INSTALLATION & STARTER GUIDE

DesInventar Server 9

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Send Us Your Comments

This section describes how to contact LA RED/**DesInventar** Web-Development team if you have issues with the documentation or software. It also provides a list of useful resources for administrators and developers.

Send us email to	**If you...**
rajesh.sharma@undp.org	Have issues with Documentation
jserje@canada.com	Have issues with Software

You can visit us at http://www.desinventar.org
And at http://undp.desinventar.net

This product may use or reference software from the following third parties:

Official Java/JSP site:
http://java.sun.com

Oracle Corporation (Oracle 8i, 9i)
http://www.oracle.com

Microsoft Corporation (MS Visual Basic, MS Access, MS SQL Server)
http://www.microsoft.com

Apache Software foundation (Apache and Tomcat servers):
http://www.apache.org

Official Tomcat web site:
http://jakarta.apache.org/

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Installation Overview

For most users installation is a straightforward process, as simple as inserting a CD in the disc drive and following the instructions of the installer.

Some other more sophisticated users may want to take advantage of advanced Database management systems and/or other versions of Tomcat or other Java Application Servers. Those users should follow the instructions in the Manual Installation Section.

DesInventar-web is a 100% pure Java application running using a JSP (Java Server Pages) powered interface. As such it requires a Java Virtual Machine (JVM) and a JSP/Servlet container to run and support al its features, usually the Apache Tomcat server.

Introducing **DesInventar Server 7**

One of the flagship products of LA RED, **DesInventar** is a full-featured, 100% Java, platform and database independent Internet application. It allows multiple simultaneous users being capable of remotely updating the Disaster inventory databases taking advantage of Internet connections.

As its sibling, the stand-alone version of **DesInventar** it is composed of two clearly separated modules, a data management/entry tool and an analysis/query tool.

DesInventar supports the most popular search engines and databases, including Oracle, MS SQL Server, PostgreSQL, MySQL and MS Access.

DesInventar is dynamically configured, fed and controlled via a web interface powered by a Java Application Server.

This JSP/Java implementation has been successfully tested in the following OS platforms:

- Windows (98, 2000 pro, 2000 server, 2003 server, XP home/Pro).
- Sun Solaris 8
- Linux Redhat 7.2
- Hewlett Packard HP-UX 11

This document focuses entirely in the deployment and installation of **DesInventar** in Windows environments. However, it can be used as general guide for other operating systems, in which it must be installed manually.

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DesInventar Requirements

There are several requirements to run the System (in this document the word 'System' is used as a synonym of '**DesInventar'**):

Internet Connection requirements

Clients:
DesInventar makes intensive use of the connection to Internet. A dial-up connection to the Internet is considered enough generally for Clients, but depending on user requirements it can provide a slow service.

A high-speed Internet connection is highly recommended. The higher the volume of Datacards to retrieve and process, the higher speed recommended.

Servers:
The **DesInventar** Server must run in an environment with high Internet connectivity. In case of an Intranet server, a normal LAN (10/100 baseT) will be more than enough.

For Internet servers, the bandwidth must be calculated base on number of clients, expected size of the queries and updates and response time expectations.

Please note that in many cases **DesInventar** will require a lot of bandwidth, which can be an issue especially if **DesInventar** is to be run in the same machine that serves another web sites. **DesInventar** will consume also processor, memory and database resources.

In such cases is recommended to run **DesInventar** in a separate machine with an independent Internet connection.

Software requirements

Being a pure Java application, **DesInventar** can run in almost any software platform. It has been tested and successfully run in the several Operating Systems. However, this guide is intended for administrators of Windows operating systems.

While Clients of DIS7 can run in almost any version of Windows higher that Win95, Servers should run at the minimum in one of the following:

Windows NT, Windows 2000 Server or Windows Server 2003.

In the case of Intranet servers Windows 2000 Profesional or Windows XP professional can be considered.

Manual Installation Requirements:

The main requirement to implement a DI Server is an appropriate JVM, supporting Java2 Standard Edition, SDK version 1.3 or higher. The System also requires a JSP/Servlet container that implements the Servlet 2.3 and JSP 1.2 specification.

No extra software is required (except the database software, of course) in order to run **DesInventar** itself.

Among others, the following Web Servers and Application Servers comply with these requirements:

- Tomcat 4 or 5
- IBM Websphere
- Bea WebLogic
- Sun ONE application Server
- Sun Java Web Server
- Oracle Application Server

Database requirements

DesInventar software uses JDBC to connect to relational database engines. Although in theory the JDBC presents a uniform interface to any 'standard' SQL driven database, the reality is that there are several incompatibilities among the different implementations of SQL and datatypes in the market.

