# Redatam Webserver



# Configuration and Implementation of a web application

# Table of Contents

# I.       Introduction

The purpose of this document is to serve as a quick guide for the Redatam Webserver installation, using either one of the Web Servers described here, the Apache or the Internet Information Server (IIS). The choice between them depends on the user's environment and/or his/her preferences.

This guide was designed in such a way that it is not necessary to have any previous knowledge about any of the Web Servers (Apache or IIS). The users being familiar with the Server to be used can then adjust the installation according to their needs.

Section II and Section III will describe how to download and install the Redatam Webserver application. The other sections are dedicated to each of the Web Servers (Apache or IIS), and finally the document shows how to check the application and modify it to add new Redatam databases.

# II.      Download Redatam Webserver

The most common way to obtain the Redatam Webserver is by downloading it from the official REDATAM web site at:

http://celade.cepal.org/cdr/setup/

On this page you will find a link to an updated version of the software in the *Updates* section.

Download the *Redatam Webserver_V6Rev05.exe* file to any temporary directory in your hard disk (the version number ( 6 ) and/or the revision number ( 05) will be changed as a new version / revision of the software becomes available).

# III.     Redatam Webserver Installation

Create a new folder named "Servers" on the "C:" disk (C:\Servers), and within this folder, create a new folder called "Redatam" (C:\Servers\Redatam).[1] It is important that you have read and write permissions to this disk. Please speak to your Network Administrator if you experience any problems creating the folders on your disk.

Extract the installation files by executing the *R+WebServer_V6Rev05.exe* file (double click on the filename) in the "C:\Servers\Redatam\" directory.[2]

The whole structure of the main installation directory will be as shown in the picture below:

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[1] You can use another disk, as well as different directory names. However, be careful to change accordingly the remaining instructions in this document.
[2] This document can be found also in the "Docs" installation directory.
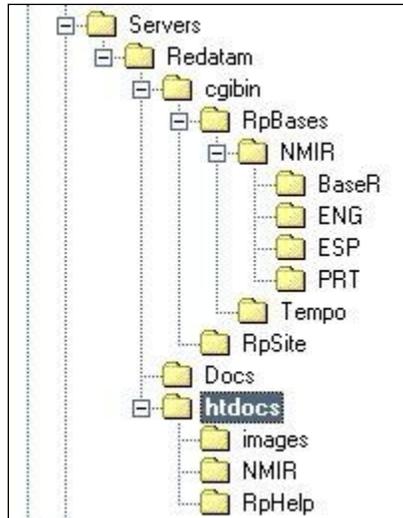
The **Redatam** directory is divided into three folders:
a)  **cgibin**, which should contain the Redatam databases, hence it should be the "protected" part of the installation;
b)  **Docs**, having all the documentation; and
c)  **htdocs**, the application's "visible" part, which should be recognized by the users through its "alias" - **Redatam**.


# IV.    The Apache Web Server

This chapter is a quick guide for persons who want to use Apache and do not yet have it installed. It is not an Apache User's Guide. The whole process was designed to make installation as easy as possible, and it does not limit you from the possibility of tailoring the installation according to your preferences. There are only two steps:

a)  The installation itself (if it is not already installed); and
b)  The editing of Apache's configuration file to make the Redatam Webserver available (copy and paste two text blocks contained in this document).


## IV.1    Apache Installation

Look for the Apache icon in the ToolBar at the bottom right of your screen to see if it is already installed and connected

(Passing the mouse over the icon should show "Running all Apache Services"). 

If the Apache server is not yet installed, go to http://httpd.apache.org/ and download the last official version (not *Beta*). This version should be located at the "Win32 Binary (MSI Installer)" on the Apache site. For the installation process, we recommend that you choose the "Typical" installation. Accept all the default options presented by the program that is just click "Next" as each screen appears. Define a domain known to the computer such as:

> DomainName =  eclac.org
> ServerName =  www.eclac.org
> ServerAdmin = myname.surname@eclac.org
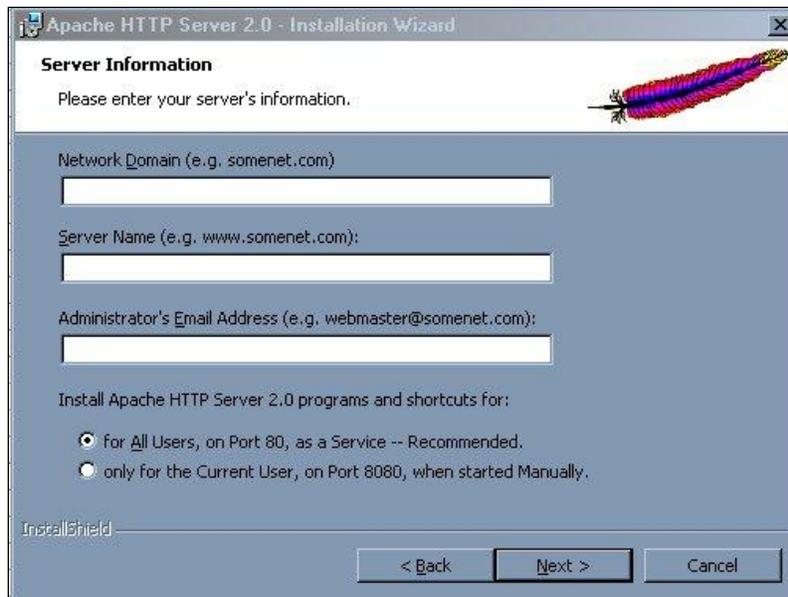
## IV.2    Check the Apache installation

