Empweb Manual
Version 0.8.5

August 2009

provisional version, only for installing and testing

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Introduction

1- What is EmpWeb, who developed it (is it part of ABCD or complementary to ABCD?)
2- How does it work (broad outline)
3- What is the underlying technology
4- How does Empweb implements the circulation functionality and distro description.

5- For what kind of libraries is it recommended

Requirements before installing EmpWeb v0.9

Before installing EmpWeb you must have the following software installed:

- MySql. Versión mysql-essential-5.1.35-win32 or later.
- ABCD versión ABCD_full_20090702 or later.

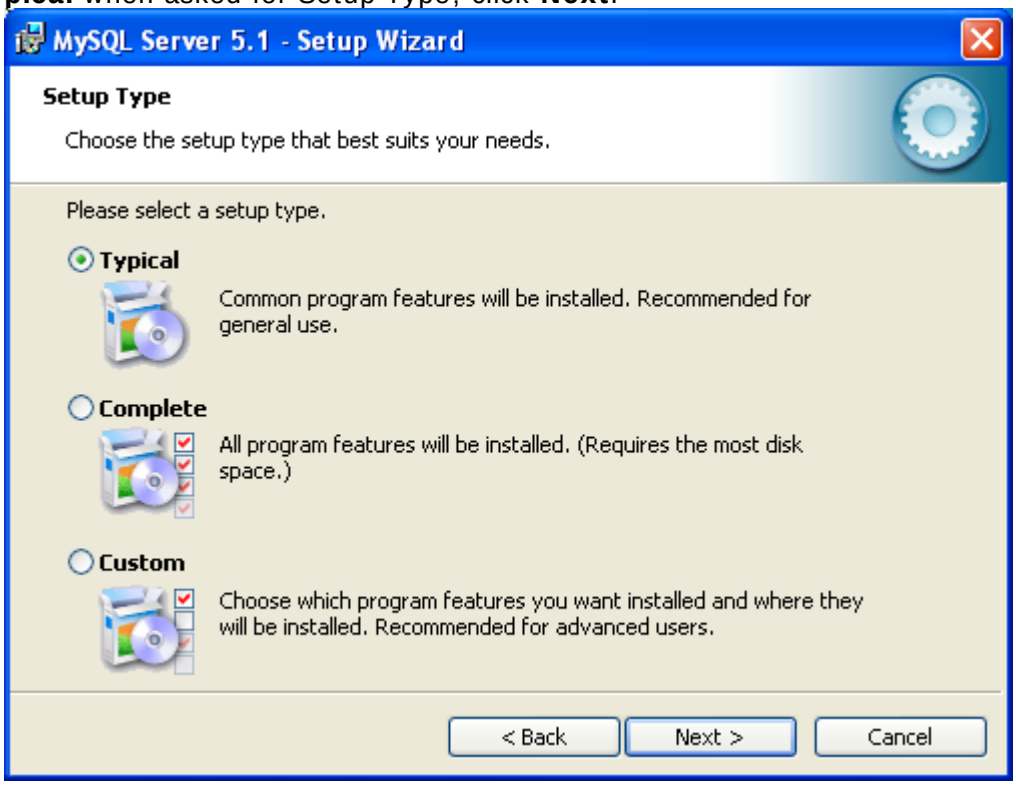
These programs interact with and are necessary for the correct functioning of EmpWeb.

If you already have MySql and ABCD installed, jump to the section Installing EmpWeb.
If you already have MySql and need to install ABCD, jump to the section Installing ABCD.

Warning: Before installing any of these software packages, be sure to make the necessary backups of databases and personal files.

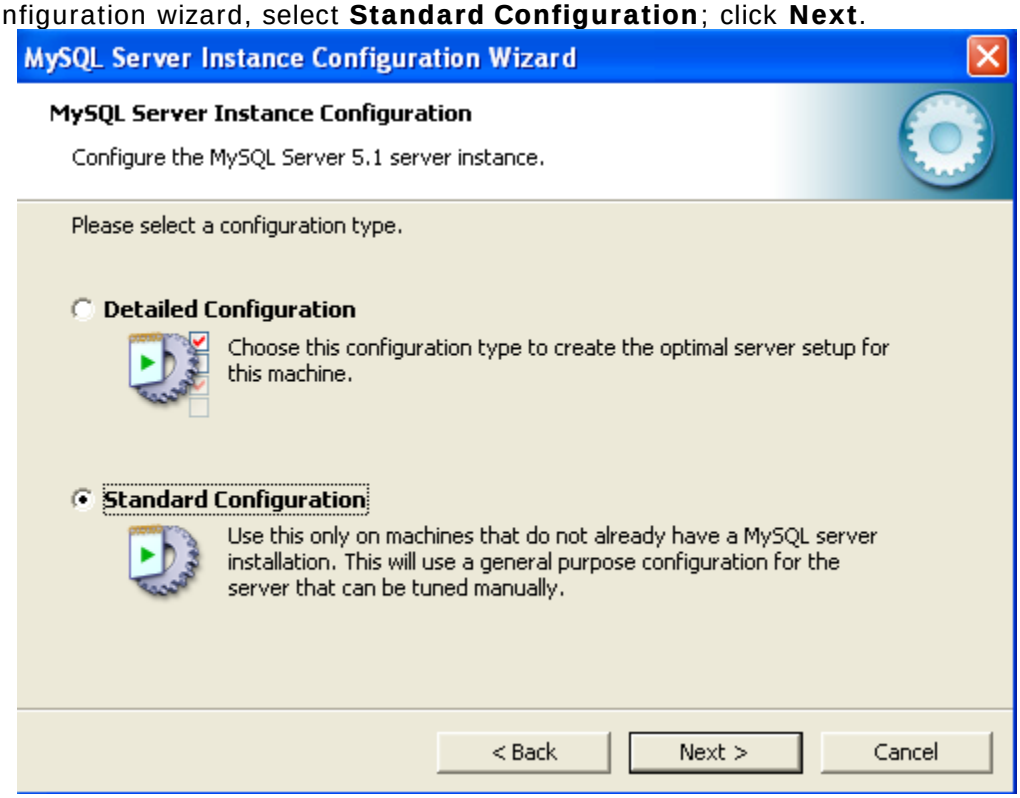
Installing MySql

Download the MySql installer **mysql-essential-5.1.35-win32.msi** from your favourite downloading site and run it to start the step by step installation wizard.
Select **Typical** when asked for Setup Type; click **Next**.

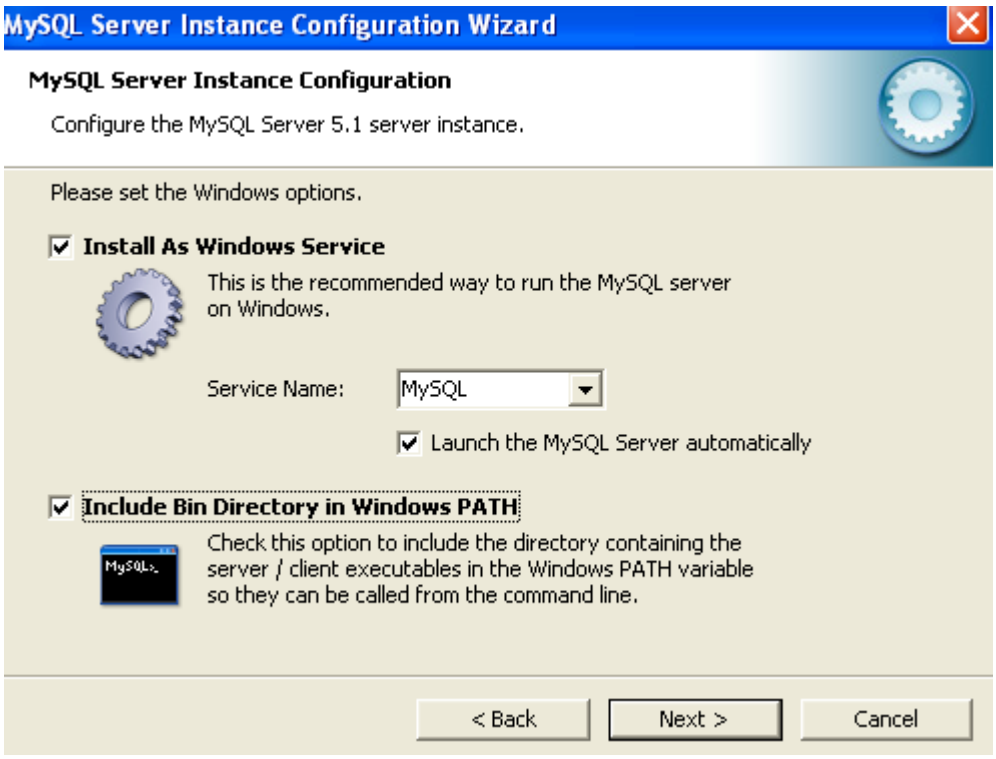


The installation process takes a few minutes, after which you are asked to select configuration details.

In the Configuration wizard, select **Standard Configuration**; click **Next**.