DesInventar has been tested with the following database/indexing systems:

- Oracle 8i, Oracle 9i, Oracle 10g, Oracle 10express.
- MS Access
- MS SQL Server 2000 or higher
- PostgreSQL 7.4 or higher

In theory **DesInventar** should run MySQL with no problems, but newer versions hasn't been tested yet.

No tests have been performed on other databases like DB2, etc.

Hardware requirements

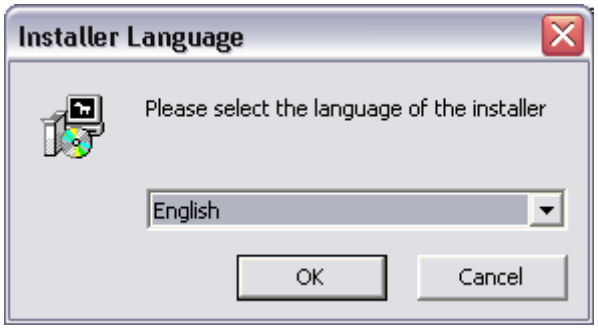
DesInventar requires:

- a Minimum of 256 Mb. Of Ram, that may be higher depending on the number of concurrent users.
- 100Mbs approximately for Java and Tomcat and depending on the number of databases and documents (DATACARDS) anything above 100Mbs of additional hard disk space.

Using the DesInventar Server Installer

The installer can be obtained either in a distribution CD or downloaded from the Internet.

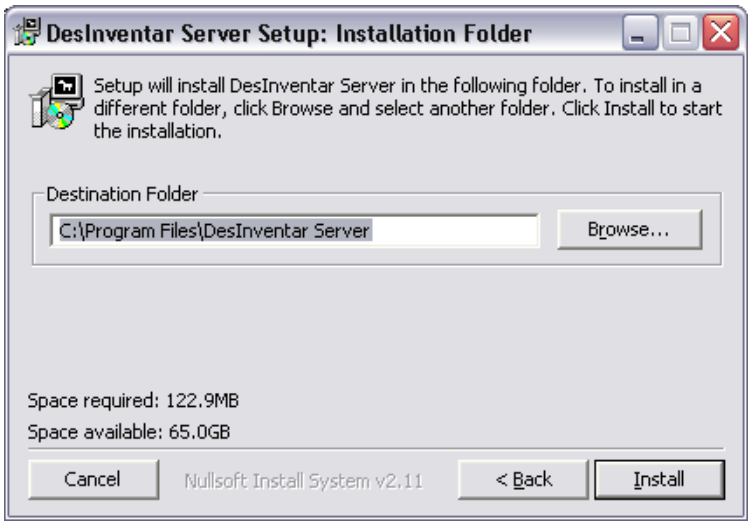
Once you insert the DesInventar Server 7 installation CD (or click on the DesInventarServer-installer.exe downloaded from the Internet, you should see the following language selection screen:



Click on OK to continue and get the License acceptance screen:

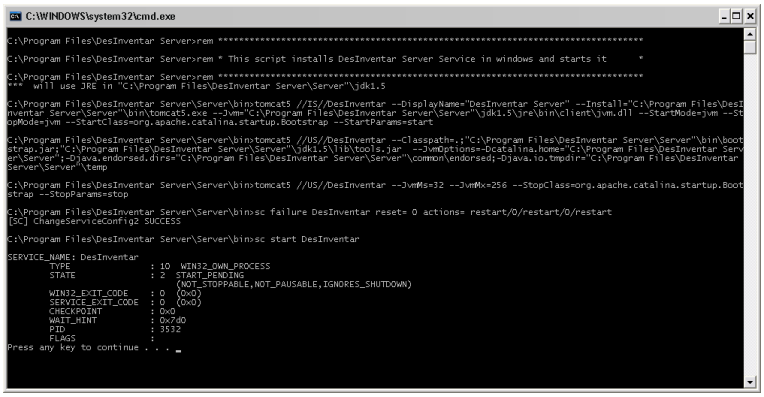
Please read carefully the terms of the license. Note that while you are licensed to use, modify, distribute or otherwise take advantage of the software it's copyright belongs to LA RED (La Red de Estudios Sociales en Prevención de Desastres en América Latina), and you are require to conserve the copyright notice and license in any distribution you make of this or any modified product.