After being installed, the Apache server will be automatically started and be ready for use. Look for the Apache icon in the Toolbar at the bottom right of your screen to verify that is connected. Using any Internet browser, access the default Apache page by typing the below in the address window:

http://localhost/

The following page should appear on your screen:
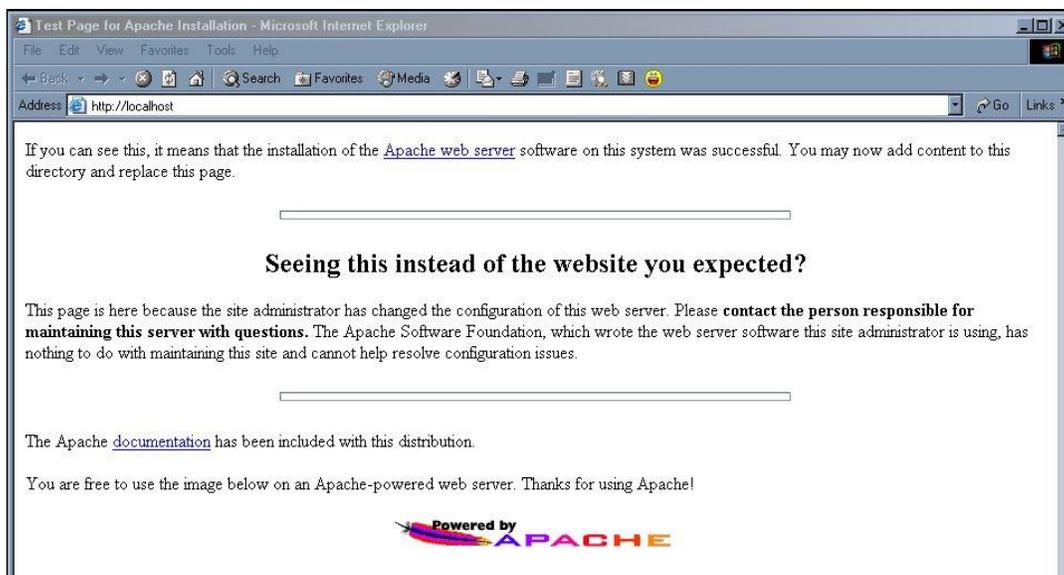
## *IV.3    Configure Apache to handle the R+WebServer*

Using any text editor, open the "httpd.conf" file located under  the "conf" directory under the Apache installation directory (C:\Program Files\Apache Group\Apache2\conf\). You can also access this file by selecting it directly from the Apache group from the main menu:

Start>All Programs>Apache HTTP Server  2.0.50>Configure Apache Server>Edit the Apache httpd.conf Configuration File

Add the following line (exact text in red) at the end of the file

                    Include "c:/servers/alias/*"
Save the "httpd.conf" file.

 Restart apache

## *IV.4    Restart Apache*

Look for the Apache icon in the Toolbar at the bottom right of your screen and left click it to show the existing options. Select "Restart", to restart the server and activated the new scripts added above. Alternatively, you may go to the Start button, select Program Files, select Apache, select Control Apache Server and select Restart.

# V.     The IIS (Internet Information Server) Web Server

Similarly to the Apache web server installation, the IIS installation is also very simple. The difference between them is that the IIS's configuration is done through its service manager (a wizard) instead of having to edit the configuration file as in the case of Apache.