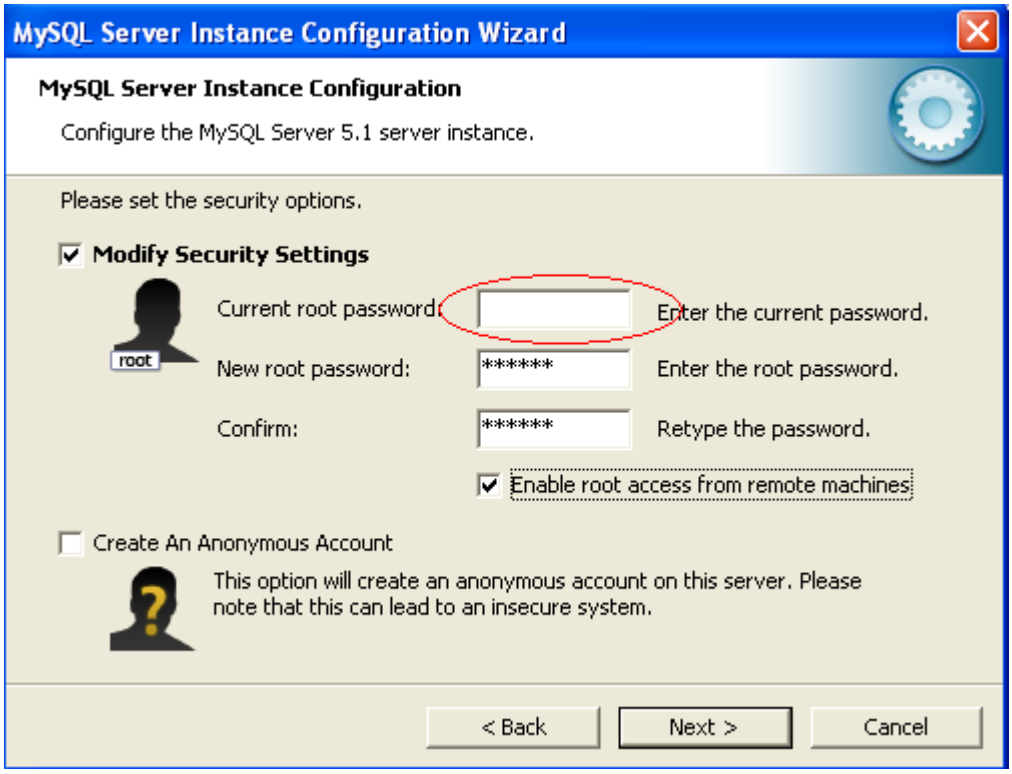
In the next window, select **Install AS Windows Service;** in **Service Name** select **MySql**; select also **Include Bin directory in PATH** (it is not needed by EmpWeb, but is essential for troubleshooting MySql later). Click **Next**.



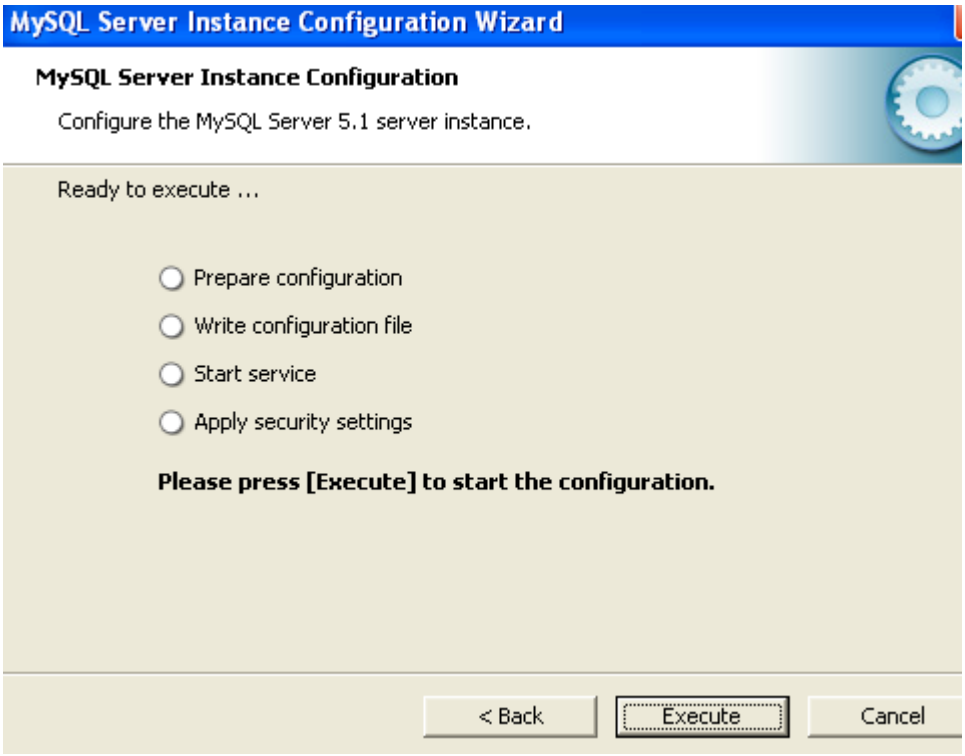
The next step requires a **root password**.
If this is the first time you install MySql on this computer, the **Current root password** field (marked in red on the figure) will not appear.

If you have had a previous MySql version installed, the **Current root password** window will appear and you must enter the corresponding root password.
In the **New root password** field you should enter **empweb,** and repeat the same password in t**he Confirm:** field**.**

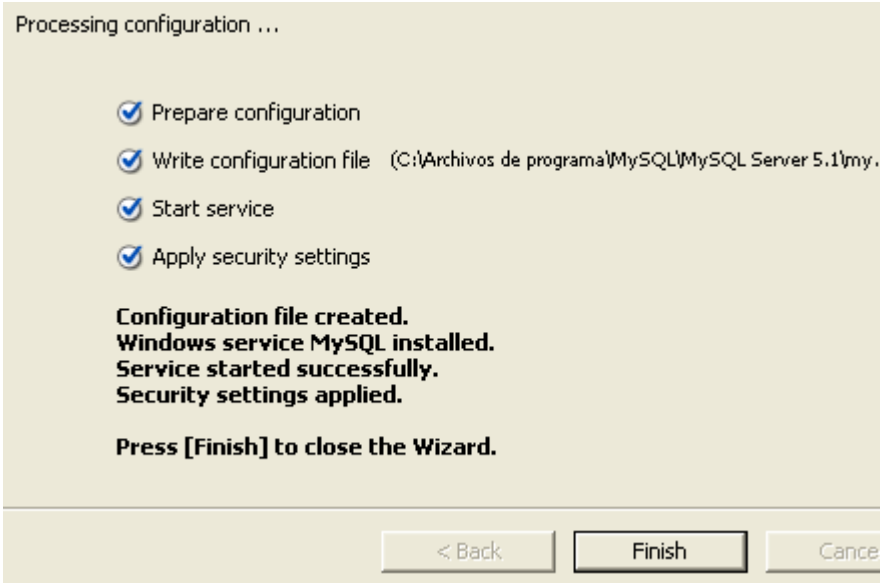
After entering the empweb password and clicking Next, there is nothing more to configure in this setup process. The EmpWeb installation package has **root / empweb** pre-defined as the MySql connection account.



Next you will see a screen like the one below, showing that the configuration will take place. Click **Execute**.



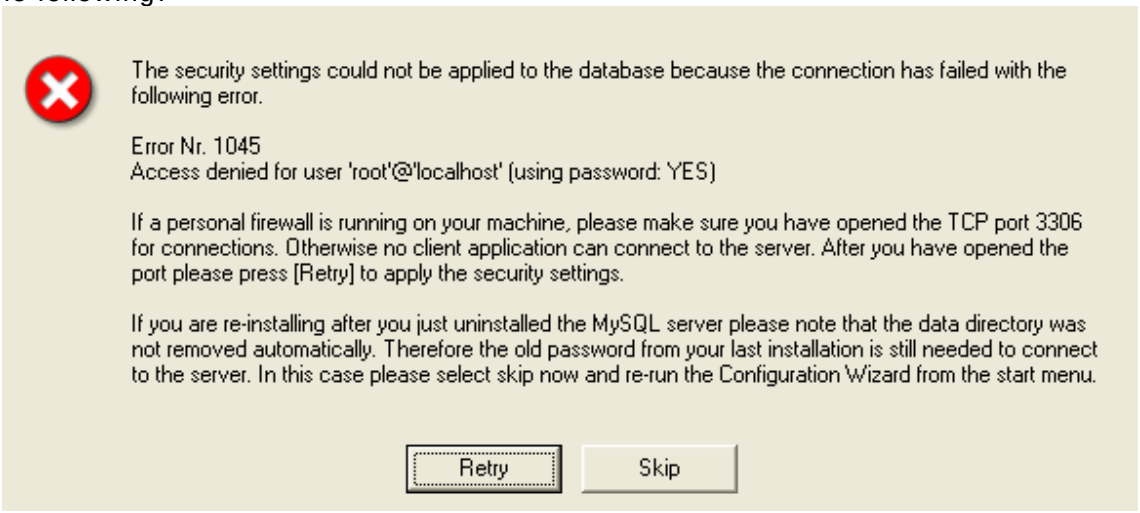
If the configuration runs without any error, a screen like the one below will appear, informing that everything has been successful. Click **Finish** to complete the installation process.



After installing and configuring MySql successfully, you should continue with the installation of ABCD and finally with EmpWeb.

Warning:

If you have had a previous MySql installation on the current computer, the setup process will probably not finish successfully, and you will get error messages. The most common message is the following:



This message says that the Current root password is not the correct one. In this case, click **Skip** and go to the MySql Troubleshooting section for help.

MySql Troubleshooting

Problems during MySql setup

The most common problem has to do with the previous existence of MySql installations on the same computer, because the old root/password remains stored after uninstalling the product.
If you have previously uninstalled MySql from the Control Panel / Add remove programs, most probably the old MySql Service is still active and conflicts with the new installation.

ErrorCode 0 – Error Number 0 - Problem 0.

The installer returns the null error code when attempting to start the MySql service and another version of the service is already running.
You can solve the problem by stopping the MySql Service (from the Start Menu - Control Panel - Administrative Tools – Services. Find MySql in the list of services, doubleclick and select STOP) or by rebooting the computer to stop the old service and start the new one.

ErrorCode 1045 – Error Number 1045 - Problem 1045.

Another frequent problem on machines working as MySql servers, is that the current operator does not know the root/password of the previous installation. The installer will always ask for the old root password if it detects that there has been a previous installation, and there is no way to skip this step.
In this case, we recommend the following procedure for a successful MySql installation:

1- Uninstall any MySql versions from the computer.
2- Delete the C:\Program files\MySql folder
3- Install the new MySql version

You will probably still get the Error 1045 message. Press **Skip**.