Please click on the checkbox right beside "I accept the terms in the License Agreement" in order to continue. At this point the button marked "Next" will be enabled. Click on it to get the Folder selection screen:



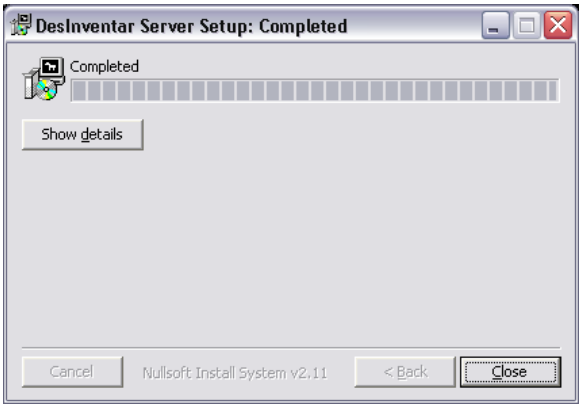
If you want the Server to be installed somewhere else you can use the “Browse” button to select the installation folder. Once you are done, just click on the “Install” button.

The system will copy all required files and on successful completion of the copy it will open black window that looks like this:



Please note the last few lines should describe the recently installed DesInventar service (“Service name: DesInventar”…).

Press the Enter key to continue. The installer should now be showing the “Completed” screen:



Click on "Close". You may now enter DesInventar. Please follow the steps outlined in the next few sections, which will guide you through the basics steps needed to start DesInventar Server.

Once you are up and running we suggest you continue with the DesInventar – Tutorial, which will help you with the basic steps to query and analyse your disaster databases.

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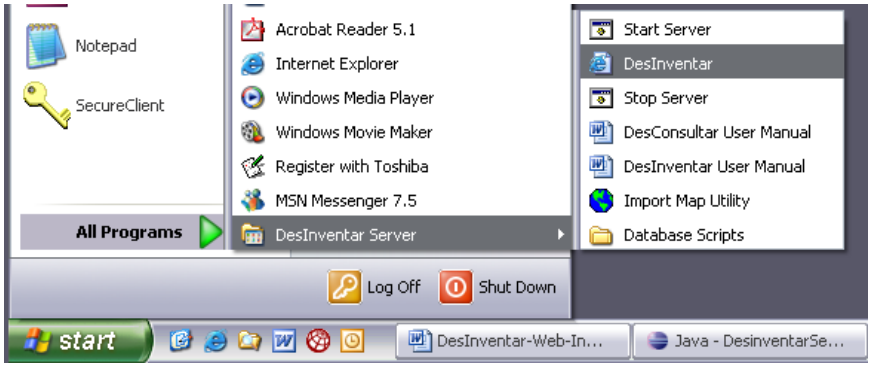
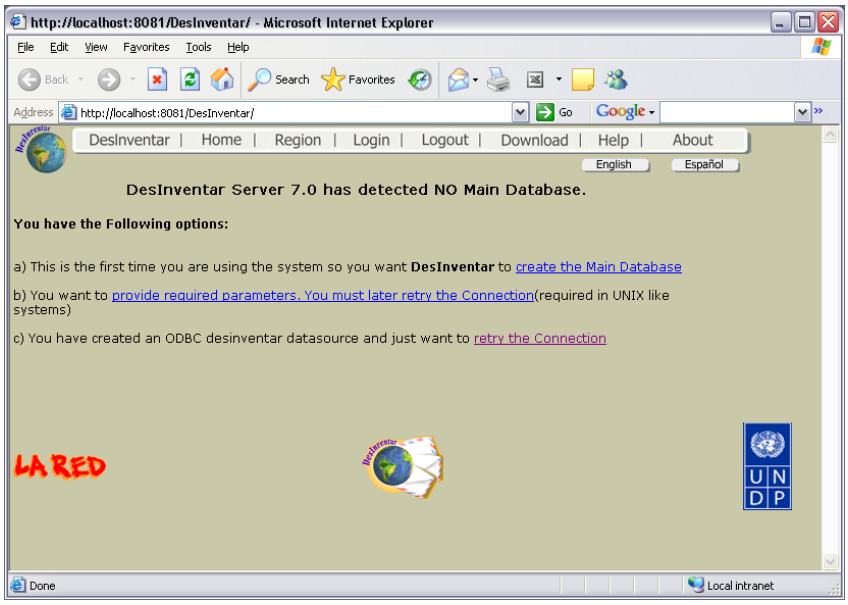
Starting DesInventar

With the software installation you also got a new program group with shorcuts to an Internet explorer with the system and shortcuts to the documentation:



Just click on the Internet Explorer icon marked as “DesInventar”. An Internet Explorer browser window with the following screen should be opened:



If you can’t get this screen, try with the “local” address of DesInventar:

http://localhost:8081/DesInventar

If you get to this Screen then your DesInventar Server 7 is properly installed.