## V.1     IIS Installation

In order to check if IIS is already installed, go to the Windows Control Panel, choose the *Add/Remove Programs* option, and then use the *Add/Remove Windows Components* button at the left side of the screen. The system should display the following:
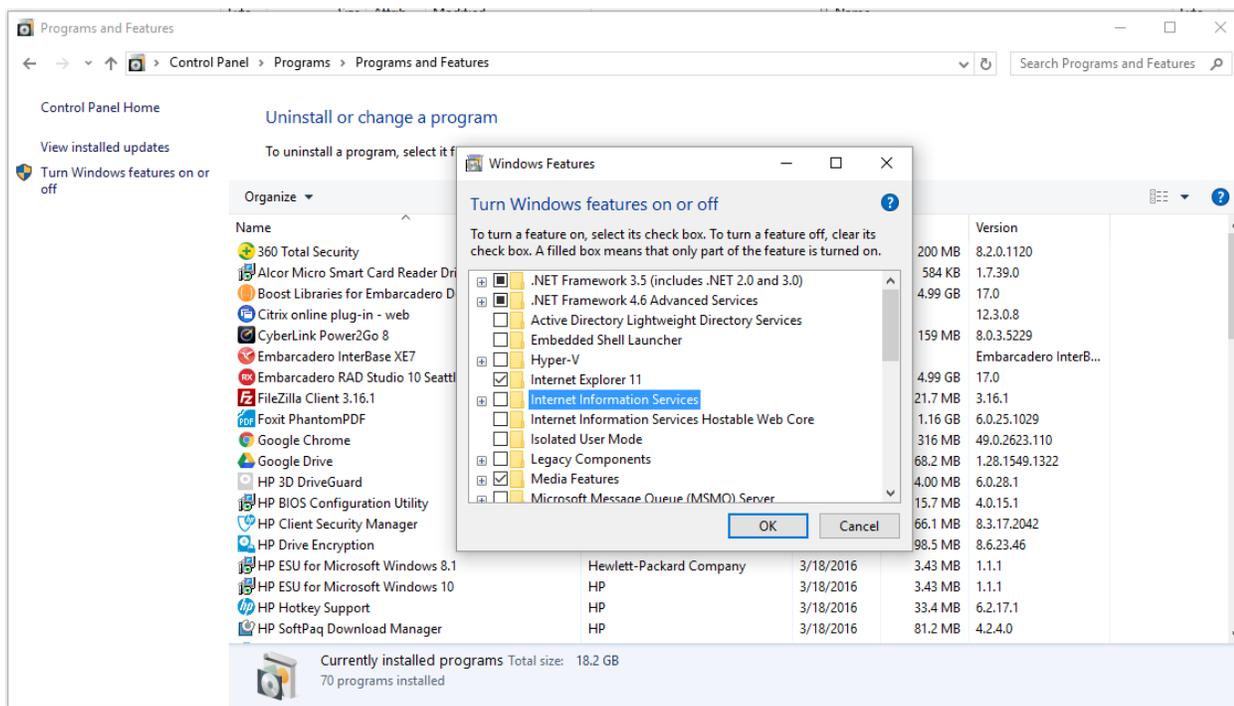


If the IIS server is already installed the system will display a check mark at the *Application Server* line, as above. If not, select the check box and this will then allow you to proceed with the installation process. Again, it is recommended that you accept the default options presented by the program. During the installation process you will be required to insert the original Windows Operating System Installation CD to complete the process.

## V.2     Check IIS Installation

Using any Internet browser of your choice, access the server's default page by typing the below in the address bar:
        http://localhost/

If this is the first time you have installed IIS, then the system should display the below screen: Either for Windows XP or Windows 10
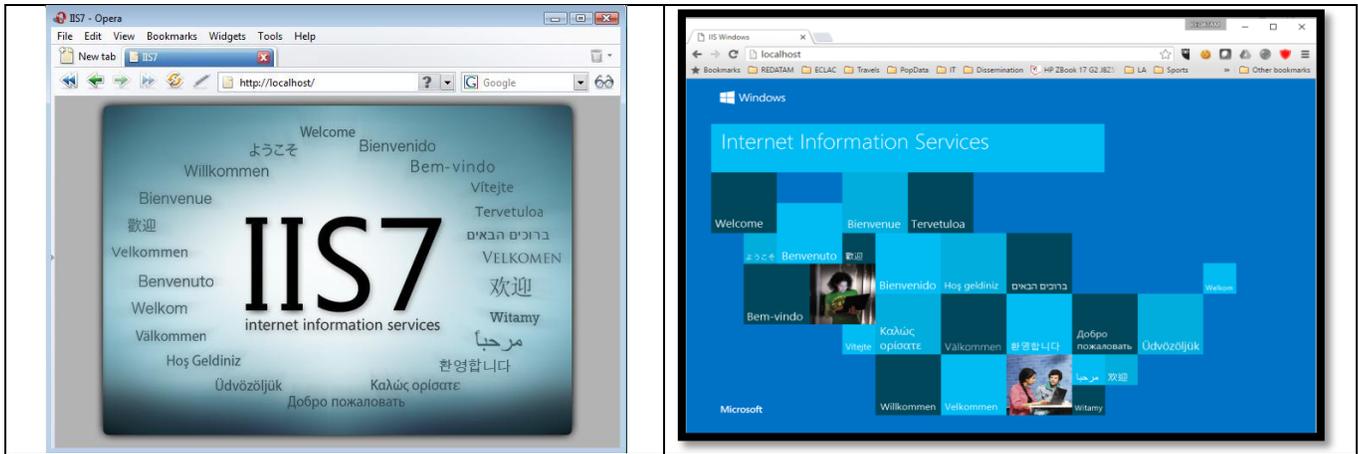
## V.3    Activate IIS Components