4- Stop the MySql Service from the Start Menu - Control Panel - Administrative Tools – Services. Find MySql in the list of services, doubleclick and press STOP.
5- Start a command console: from Start – Run. Write **cmd** and press **Enter.**
6- In the command console window, move to the MySql program folder by writing:
cd C:\Program Files\MySQL\MySQL Server 5.1\bin and pressing **Enter**.
7- Create a textfile called **mysql-init.txt** (from the console with the command: **edit mysql-init.txt**).
8- Copy the following lines into the mysql-init.txt file:
UPDATE mysql.user SET Password=PASSWORD('empweb') WHERE User='root';
FLUSH PRIVILEGES;
9- Save and close the file. Go back to the command console.
10- Run the following command:
mysqld --init-file=mysql-init.txt –-console
11- You will receive a message indicating that MySql has been initiated and the root/password has been changed.
12- Close the command console.

Restart the MySql Service from Start - Control Panel - Administrative Tools – Services.
Search for MySql in the list of services, double click and press Start.

More information about resetting MySql passwords can be found at:
http://dev.mysql.com/doc/refman/5.0/en/resetting-permissions.html

Installing ABCD

ABCD is the main library management suite which EmpWeb is integrated in this distro.

ABCD itself comes with a relatively simple loans management module that uses standard ISIS databases for user registration and loan transactions. However, for heavy duty lending environments such as universities or large public libraries with many concurrent transactions and the need for detailed borrower profiles, EmpWeb is a more robust and developed solution.
After installing ABCD, when you run the EmpWeb installer the setup process will overwrite some of the ABCD configuration files so as to merge functionally with the suite.
For the correct installation of the ABCD suite, please check the ABCD Manual.

Installing Empweb

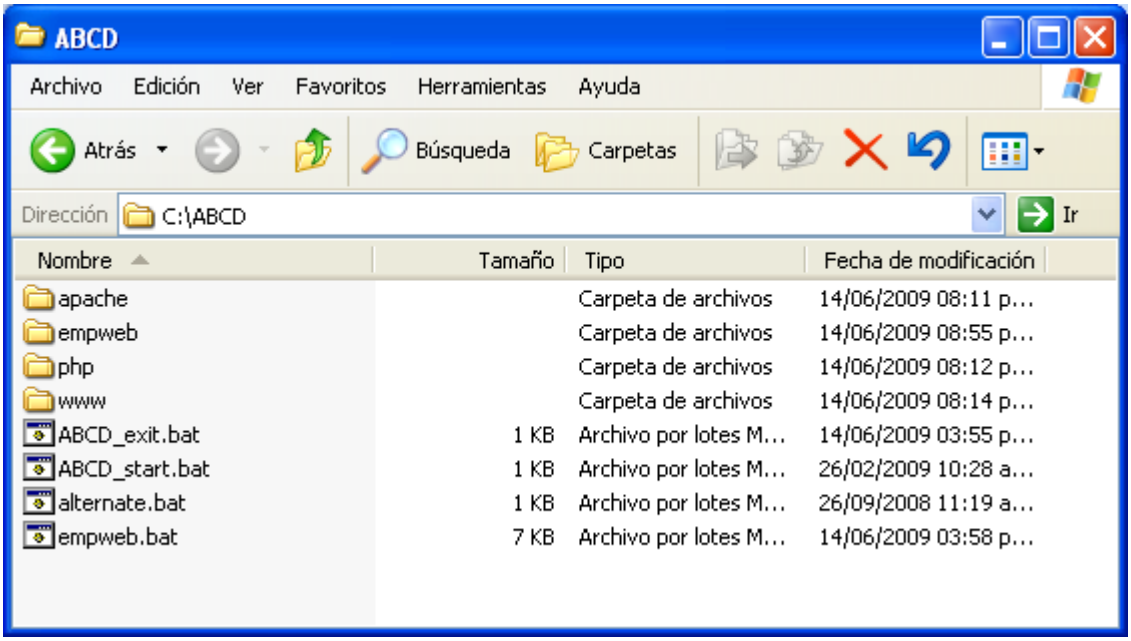
Before proceeding with the installation of EmpWeb, be sure you have MySql and ABCD correctly installed and functionning. These programs will interact and are necessary for EmpWeb to work correctly.

- **MySql. Version mysql-essential-5.1.35-win32** or later, configured according to the instructions given in the Install MySql section of this Manual.
- **ABCD. Version ABCD_full_20090702** or later. Please check the ABCD Manual for installation details.

Warning:
If you have a previous MySql installation on your computer, you will have to create a new transactions database in MySql called **transa**, and assign to it a username and passwod according to the EmpWeb configuration. See the section on Manual configuration of EmpWeb under MySql, below for more details.

In order to install EmpWeb, you should first download and unzip the installation file (EMPWEB_20090813.zip or later) into a temporary folder and then copy the resulting folder tree to the root level at C:. ABCD and EmpWeb share the same folder structure and should be merged.
Click Accept/YES when prompted to overwrite existing files and folders. EmpWeb will overwrite some configuration files in apache, php and ABCD, and will affect MARC and users databases.

The main ABCD folder should have the following structure after the EmpWeb files have been copied correctly.

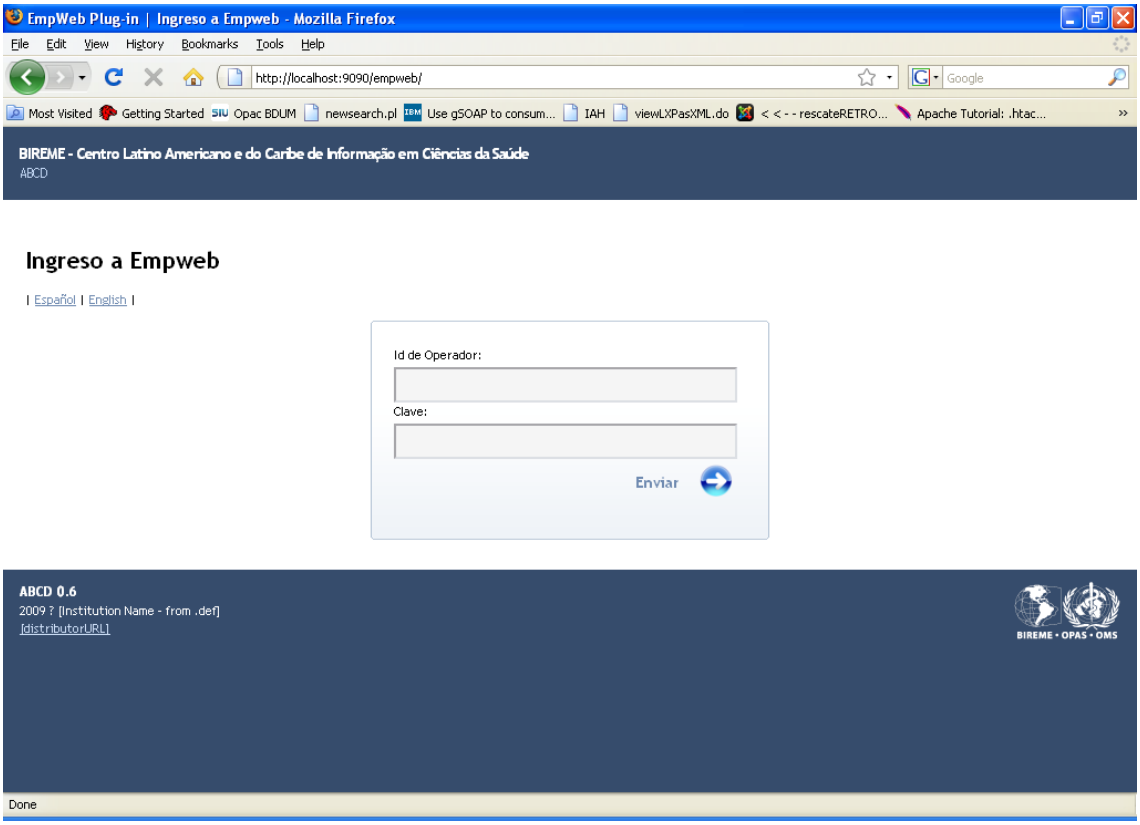


When you activate ABCD_start.bat, two command console windows will open, one for starting Apache and another for the Jetty_Java_server needed by EmpWeb. After a few minutes, the Apache console window closes and the Java_server remains open. Do not close this window while using EmpWeb, or it will not work properly.

In order to close the applications, run ABCD_exit.bat. This batch file stops the services initiated by Apache and closes the Java_server console window.