This is called the Main Database creation screen, and it’s displayed the first time you use the system. In order to start DesInventar the Main database must be created.

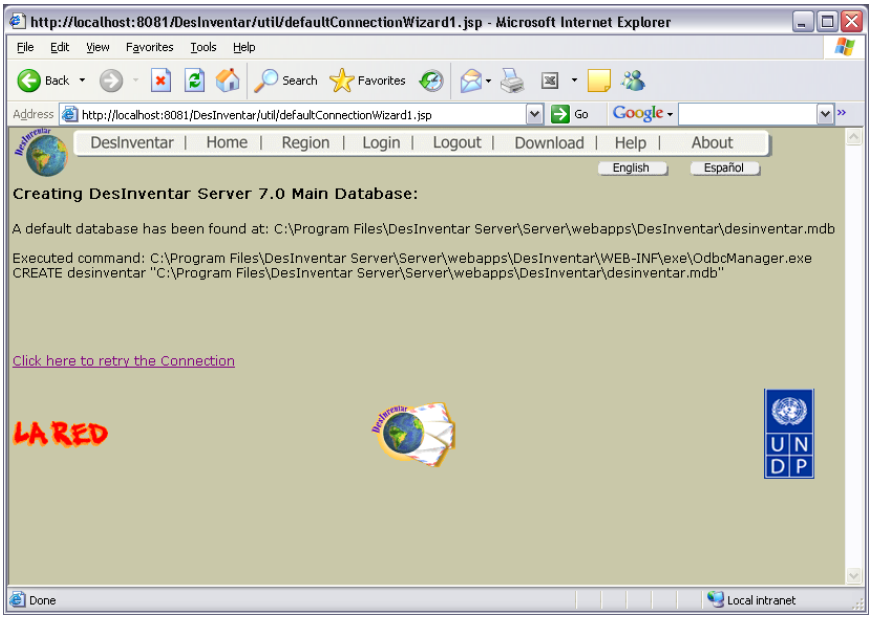
Creation of the Main Database

DesInventar uses a small database (small, but VERY important) in which it will store information about ALL disasters databases available to be used with the software. It is called the “Main” database because DesInventar can’t work without it.

If you are an expert user and your goal is to setup the system with Oracle, SQL Server or PostgreSQL, please read the Manual Installation chapters of this guide and the Administration Chapter of the DesInventar User Manual. In these cases you will be able to set up your main database parameter using the link in option b).

If you are a DesInventar 6 user upgrading the software just select the option a) clicking on “create the Main Database”

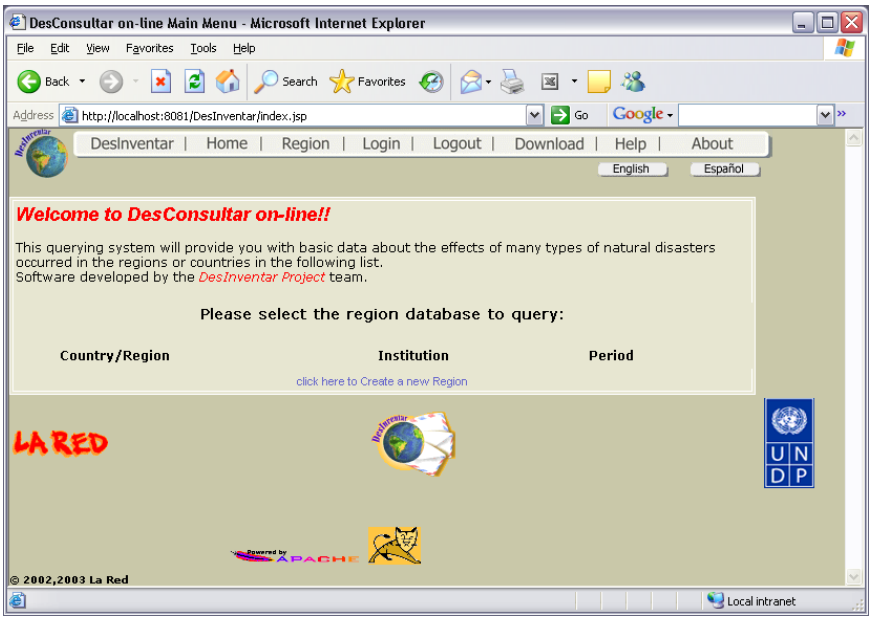
The system will try to locate a default Main database shipped with the product and will show the Create Main Database screen:



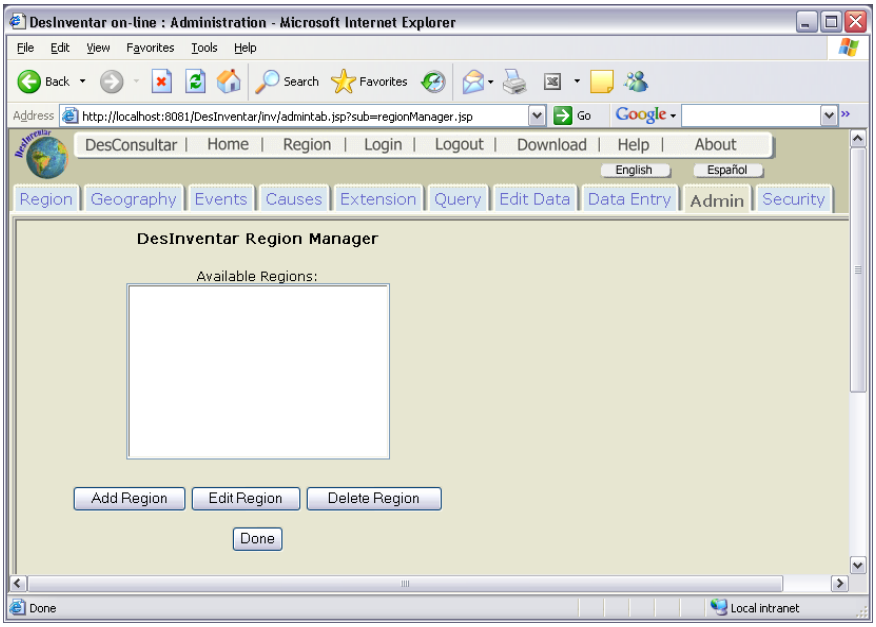
Just click on the link “Click here to retry the Connection”. You should be directed to the Welcome screen of the system.

Adding Country (region) databases

The first screen that DesInventar Server shows is always the Welcome Screen, in which all available country (or regional) database are listed as links.If you don’t have registered databases yet (for example the first time you use the system), this welcome screen will look like:

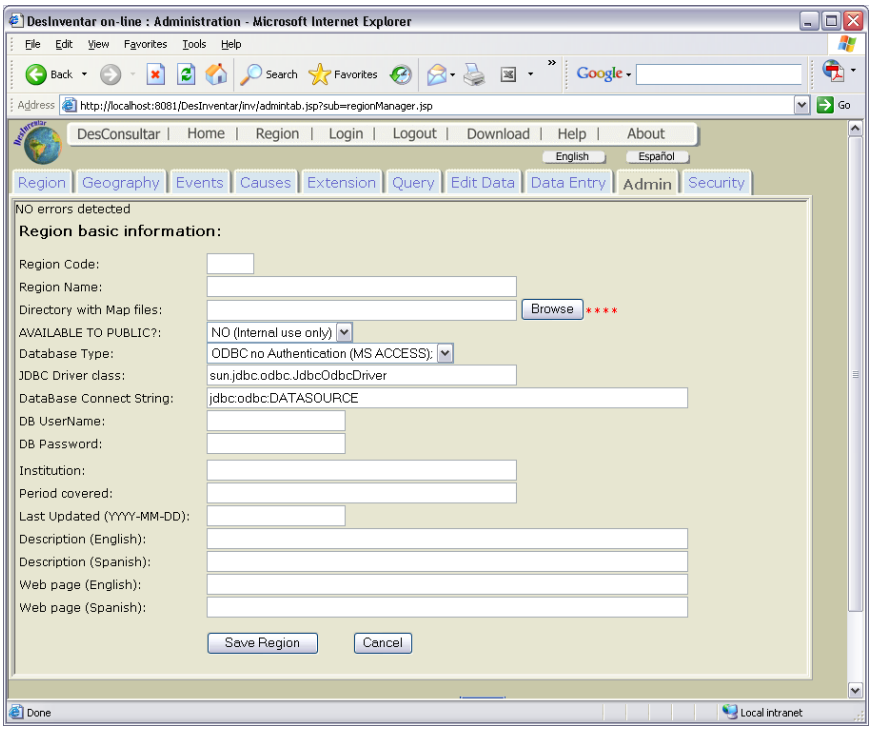


This screen shows that NO databases have been registered in the server so far. In order to register (and "modernize" - upgrade) your current DesInventar 5 or DesInventar 6 databases click on the link "Click here to Create a New Region".



You will be directed to the Region Administration screen, where you will be able to add new Countries (Regions) and later modify or even delete the registrations.