To activate the IIS components you have to use the *Internet Information Server Manager*, which is found through the *Windows Control Panel*, then *Administrative Tools*, and then *Internet Information Server Manager*. Add the components shown in the figure and the CGI application:
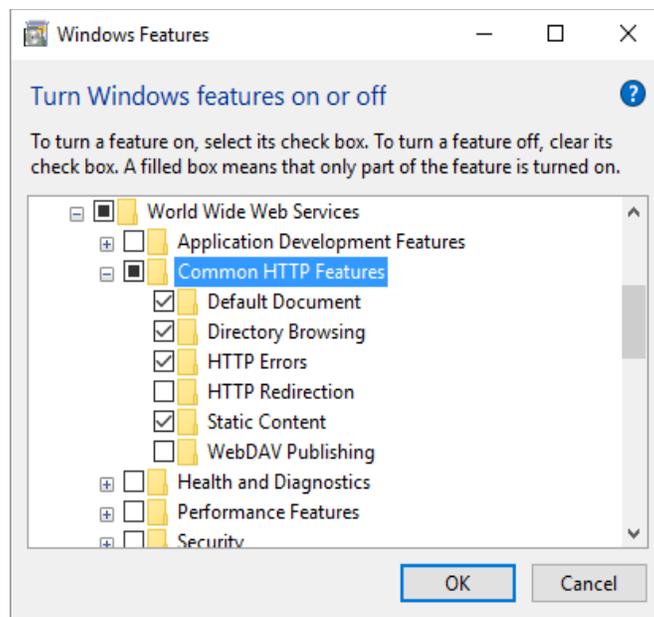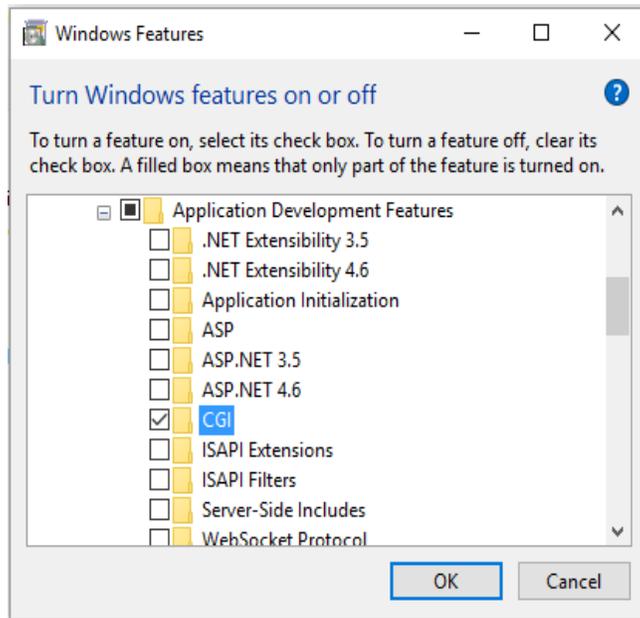
Also, add the IIS console to manage IIS configuration through this console:
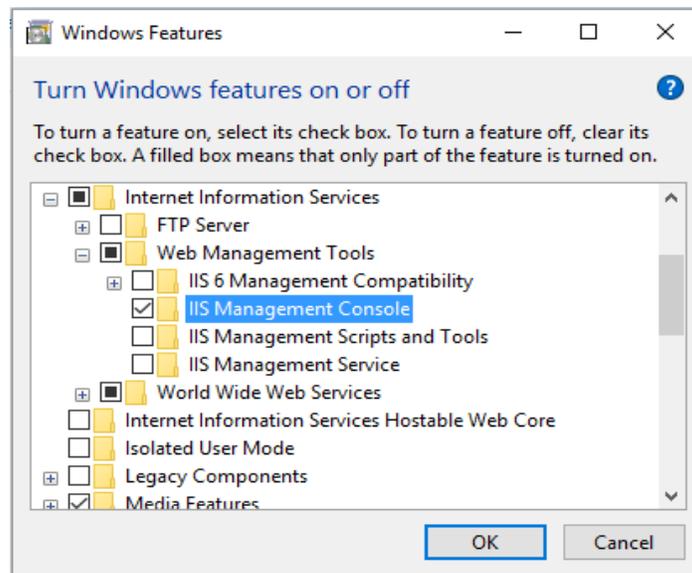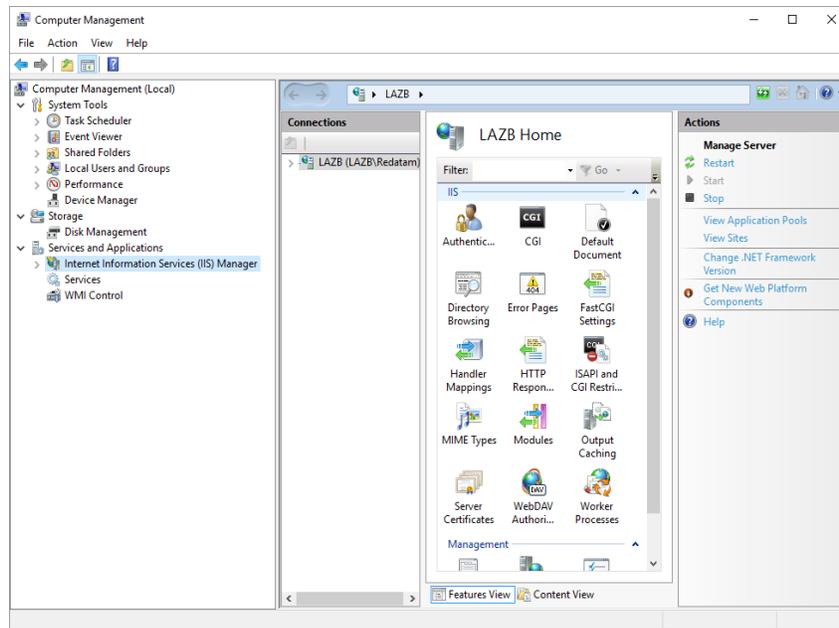
Using the Console enable the CGI restrictions to allow unspecified CGI modules:
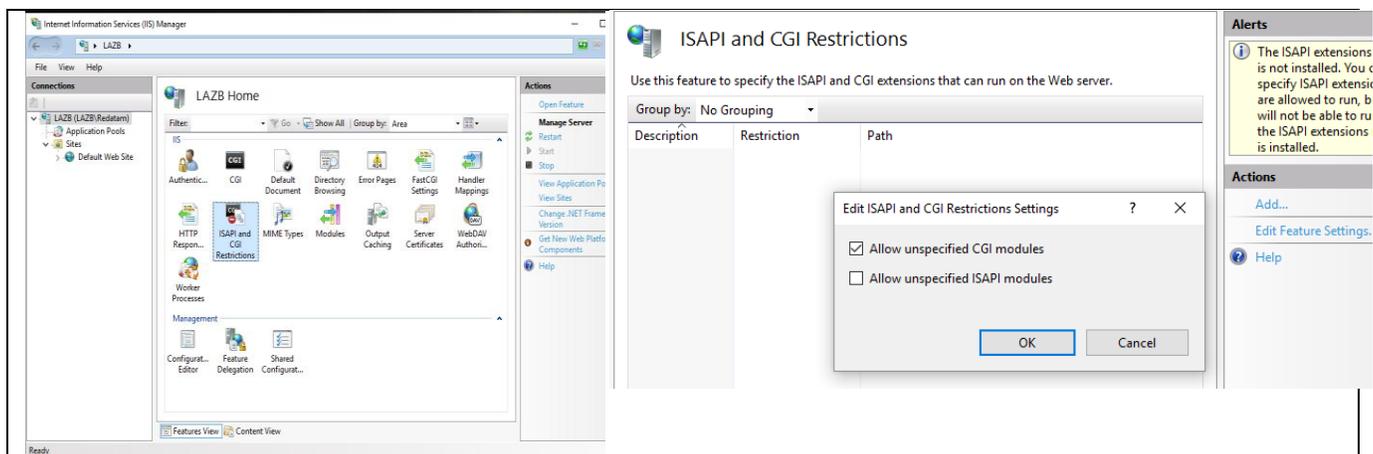


