



iBrowse™ Installation – TKSQL (Updated March - 2009)

Required components for installing iBrowse™:

Customer responsibility		Dealer responsibility
Required Component	Level	
MS-WIN 2000 advanced server	Server	Installation CD
MS-SQL 2000 Database	Server	
COM +	Server	
IIS (Internet Information Services)	Server	
Internet Explorer 6.0 or later	Server & Workstations	

The installation CD (consists of the following directories):

Directory	Description / Further details
..\ Client	For TK2000 use only.
..\ COM Objects	Objects to install on the server
..\ iBrowse	ASP (Active Server pages) to install on the server i.e. iBrowse user interface
..\ DOTNET	The installation program of Microsoft.net framework 2.0
..\ Encrypt	ENCRYPT.EXE calculates the string which is used in the ibrowse.ini file
..\ SQL Database	SCRIPT files to install on MS-SQL Database
..\ SYSTEM32	DLL Files to install in the server's WINNT\SYSTEM32 Directory
..\ TIMEKEEPER	Recent updates to TimeKeeper back office engine, relevant to iBrowse™ gateway
..\ Windows	INI File to install in the server's WINDOWS (WINNT) Directory
..\ VBRunTime	
..\ Misc	

Note: If the installation is performed on a **WINDOWS 2003 SERVER**, Please see the "iBrowse Installation - WIN2003 Procedure" appendix for additional system configurations.



Setup steps

1. [Upgrade and Backup TimeKeeper SQL](#)
2. [Copy the installation disk to the server's \[C Drive\]](#)
3. [Install .NET Framework on the server](#)
4. [Updating the server with **COM objects** and iBrowse™ **Asp's**.](#)
5. [Installing a **virtual directory** on server](#)
6. [Updating the server's **WINDOWS\SYSTEM Directory**](#)
7. [Installing **COM+** components on the server](#)
8. [Updating TK database in **MS-SQL server**](#)
9. [Specifying **iBrowse™ INI file**](#)
10. [Set up the **IBRW** User](#)
11. [Set up the **IBR2** User](#)
12. [Load iBrowse™](#)
13. [Configure daily calculations](#)
14. [Troubleshooting](#)
15. [Appendix: **iBrowse Installation - WIN2003 Procedure**](#)
16. [Appendix: **Setting up iBrowse Login Based on Active Directory**](#)



Step 1 – Upgrade and Backup TimeKeeper SQL

- 1.1 Upgrade TimeKeeper to the most recent version.
- 1.2 Backup the database before installing iBrowse.

Step 2 – Copy iBrowse™ installation CD to the server's LOCAL drive

- 2.1 Ensure that all files have both read and write attributes

Note: It is recommended to copy the Install folder to the main directory of the iBrowse (e.g c:\iBrowse\Install)

Step 3 - Install .NET Framework on the server

- 3.1 Run the **dotnetfx.exe** file located under the **DOTNET2** directory, click Yes to install the ".NET Framework 1.1 Package". This .NET version must be installed for iBrowse version 7.01 dated 06/08/2007 onward.

Step 4 - Updating the server with COM objects and iBrowse™ Asp's.

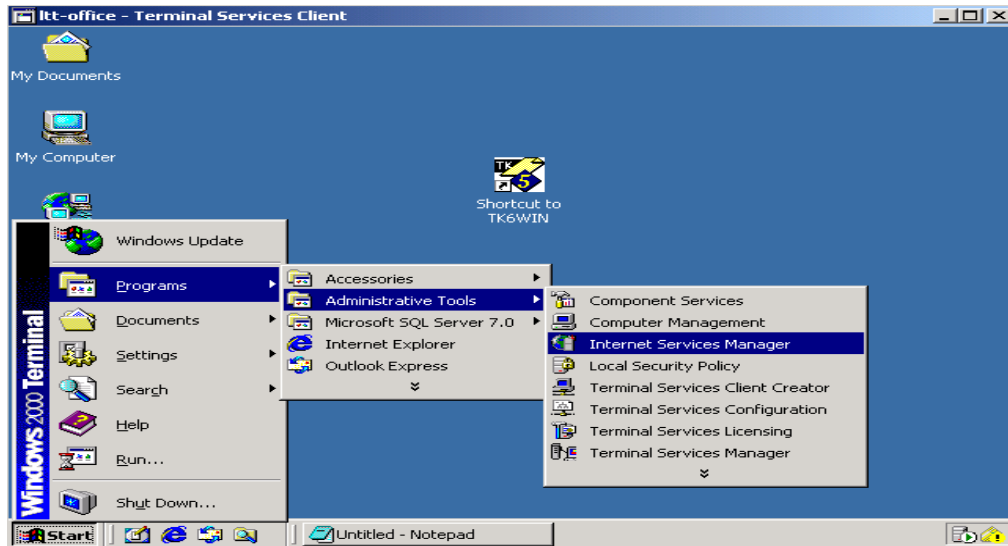
Create the following directories in the server: **C:\iBrowse\iBrw_obj**
C:\iBrowse\iBrw_web