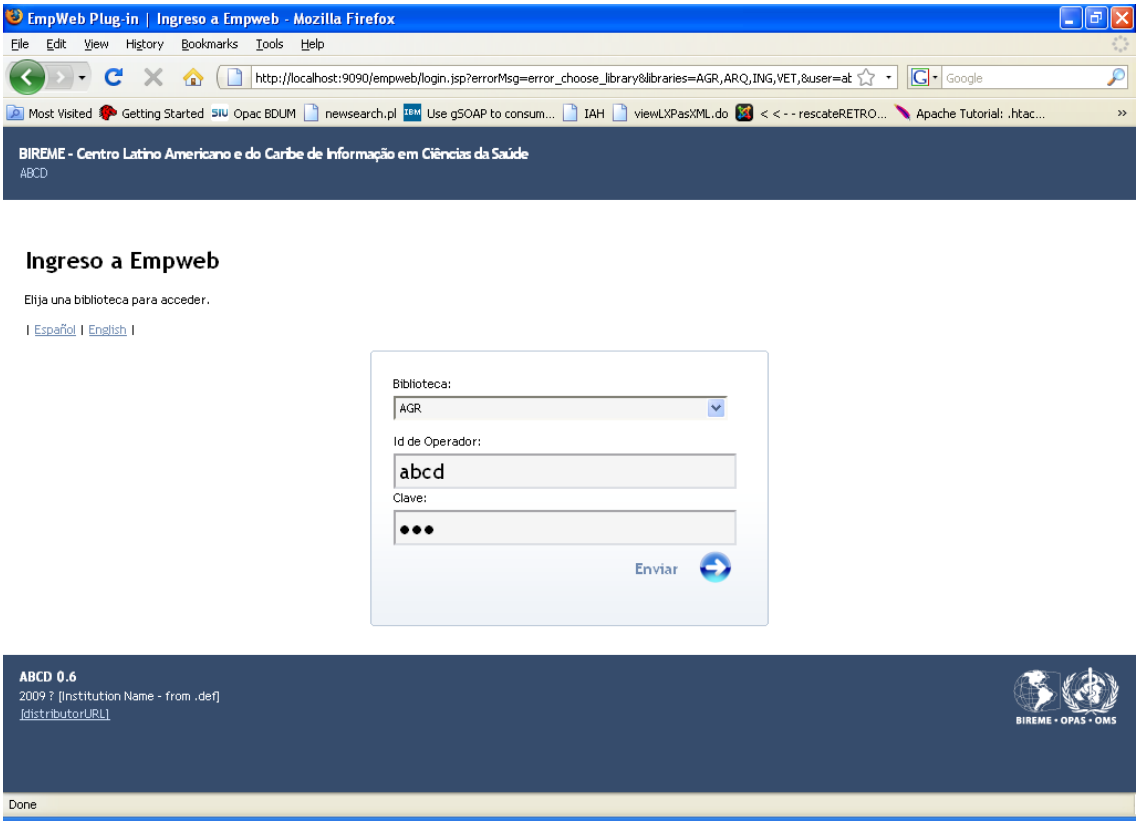
Initiating EmpWeb.

After activating ABCD_start, enter the URL http://localhost:8080/empweb/ in your browser.
After a few seconds the main login page of EmpWeb will open. Remember to add the final slash to the address, or EmpWeb will not work properly.



Enter the same administrator data as for ABCD (abcd/adm) and press **Send / Submit**.

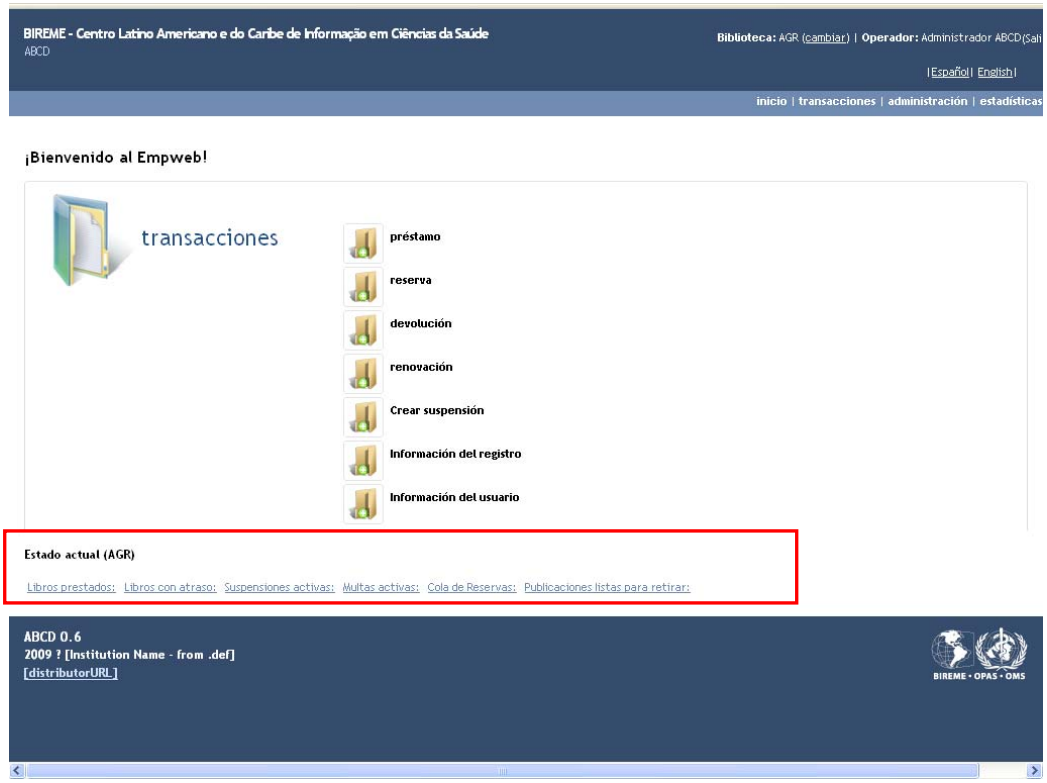
A second login page will be displayed, where you should select a library. This step is necessary for users with access privileges to more than one library.



Select the library you will work in and press Send/Submit. The EmpWeb application will now open.

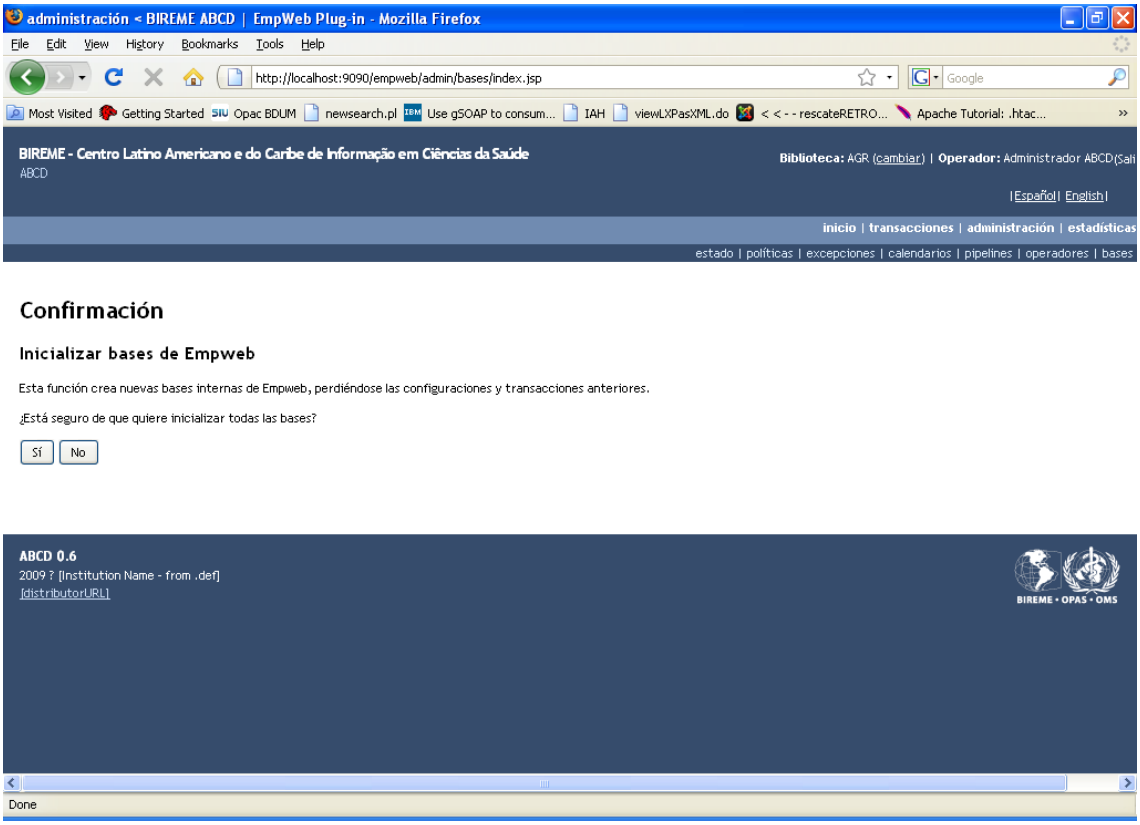
Main configuration of EmpWeb.

After accessing with login, the main Transactions page will open, and you must perform a very important step before being able to use EmpWeb for the first time, namely, initialising the transactions database.



At the bottom of the page just above the footer, you will find a status list with information about the transactions related to the current library. This information shows data from the transactions database and should be empty because no transaction has yet taken place. Every item on the list should show a status value of 0 (null) at its right, but the first time we open the Transactions page only the item names are shown because the transactions database has not been initialised yet.

In order to initialise the transactions database, go to the Administration menu, select the Databases (Bases) sub-menu and a initialisation Confirmation/Warning window will appear. Confirm the operation by clicking **YES**. If the process is successful, you will receive a confirmation message.



Back at the main Transactions page, you will now see that a 0 (null) figure has appeared at the right of each Status item, confirming that the transa database has been activated.

Note: This is proof that the connection between EmpWeb and MySql is correct.

Database initialisation problems.

As mentioned before, if you had a previous MySql installation on your computer, the old root/password and other configuration data remains in the system even if you delete the Program Files\MySql folder completely, and may affect the functioning of EmpWeb, including the initialisation of the transa database.

The solution to this problem is to open a console, invoke mysql and manually drop the database:

1- Open a cmd window.
2- Execute the command **mysql –uroot –p** (press Enter)
3- *** insert the password *** (type the password) (press Enter) (password= empweb)
4- mysql> DROP DATABASE transa; (press Enter)
5- mysql> quit; (press Enter)

After doing this, you will be able to initialise the mysql database from EmpWeb.

Manual configuration of EmpWeb under MySql.

It is not recommended to operate in production mode with the root/empweb user setting. You should change to another username/password combination in production environment.