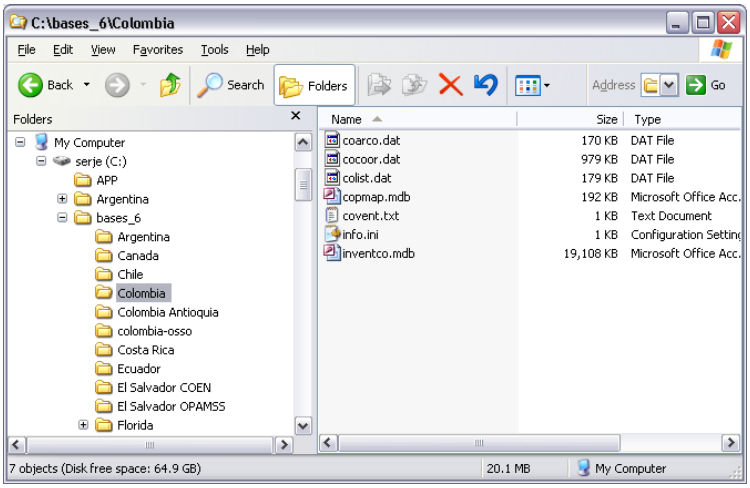
It will have the Available Regions list box empty, so your only option is to click on the "**Add Region"** link. You will get the Region Specification screen:



You will repeat this process for each of your DesInventar 6 databases:

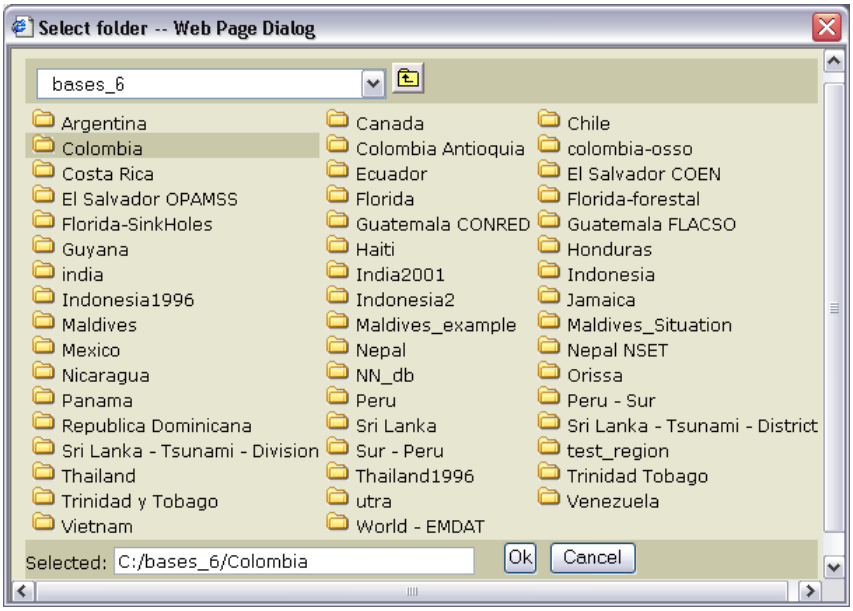
- Type the two letter code corresponding to the region.
- Type the name of the region.
- Select YES in Available to Public?
- You will be able to change later at any time the fields near the bottom of the screen (Institution, Period Covered, up to “Web page (Spanish)”).
- DO NOT CHANGE the following 5 fields starting with “Database type”. You should leave this as suggested by the Server, and same for the next four fields (JDBC Driver, Database connect string, DB User name, DB password).

The two letter code is the first two letters of most of the files in your Region directory. For example, check out the following directory for a database which code is CO:

