tasks are reserved to expert users. Their description is out-of-scope of the present document.

8.4 Alert Management

Alerts can be sent to a specific user, or to users having a certain role, using the *Administration* → *Users* → *Manage Alert* function. Alerts are a way to distribute messages among your OpenMRS community. It does not automatically monitor application values.



The screenshot shows the 'Alert Management' page with a navigation bar at the top containing links: Admin, Manage Users, Manage Roles, Manage Privileges, and Manage Alerts. Below the navigation bar is the 'Alert Management' title and a link 'Add Alert' with a red '1' next to it. A table titled 'Alerts' is displayed with columns: Alert Text, Assigned To, Date To Expire, and a link 'Include Expired'. Below the table is a button 'Expire Selected Alerts'.

Figure 8 Alert Management

1. To create an alert, click on *Add Alert*. The form alert will be displayed.

The screenshot shows the 'Alert Management' form with the following fields and annotations:

- Alert Text:** A text input field containing 'This is a test alert message' with a red '2' next to it.
- Recipients:** A list box containing 'myGivenName myFamilyName' with a red '3' next to it. To the right are buttons: 'Add', 'Remove', and 'Go to User'.
- Roles:** A dropdown menu set to 'None' with a red '4' next to it. To the right are buttons: 'Add Role' and 'Remove'.
- Satisfied By Any:** A checkbox with a red '5' next to it. The text next to it says: 'Alert will be marked read for all recipients once one recipient does marks it.'
- Date To Expire:** A date input field containing '12/31/2008' with a red '6' next to it.
- Save Alert:** A button with a red '7' next to it.

Figure 9 Alert creation

2. Fill in the Alert text
3. Click Add to select the alert destination user. A window will popup to allow the user selection. Click on the user row to select it. More than one user can be picked.

The screenshot shows a 'Find User on Name' popup window with a search input field and a table of users. The table has columns: System Id, Username, Given, Middle, and Family Name. The text 'Viewing 1-4 of 4' is displayed above the table.

System Id	Username	Given	Middle	Family Name
1. 3-4	guest	Guest	WHO	User
2. 2-6	splinter	Philippe		Boucher
3. admin		Super		User
4. 4-2	default	myGivenName		myFamilyName

Figure 10 Alert management, user picker pop up window

4. Choose a Role in the *Roles* list and click *add Role* to alert the users having this role.
5. Choose whether the alert will be marked for everyone, once one recipient marks it by checking the *Satisfied By Any* checkbox
6. Choose the Expire date
7. Save the alert by clicking *Save Alert*. A confirmation message will appear and the alert will be listed in the *Alerts* area



Alerts			Include Expired
Alert Text	Assigned To	Date To Expire	
<input type="checkbox"/> This is a test alert message	1 recipient	Dec 31, 2008	

[Expire Selected Alerts](#) **8**


Figure 11 Alert list

This alert message will be displayed until the date set by the administrator in the field *Date To Expire*.

Alerts can be expired (not displayed) by selecting one and clicking the *Expire Selected Alerts button* (8)



Figure 12 Alert display

The recipient marks the alert by clicking on the *Mark this Alert as Read* button  on the right of the message.



9 Limitations

9.1 OpenMRSExpress Without Infopath

Due to licence issues, Microsoft Infopath installation is optional.

This software is required to create and modify OpenMRS fomulars.

If Infopath is not installed, OpenMRS will allow the user to manage patients and access most of the application functions EXCEPT filling forms and creating new ones.

9.2 Infopath 2003

Microsoft Infopath 2007 is the only supported version.

If you intend to use Microsoft InfoPath 2003, a compatibility script is delivered AS IS during OpenMRS the installation.

If the enable_infopath_2003_forms.cmd script, located in the OpenMRS_Install directory, was launched, the 2003 form version will also be available.

9.3 OpenMRS upgrade

OpenMRS Installer version 1.0 do not manage database migration from former installation (beta 6 and previous), located in C:\OpenMRS.



10 External links

OpenMRS Express online documentation and release notes

<http://groups.google.com/group/openmrs-express/web/openmrs-express-hiv>

OpenMRS Express page at www.who.int

http://www.who.int/kms/initiatives/openmrs_express/en/index.html

OpenMRS Google Tech talk video by Paul Biondich and Bruke Mamlin, August 23, 2007.

http://www.youtube.com/watch?v=tou-Ei_AKAw

Online support can be submitted to

<http://.....discussion> forum sur le groupe