## V.4    Redatam Virtual Directory

In the IIS Manager, to create a new virtual directory, right click on *Default Web Site*, and then choose *New* and *Virtual Directory*. The system will start a Wizard to receive some parameters, the first one being the Virtual Directory Alias, which should be **redatam** (this word is case sensitive). Browse to find the "**htdocs**" directory, located where the Redatam Webserver installation files were extracted, for example: "C:\servers\redatam\htdocs":
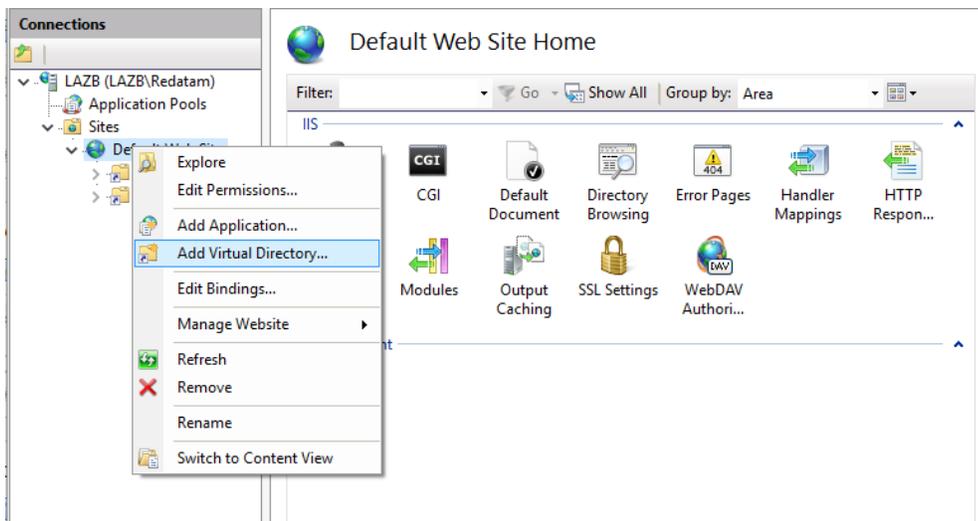
Add virtual directory "redatam" - public
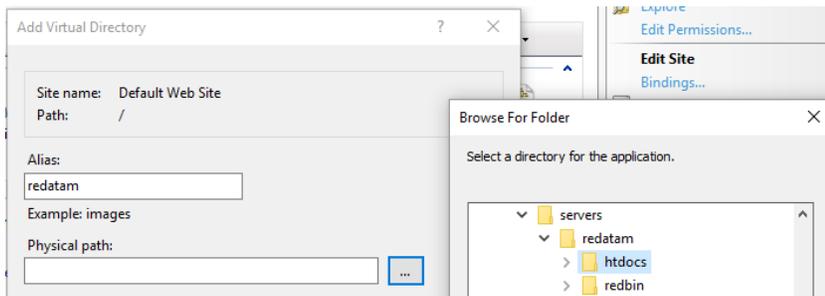


Add virtual directory "redbin" - private
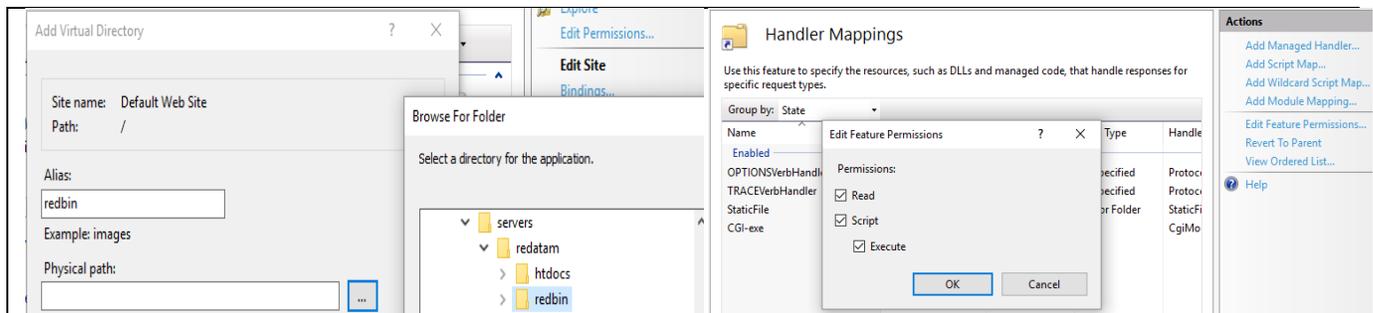


Click *Next* to finish the process, and then, using any Internet browser of your choice, access the Redatam page by typing the below in the address bar:

http://localhost/redatam

If you followed all the previous steps exactly, then the below screen should be displayed:
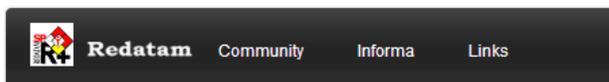
## V.5    *Check the application web server installation*

- After clicking the    On-Line Process    button the system should display the following screen:
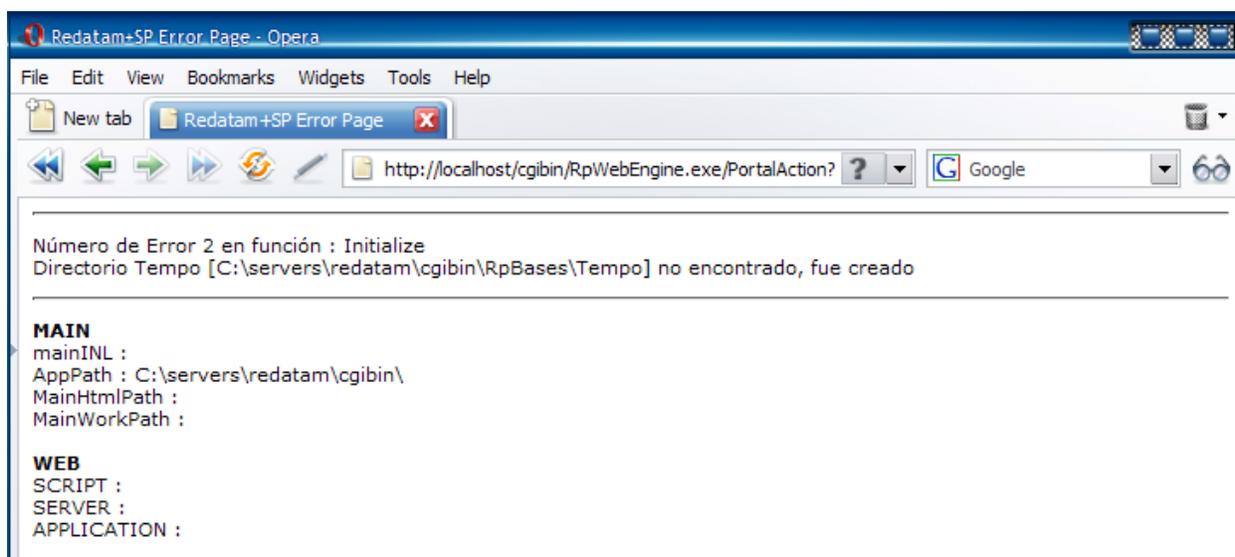
The message tells you that there is no TEMPO directory but one will be created.