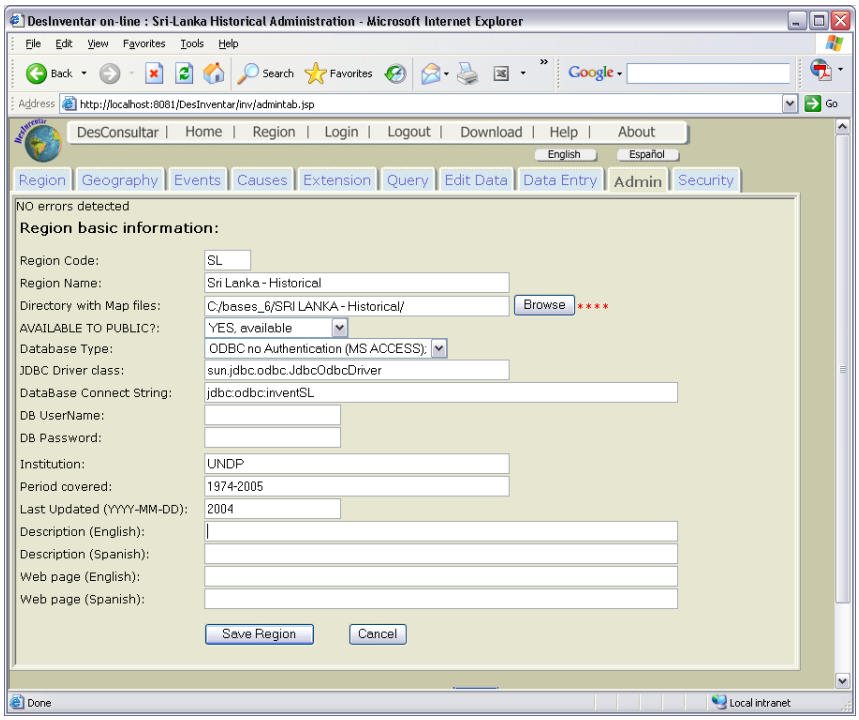


NOTE that you **MUST** fill the THIRD text box, “Directory with map files”.

To fill it out, just click on the “Browse” button. A Folder dialog (similar to the Windows Explorer open file dialog) will let you browse your system directories until you find the folder where the database is located:



Click on the file to select it and click on OK. To drill down on a directory please use double-clicks. Here’s an example of how should a complete Region Specification look like:

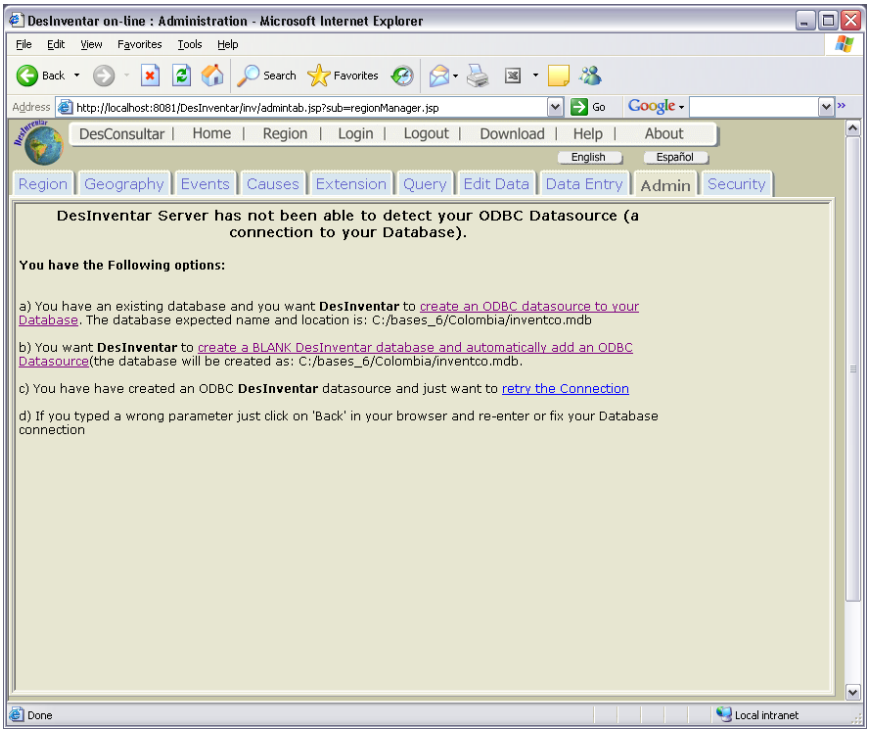


Now Click on “Save Region”.

The first time a region is saved will start the process of opening an “ODBC” connection. ODBC stands for “**O**pen **D**ata**B**ase **C**onnectivity”, and is the mechanism DesInventar Server uses to communicate with MS ACCESS databases. (other types of databases don’t need an ODBC connection, they are accessed using JDBC “Java Database connectivity”).