In order to configure the root user account manually, you have to edit the file /ABCD/empweb/engine/WEB-INF/conf/engineconf.xml. Use a text editor like Notepad for this. Locate line 150 and from there on you will find the following content:

```
<base name="TRANSA" type="transa">
<uri>jdbc:mysql://localhost/transa</uri>
<user>root</user>
<password>empweb</password>
<schema>ew15db-schema.sql</schema>    <!-- It's a resource inside ew15db.jar -->
<backupDir>C:/ABCD/empweb/db</backupDir>
<poolSettings>
  <driverClassName>com.mysql.jdbc.Driver</driverClassName>
  <minPoolSize>3</minPoolSize>
  <maxPoolSize>20</maxPoolSize>
  <initialPoolSize>3</initialPoolSize>
  <acquireIncrement>2</acquireIncrement>
  <idleConnectionTestPeriod>30</idleConnectionTestPeriod>
  <testConnectionOnCheckin>false</testConnectionOnCheckin>
  <automaticTestTable>ew_test_table</automaticTestTable>
  <maxIdleTime>30</maxIdleTime>
</poolSettings>
<collation></collation>
</base>
```

Change <user> and <password> and save the file. For the changes to have effect, you must shut down ABCD with ABCD_exit.bat, and then restart using ABCD_start.bat

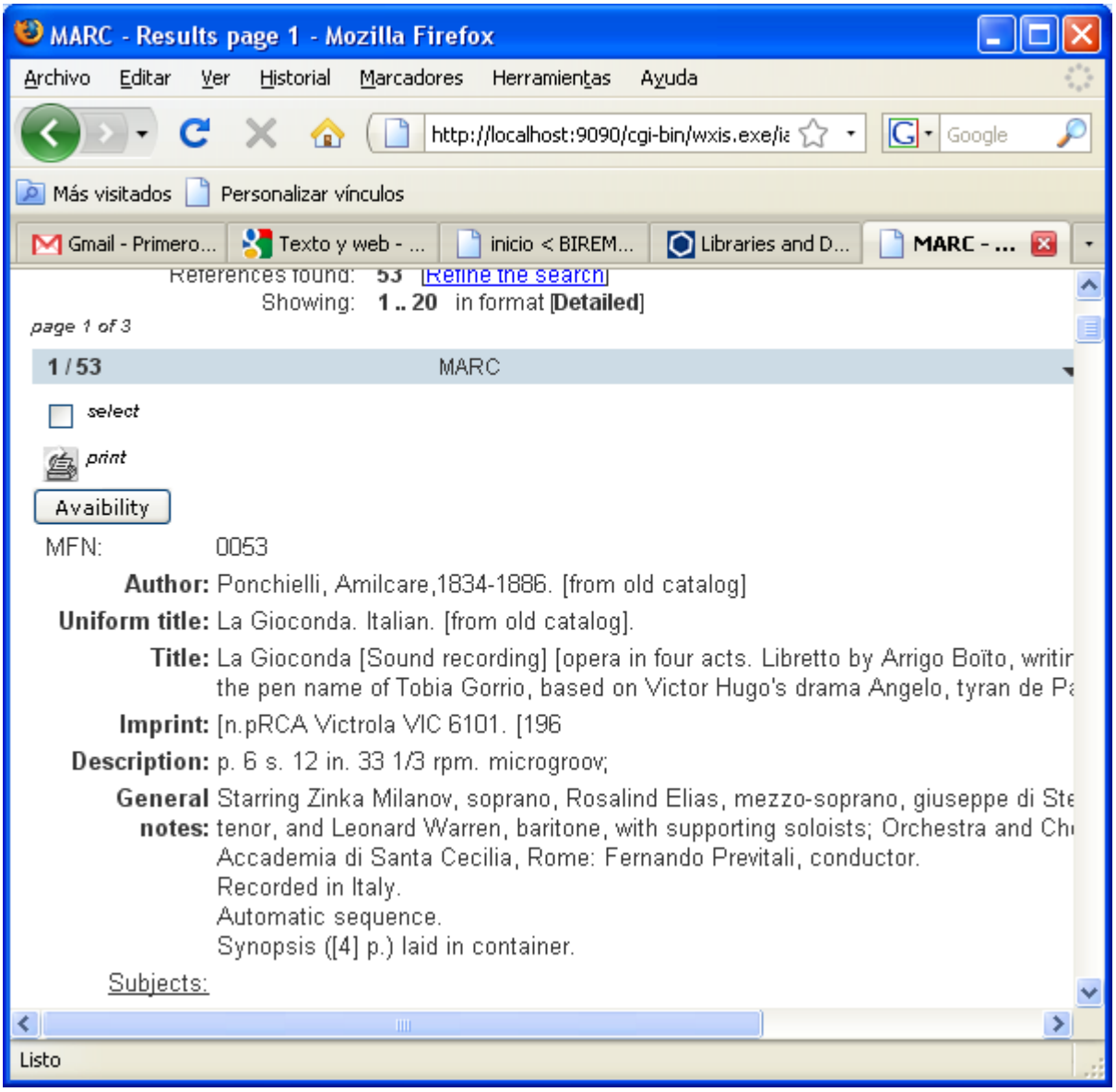
Transactions

The EmpWeb installation package is pre-defined to do lending transactions with the Marc bibliographic database.

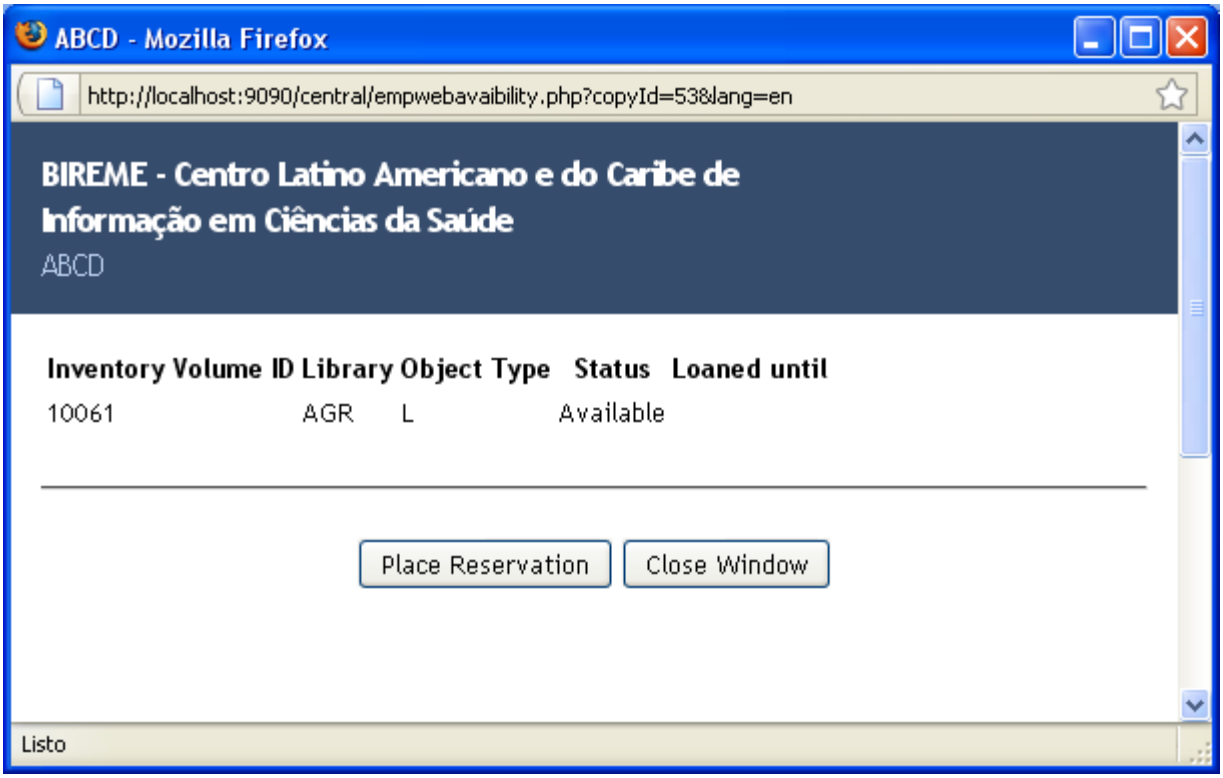
When you go to MySite (http://localhost:9090/site) and access the Marc database directly, if you do a successful search an Availability button will appear at the left of each item registered as a loan object. The association is done with the Control Number field.

Click the Availability button and a window opens displaying the available copies of the selected record.

In the current EmpWeb installation loanobjects items have been defined for a number of records. You can access these doing a generic search ($) and the following screen will appear:

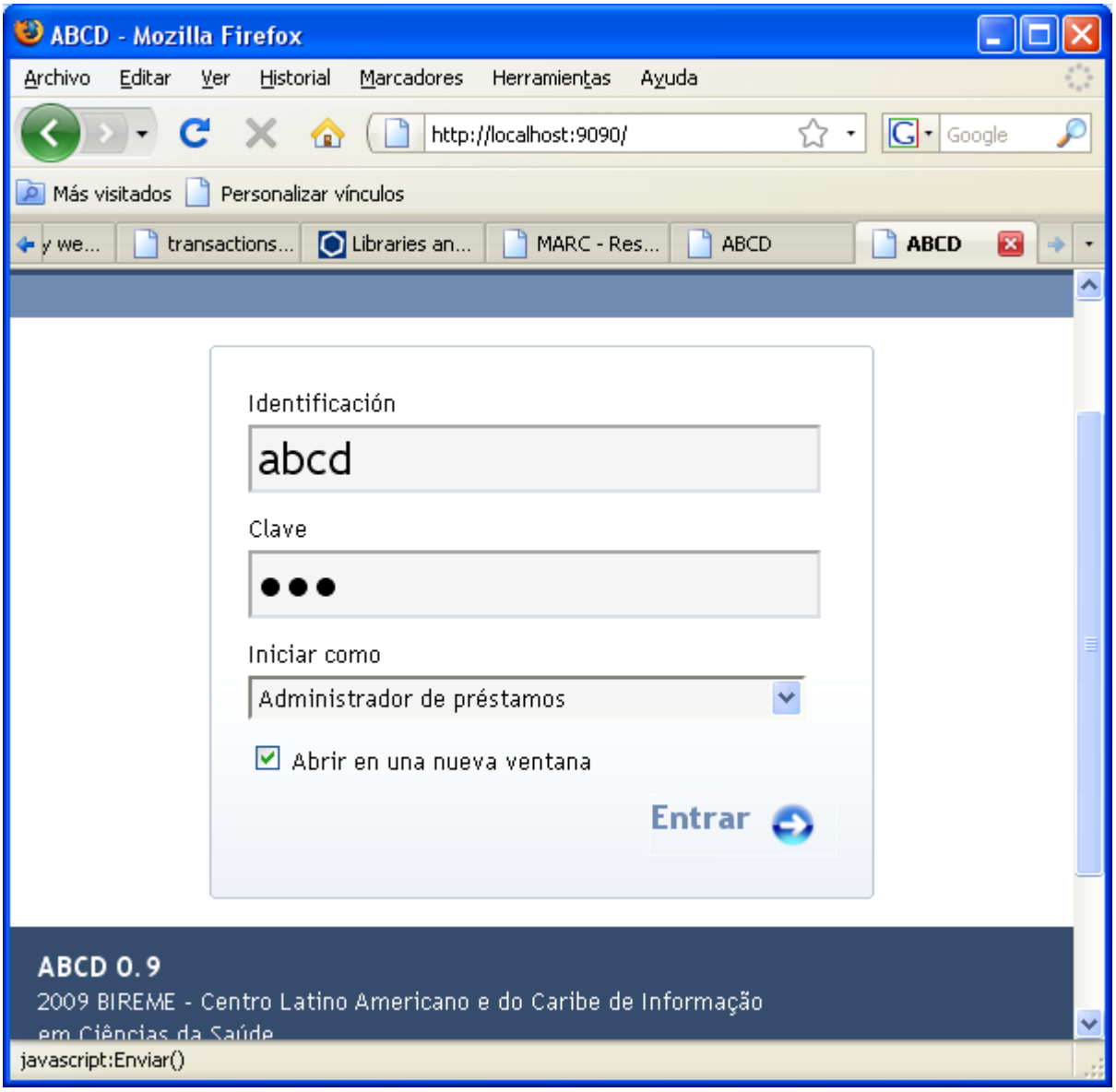


Click the Availability button and the existing copies are shown.



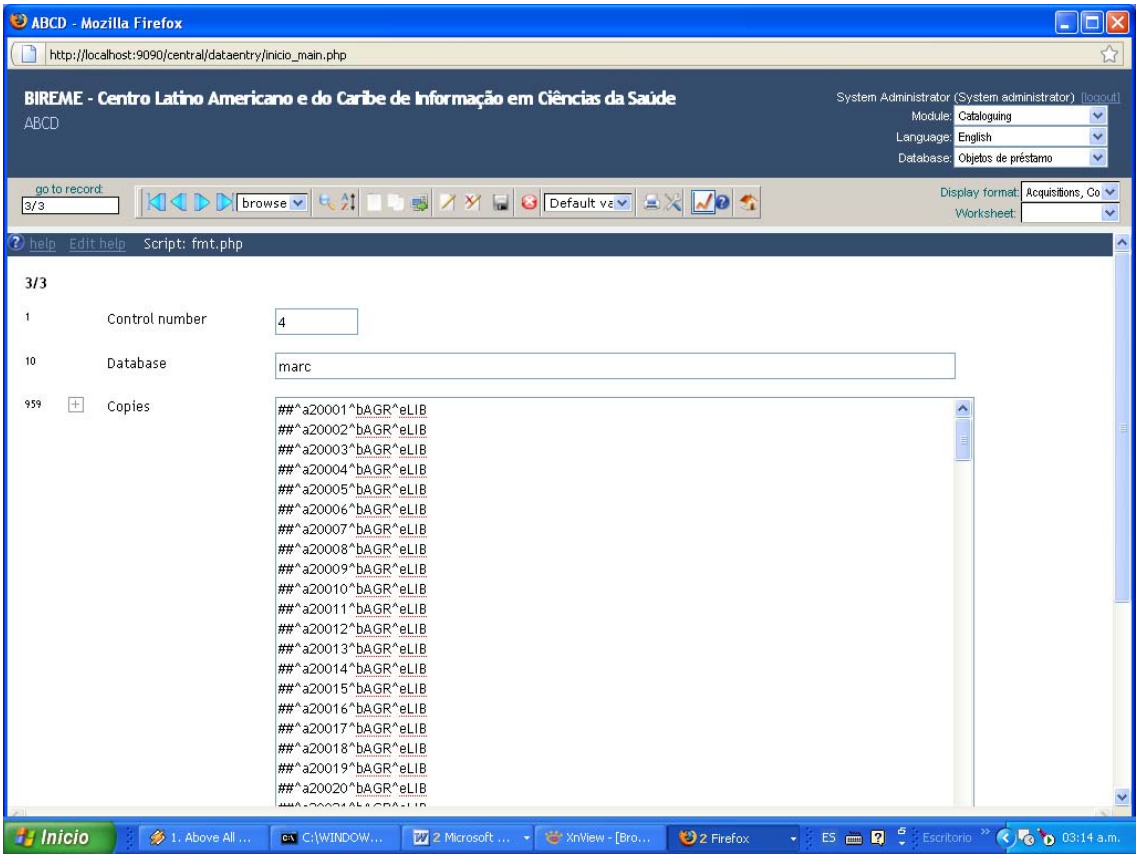
As you can see, it is possible to make a reservation of this item clicking the Place Reservation button. This will open the MySite page to execute the reservation. The program will ask for login/password to access the Users database.

To have access to the Users database you must go to the main ABCD page (localhost:9090/) and login as Loans Administrator. In the database you can Edit/Create/Modify users applying the necessary permissions to access MySite.



The **Loanobjects** are automatically loaded into the database. The loanobjects database was included in this distro to be shown as one of the editable databases in ABCD for testing purposes only. Remember that loanobjects is an internal database administered by ABCD and is not supposed to be directly edited by the final user.

By editing the records you can load data in the different fields. Field 001 is the ID-unique identifier for the record; field 10 is the database name (Marc in our case) and the repeatable field 959 contains the unique identifier for each copy.


ABCD - Mozilla Firefox
http://localhost:9090/central/dataentry/inicio_main.php
BIREME - Centro Latino Americano e do Caribe de Informação em Ciências da Saúde
ABCD
System Administrator (System administrator) [logout]
Module: Cataloguing
Language: English
Database: Objetos de préstamo
go to record: 3/3
browse
Default va
Display format: Acquisitions, Co
Worksheet:
help Edit help Script: fmt.php
3/3
1 Control number 4
10 Database marc
959 Copies
##^a20001^bAGR^eLIB
##^a20002^bAGR^eLIB
##^a20003^bAGR^eLIB
##^a20004^bAGR^eLIB
##^a20005^bAGR^eLIB
##^a20006^bAGR^eLIB
##^a20007^bAGR^eLIB
##^a20008^bAGR^eLIB
##^a20009^bAGR^eLIB
##^a20010^bAGR^eLIB
##^a20011^bAGR^eLIB
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##^a20017^bAGR^eLIB
##^a20018^bAGR^eLIB
##^a20019^bAGR^eLIB
##^a20020^bAGR^eLIB
Inicio
1. Above All ...
C:\WINDOW...
2 Microsoft ...
XnView - [Bro...
2 Firefox
ES
Escritorio
03:14 a.m.

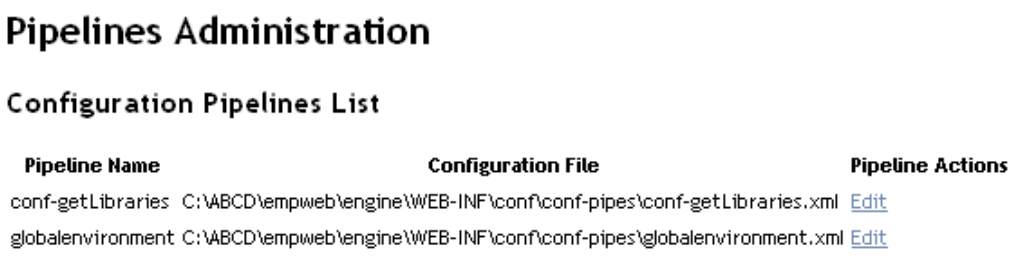
Instructions for the configuration of libraries (v0.85)

The steps to configure libraries in EmpWeb are the following:

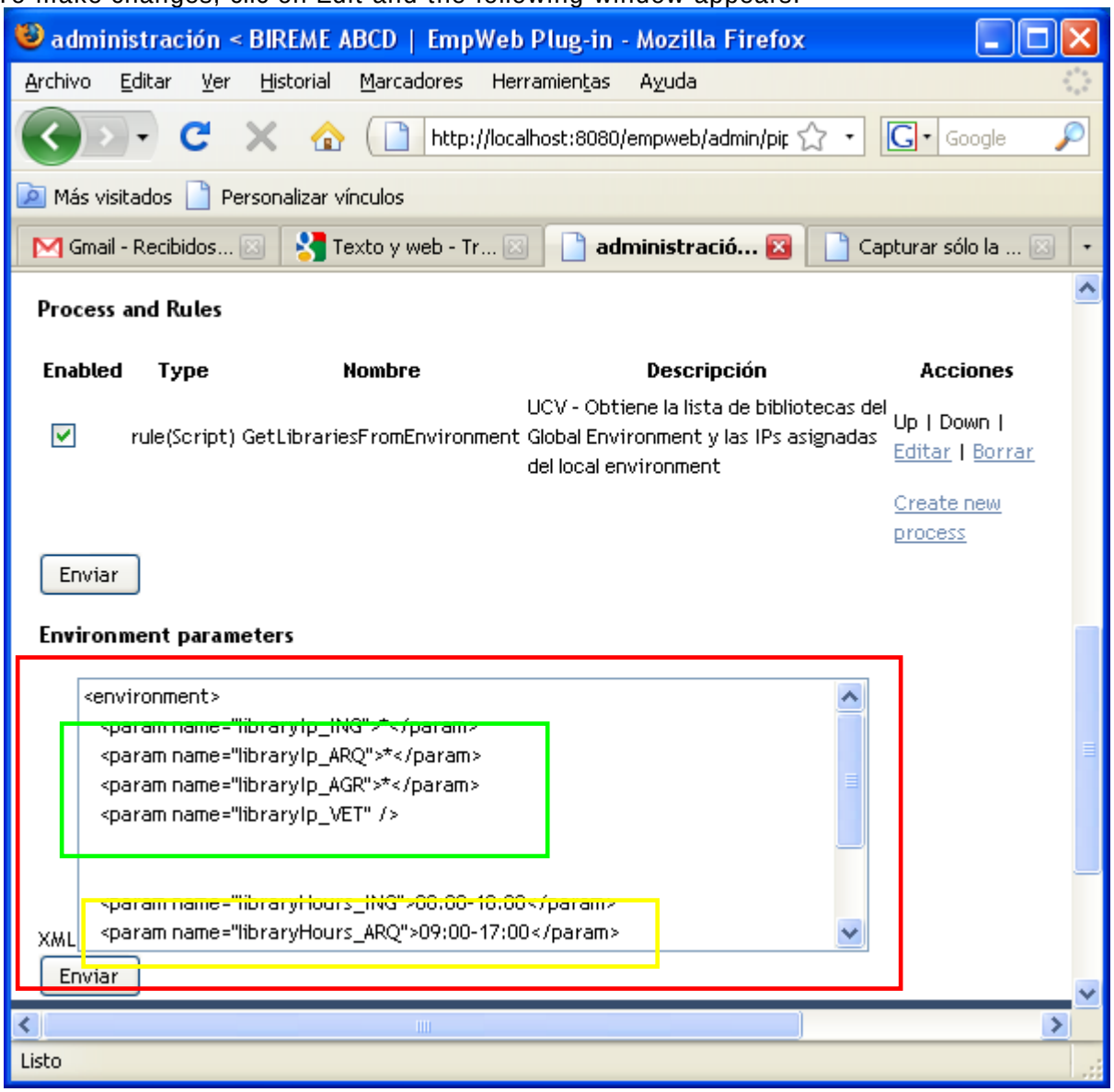
1. Change the library definition in the **conf-getLibraries pipeline**.
2. Change global parameters of the library in the **globalenvironment pipeline**.
3. Assign user rights.

1. Change the library definition in conf-getLibraries pipeline

After starting the EmpWeb application, select Administration -> Pipelines and a screen appears with the title Transaction Pipelines Administration (similar to the figure below) where you will see the first two options.



To make changes, clic on Edit and the following window appears.



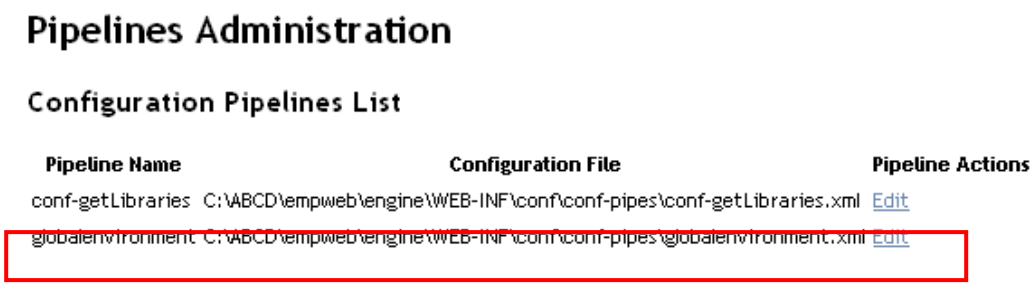
The XML parameters to be changed are indicated in the big red rectangle.
In this example we can see that the libraries ING, ARQ, AGR y VET are configured.

In the first list of parameters (green rectangle) the names of the libraries are defined. Here you can enter the IP addresses (like 192.168.0.123) or IP masks of the libraries.

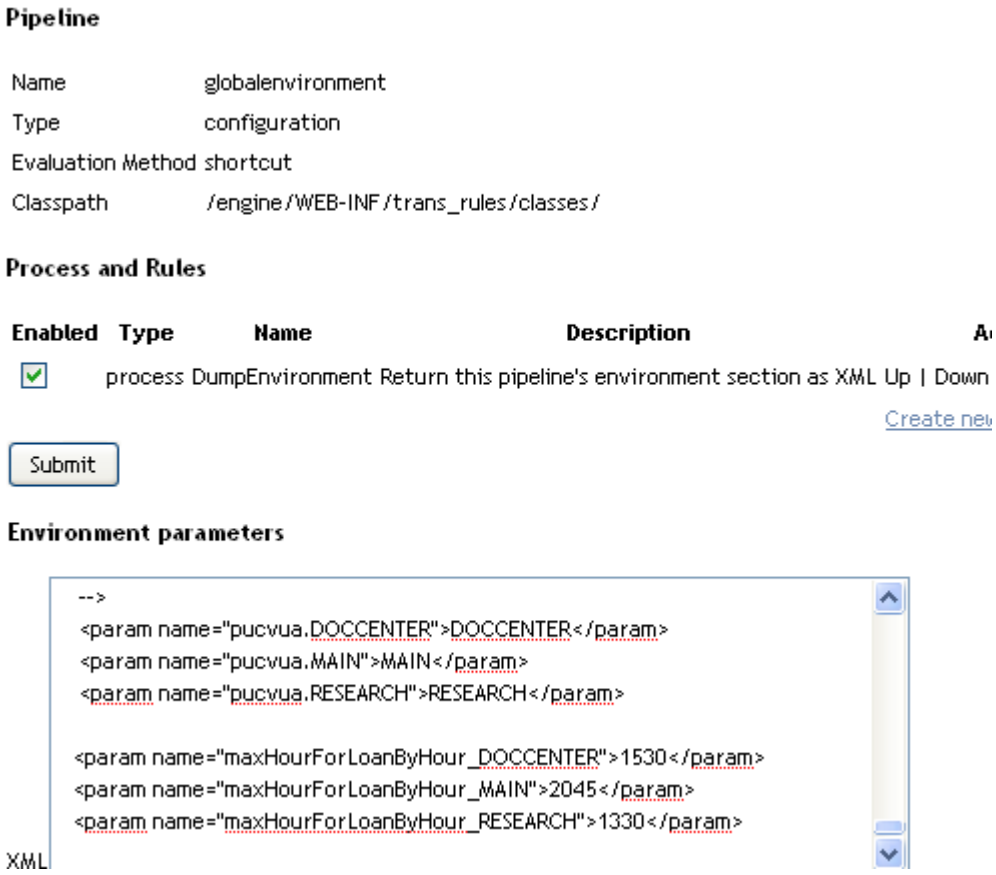
The second group of parameters (yellow rectangle) establishes the trading hours of each library defined in the previous parameter.

2. Changing global parameters of the library in the globalenvironment pipeline.

By editing the parameters defined in the globalenvironment pipeline (red rectangle in the next image) we can change several parameters affecting EmpWeb globally.



Click on Edit and the following screen appears with two groups of parameters in XML language.



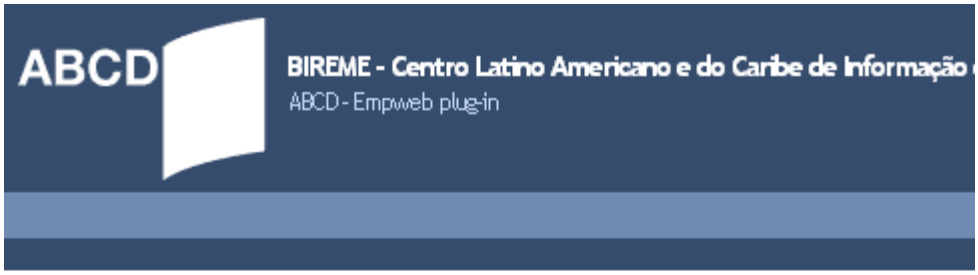
The first group defines the name of the library as it will appear on the Web interface. The second group defines the lending hours for each library in the system.

3.Assign user rights to the system.

After defining the libraries which compose the system in EmpWeb, you must establish the necessary permits for the users to access EmpWeb. The permits will have effect in the next session.

Go to the EmpWeb Administration menu - > Operators. Select the “super user” with access to all applications – in this case the user **abcd** who has full administrator privileges.

From this access you can create new users and assign the corresponding rights. It is also possible to Edit, Modify or delete existing users, as shown in the next image.