Where R edatam  Webserver application is running and will proceed to create a "Tempo" directory required to store temporary Redatam files. It is important that this folder is created by the application and not copied or created on the outside by the user. In the case of reinstatement of Redatam Webserver or a new versions of Web Server, we recommend that the "tempo" folder is removed previously.

Refresh the page and now the list of databases available should be listed:



# VI.    Using other databases with the REDATAM server

Before you arrange the site structure for another database it is important that you understands the file structure of the site. Be aware that there are two branches that exist under the root directory **servers/Redatam**, as it is shown in the figure (cgbin and htdocs):
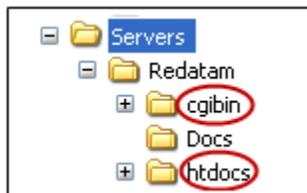
These two branches are related, they keep all the files that are necessary to run the Redatam Web application. The first branch under **servers/Redatam** is **cgibin,** and it is private. It is used to keep protected files and directories (databases, images, maps, inl files, etc.) required for the Web application; the second branch is **htdocs** is used to keep all public files and documents (help files, images, etc. in general, all files referenced by the html files executed in internet). For each application that you create you should create also a private and a public subdirectory (you can use the same name) under these branches.

Under the private **cgibin** branch you should have created the *Rpbases* folder and under this subdirectory you should create a folder with the new database Web Application. Then, under the database Web application create these three subdirectories:

> /base ( for files .dic, .rbf, .ptr )
> /work ( for command sets)
> /nodes (for specific thematic nodes)
> /set (for default parameters)
> /sel (for selection files)
> /map (for maps configuration files)

Under the public **htdocs** branch you should have created a subdirectory with the same name of the database Web Application. In this folder locate all public files and images referenced by the html files of the application.

New Miranda example:
The database and inl files are located under *cgibin/Rpbases/NMIR* and those images references in the html files (*RpOutput_ESP.htm*) in addition to the help files are located under *htdocs/NMIR.*
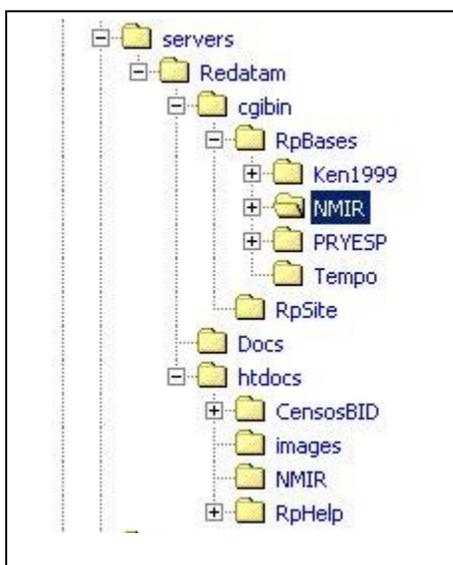


The next step is to update the inl file that controls the Redatam site main *Webservermain.inl* located in *\Redatam\cgibin.*

Create your own application.

Now open the file Webservermain.inl with a text editor of your choice and enter the section STRUCTURE and then find the NODES section where the new applications or databases are listed as shown in the figure the entry for New Miranda, you will create a new entry:

```
NODES=200
NODE1=TITLE
NODE2=*
NODE10=NMIRGROUP
NODE11=*
NODE20=ONLINEGROUP
NODE21=*
NODE30=SPECIALGROUP
NODE31=*
NODE40=CENSUSGROUP
NODE41=*
NODE50=ENCUESTAGROUP
NODE51=*
```