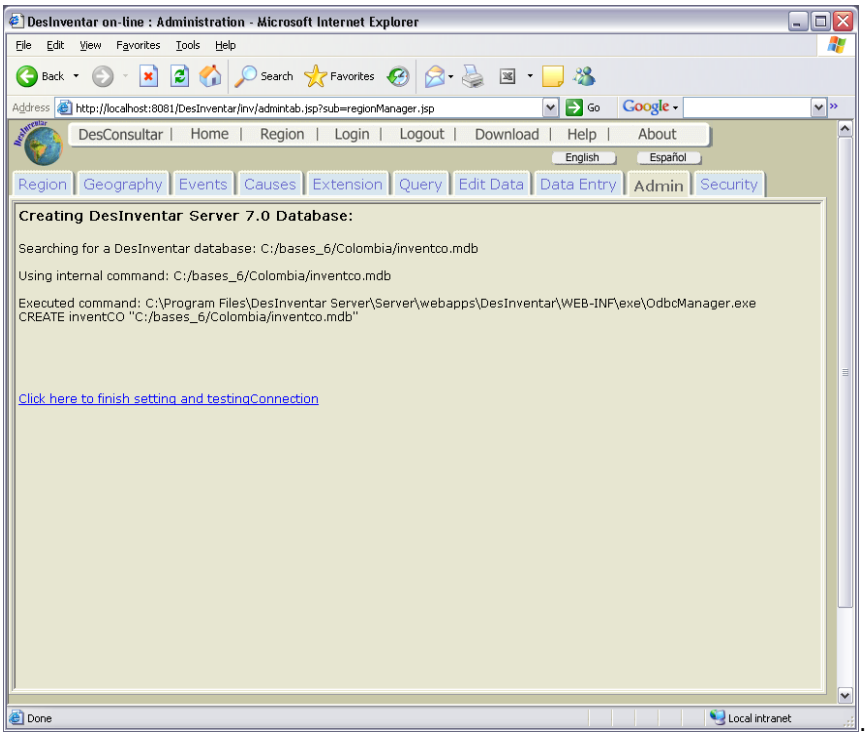
When you create a region the system will verify if an ODBC datasource exists for the database being created (datasources can be created manually using the Windows ODBC administrator. See the User Manual for Details).

As the connection will likely not exist at this point, you will get the following screen:



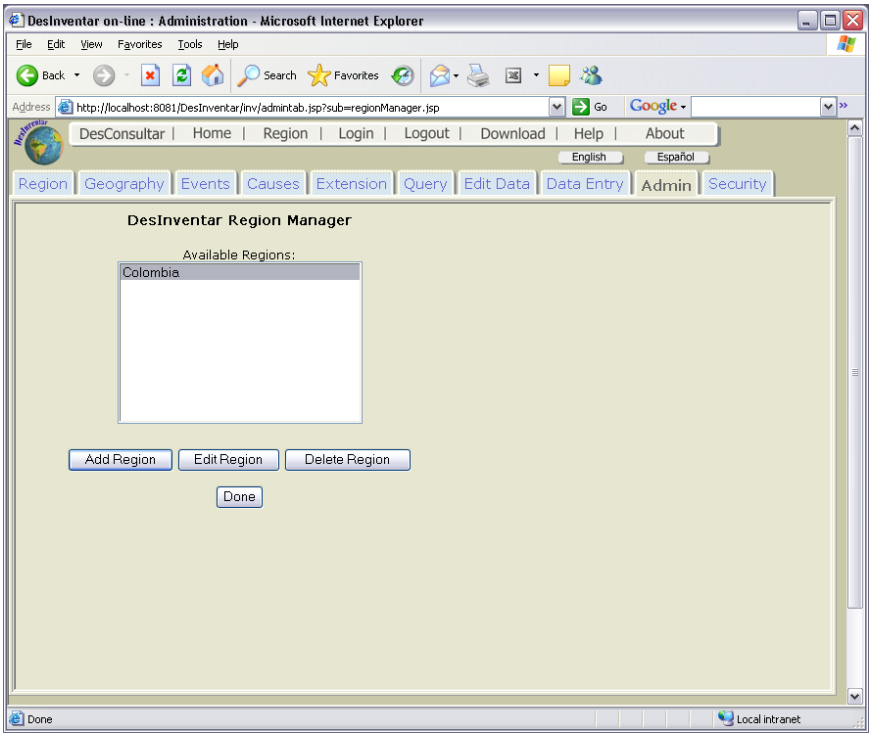
As you are trying to connect to an existing database you should click on the link of Option a) “create an ODBC datasource for your database”. (You can use this very same mechanism to create a new, empty database with Option b. Check the User manual for details on this).

Once you click on the link, the system will acknowledge an ODBC is being created showing the following screen:



To finalize the process click on the link “Click here to finish setting and testing the Connection”.

The database will be registered in the system and will be ready to use. You will be sent back to the region administrator, which will show the recently created region in the list box:



Now you can use your database for analysis or data entry. To start using the query Module click on the “DesConsultar” menu option of the main top toolbar.

You will have to repeat this process for each of your DesInventar 6 databases.

After installing the system and the databases you want to make available you may also want to read the following documents (also installed by the system):

DesInventar Tutorial
DesInventar Preliminary Analysis Methodology
DesConsultar User Manual
DesInventar Methodology
DesInventar User Manual