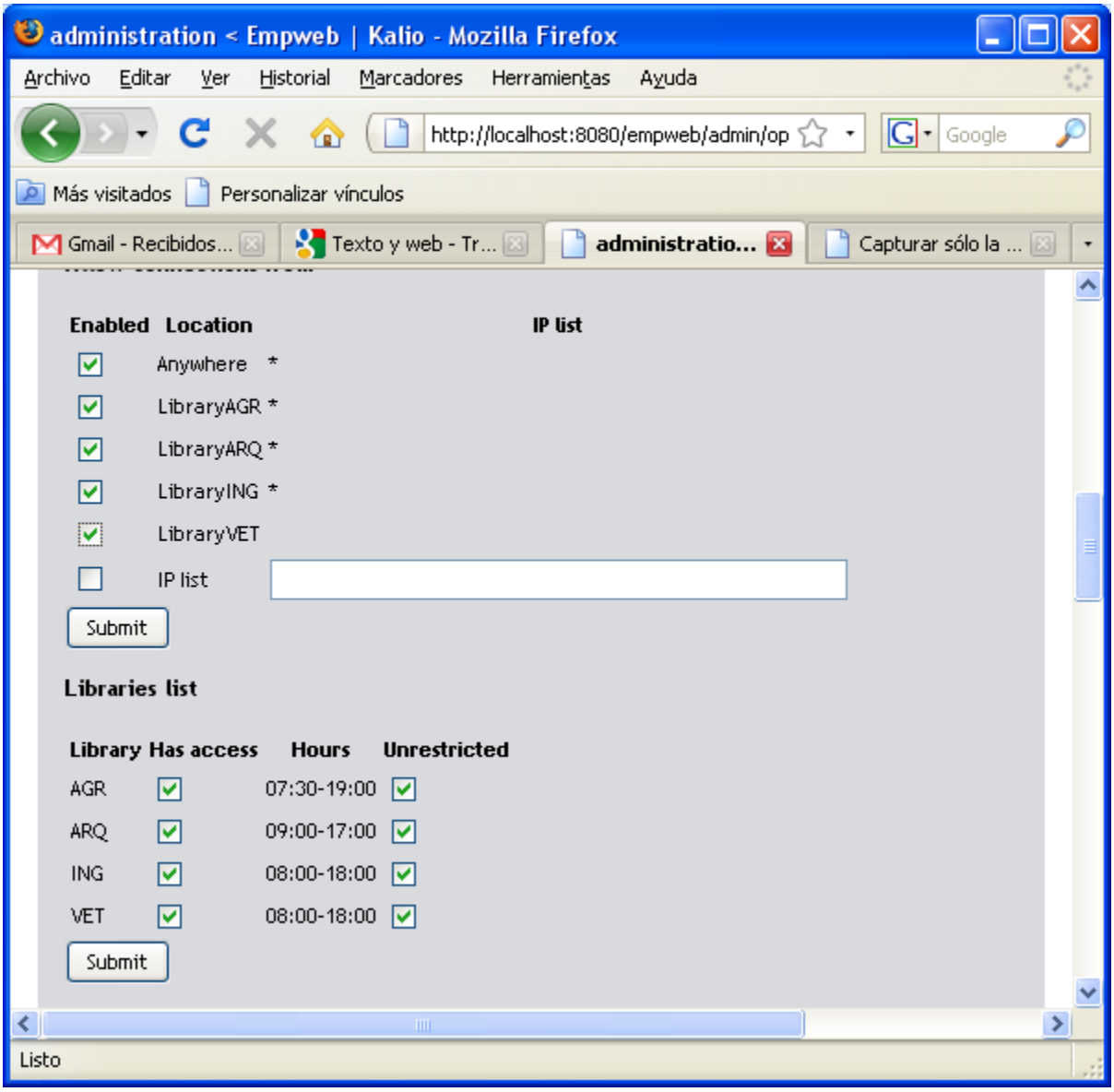
Operators Administration

Operators List

Operator Id	Operator Name	E-mail	status	Actions
admin	Empweb Administrator	root@localhost		Edit | Copy |
ВПА ДИМИР	Vladimir the Russian		Disabled	Edit | Copy | Delete
[illegible]	Omar Sharif		Disabled	Edit | Copy | Delete
abcd	Administrador ABCD	abcd@abcd.org		Edit | Copy | Delete
ernesto	Spinak, Ernesto	spinaker@adinet.com.uy		Edit | Copy | Delete
egbert	De Smet, Egbert	egbert@ac.be		Edit | Copy | Delete

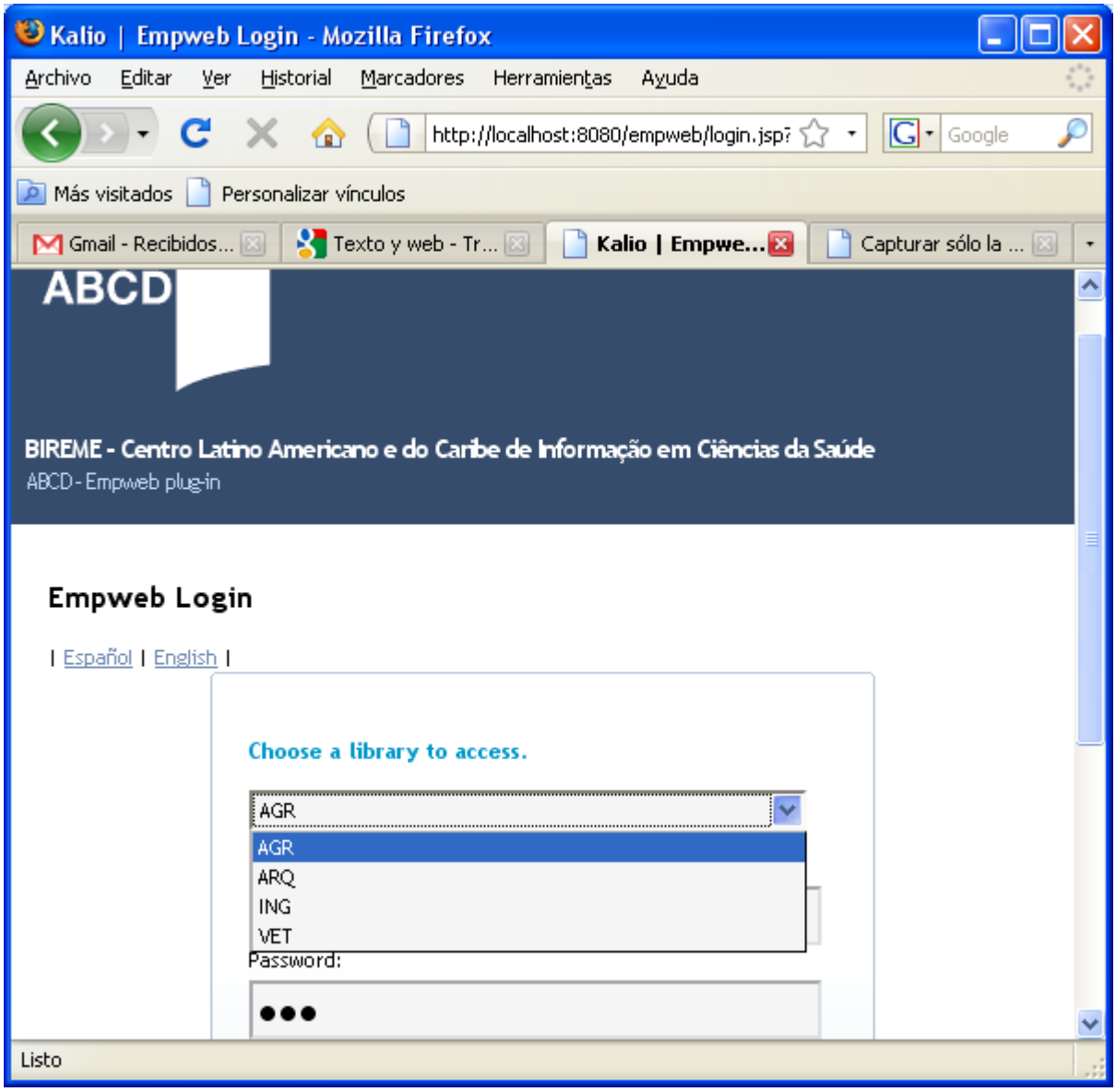
Create New Operator

By editing the super user **abcd**, you gain access to the library definitions and can assign the new access permits to each.

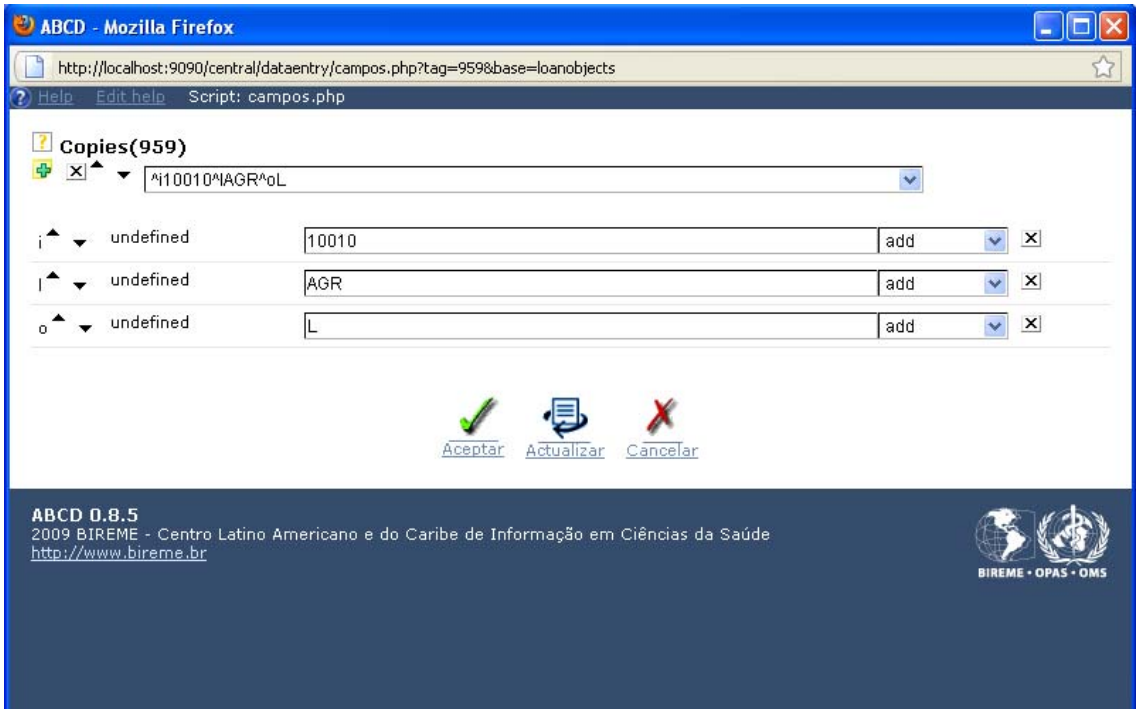


Warning: Remember to save the changes clicking on the Submit button for each group, or the new settings will not have effect.

Once you have assigned the new access permissions to the libraries, you must logout from the system (without closing EmpWeb).
Login again, and now you will see the list of available libraries assigned to the current user/password.



Important: Remember that in order to make loan transactions (loans/returns/reservations) in the new libraries, you must also define the **loanobjects** properties for each library.



In the example above, you will see the loanobjects data as defined in the subfields ^i, ^l and ^d of field Copies(959) in the Marc database, for the object 10010.

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