In this case we will add a node called MIPROYECTO as seen in the picture below.

```
NODES=121
/NODE1=TITLE
NODE2=*
NODE10=NMIRGROUP
NODE11=*
NODE20=ONLINEGROUP
NODE21=*
NODE40=SPECIALGROUP
NODE41=*
NODE30=CENSUSGROUP
NODE31=*
NODE50=ENCHOGGROUP
NODE51=*
ITEM60=DHSGROUP
ITEM61=*
NODE70=ESVITGROUP
NODE71=*
NODE80=ENCAGRGROUP
NODE81=*
NODE90=CENAGRGROUP
NODE91=*
NODE100=ENCINDGROUP
NODE101=*
NODE110=ENCEDUGROUP
NODE111=*
NODE120=MIPROYECTO
NODE121=*
```

Then create a new section with the same name. In this section you declare what type of applications and where is located. Also designate the main inl file of this application such as the guest.inl file:

**[MIPROYECTO]**
CAPTION=Mi Proyecto
INL=RpBases\MiProyecto\NombreProyecto.inl
PAGETYPE=BASE

Verify that your application is stored in the private part of the Redatam Server
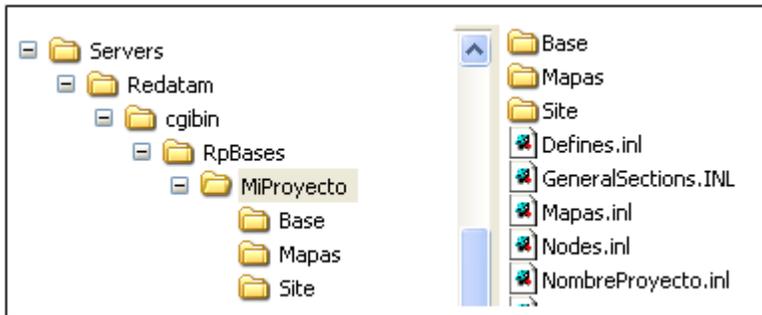
Folders that should be created:
/Base (for the files .dic, .rbf, y .ptr)
/Maps (for selection files with the extensions -.slw, .sel-, and maps - .mxp, .shp, .shx, .dbf)
/Site (for images .jpg, .gif and  html  corresponding to the base or new adjusted templates of RpSite)

The "visible" part of the application, ie public files, htm files, images, PDF files or other-should be located in the C: \ servers \ redatam \ htdocs. Under this directory you should  insert directories for each project as in the case of the private cgibin folder, it is suggested to arrange the information in subdirectories, as in the example servers / Redatam / htdocs / MiProyecto.
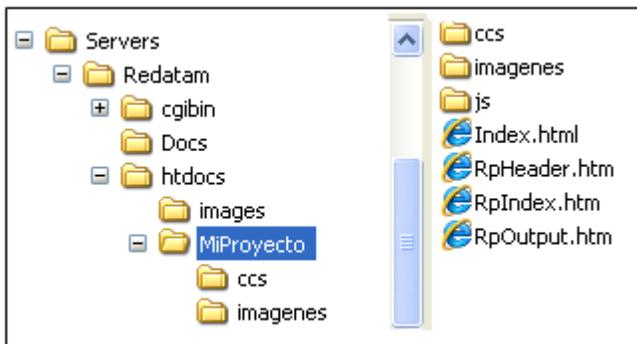


In summary, for the sample application, we stores all the database and pages. Inl under servers / Redatam / cgibin / Rpbases / MyProject and all the images and docs,  Htm and help files under servers / Redatam / htdocs / MyProject.
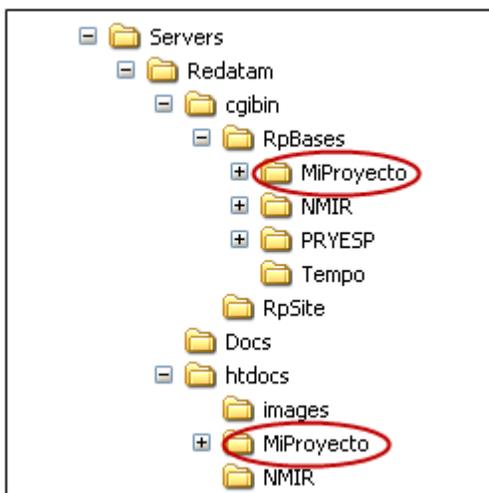
Now, you are ready to create the *Guest.inl* file under the database application folder. Edit this file adding all the parameters as they are in the New Miranda example, starting from the STRUCTURE section:

```
[STRUCTURE]
MODE=APPLICATION
ALLOWRESTART=YES
PLANID=NMir Census
CAPTION=R+SP webPlan Census Application

DATASETS=1

SELSET=SELSET1
LASTSELECTION=1
```

Then, identify all the files that hold other information used by the application and included in the guest.inl file:

```
#include Preferences_ENG.inl
#include DataSels_ENG.inl
#include Panels_ENG.inl
#include Styles_ENG.inl
#include GeneralSections_ENG.inl
#include Pages_ENG.inl
#include Defines_ENG.inl
#include Maps_ENG.inl
#include Utilities_ENG.inl
```

Now you are ready to try your application. Open the internet explorer window and write

http://localhost/redatam