Copy all objects from **[COM OBJECTS]** directory (i.e. iBrowse installation CD) to **C:\iBrowse\iBrw_obj**
Copy all objects from **[iBrowse]** directory (iBrowse installation CD) to **C:\iBrowse\iBrw_web** directory

Note: After copying the files from the installation CD, ensure that all files have both read and write attributes.

Step 5 - Installing a virtual directory on the server

5.1 Load "Internet Service Manager" or "Internet Information Services".

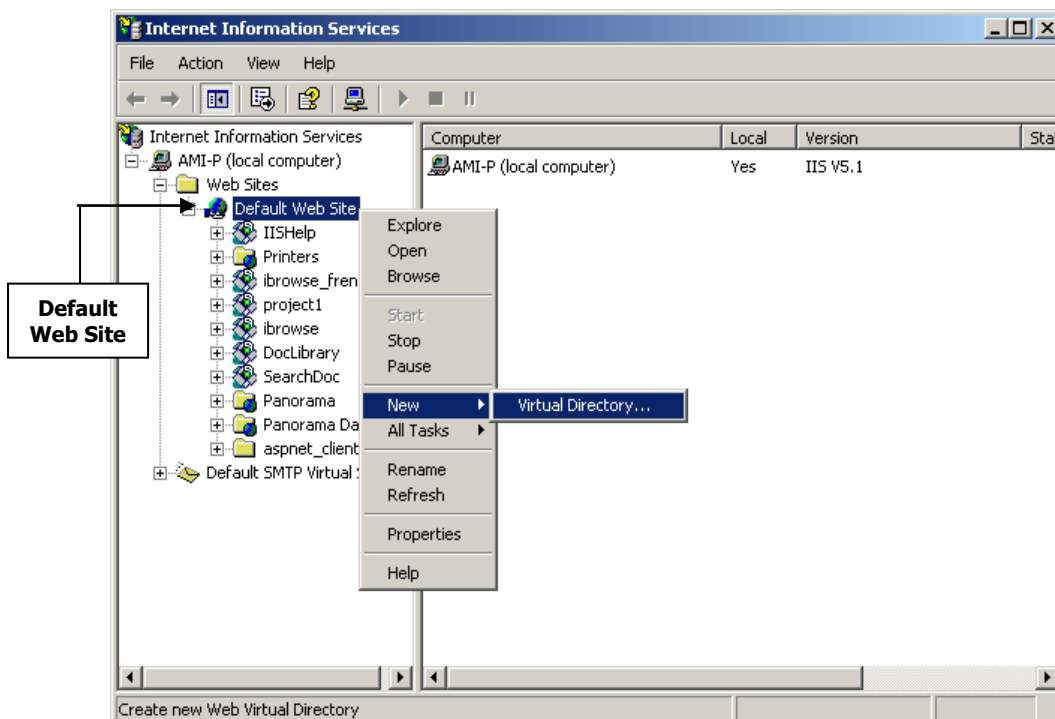


Note: In case "Internet Service Manager" does not appear, install **IIS**.

In Windows XP:

Start -> Control panel -> Administrative Tools -> Internet Information Services

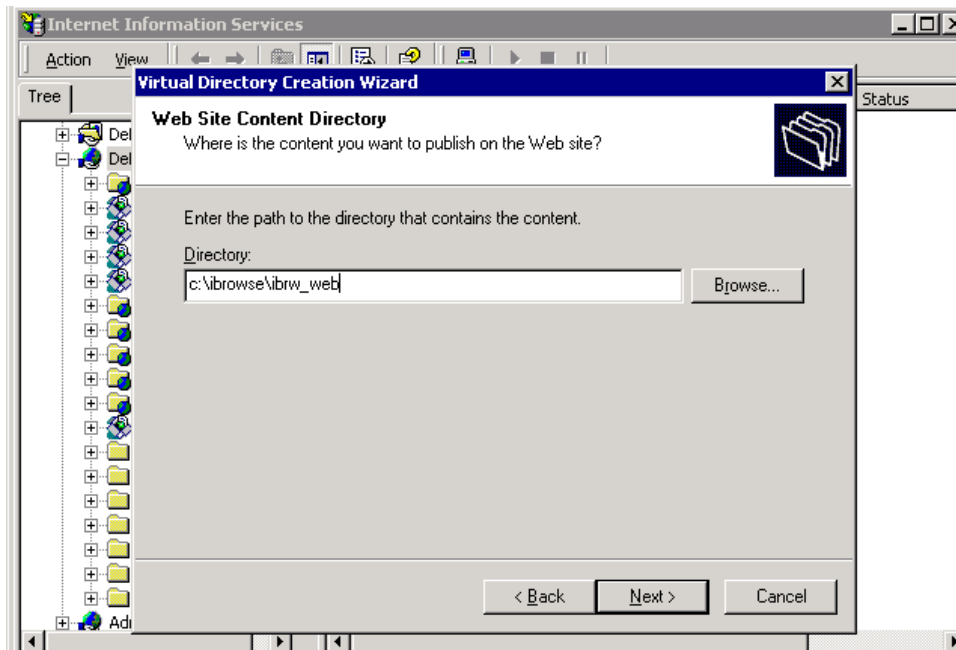
5.2 Create a Virtual Directory by right-clicking on "Default Web Site" and choosing "New" and then "Virtual Directory".



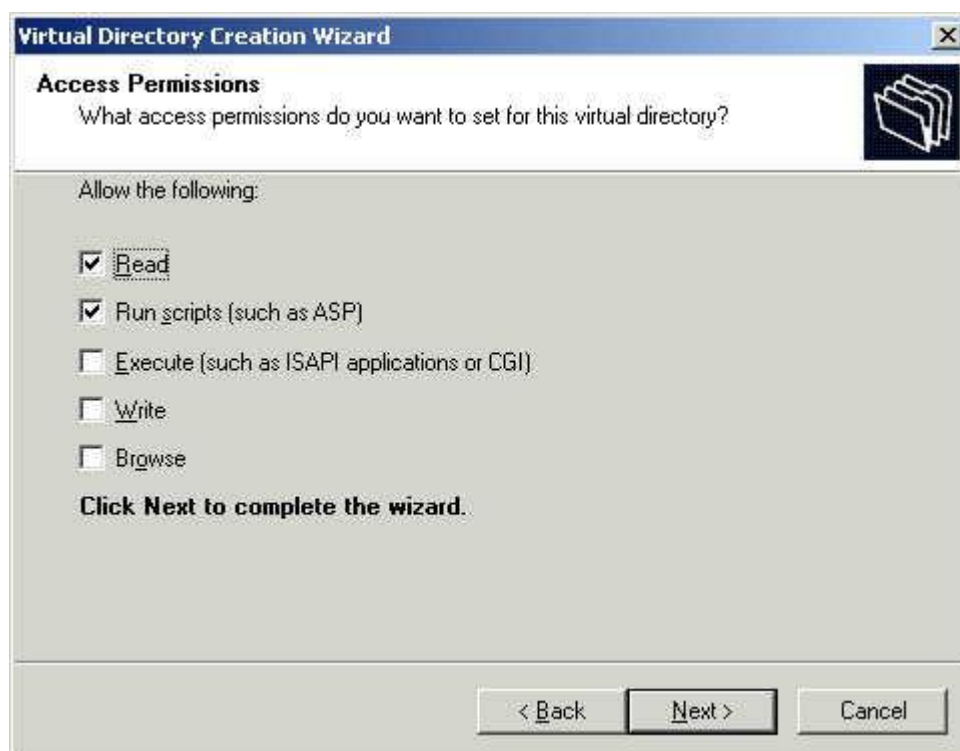
Specifying virtual directory's alias:



Specify the iBrowse™ WEB directory i.e. in which iBrowse™ files reside:



Specify the following permissions :



The image shows a Windows-style dialog box titled "Virtual Directory Creation Wizard". The main heading is "Access Permissions". Below it, a question asks: "What access permissions do you want to set for this virtual directory?". To the right of the text is a folder icon. The main area of the dialog is labeled "Allow the following:" and contains a list of permissions with checkboxes:

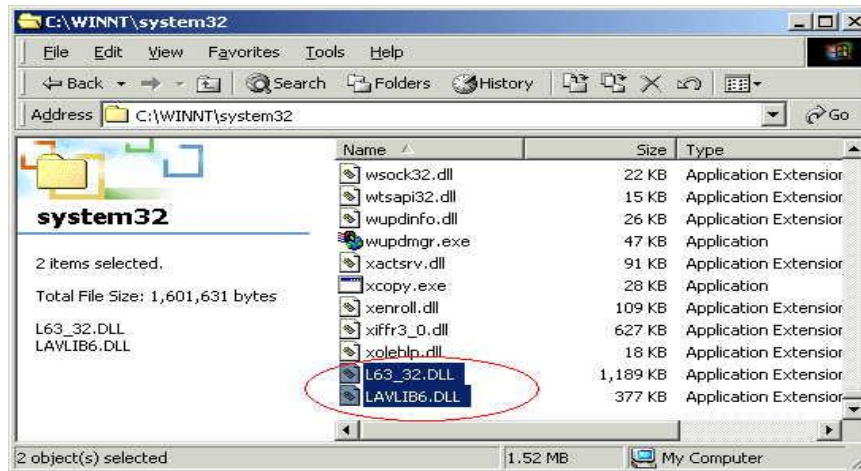
- ☒ Read
- ☒ Run scripts (such as ASP)
- ☐ Execute (such as ISAPI applications or CGI)
- ☐ Write
- ☐ Browse

Below the list, it says "Click Next to complete the wizard." At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

Step 6 - Updating the server's WINDOWS\SYSTEM Directory

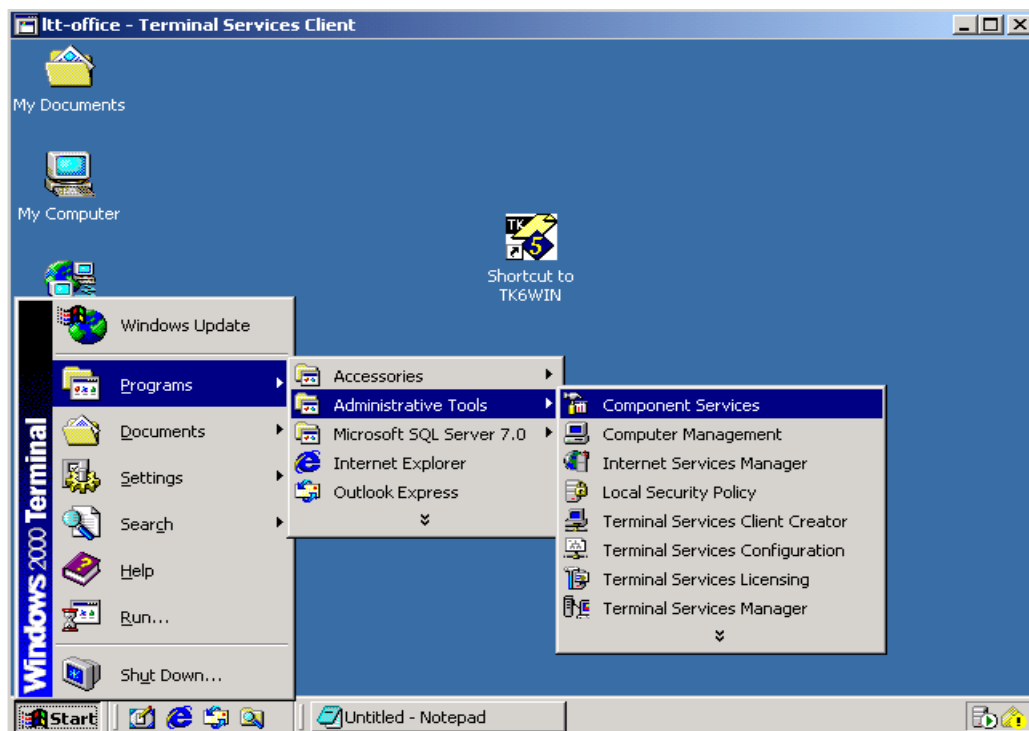
Copy all files from the server's **..|iBrowse|Install-set\System32|SQL** to the server's **..|WINNT\System32** directory. As a result, the following files will be added to the **..|WINNT\System32** directory:

L63_32.DLL, LAVLIB6.DLL, LAVDLL32.DLL

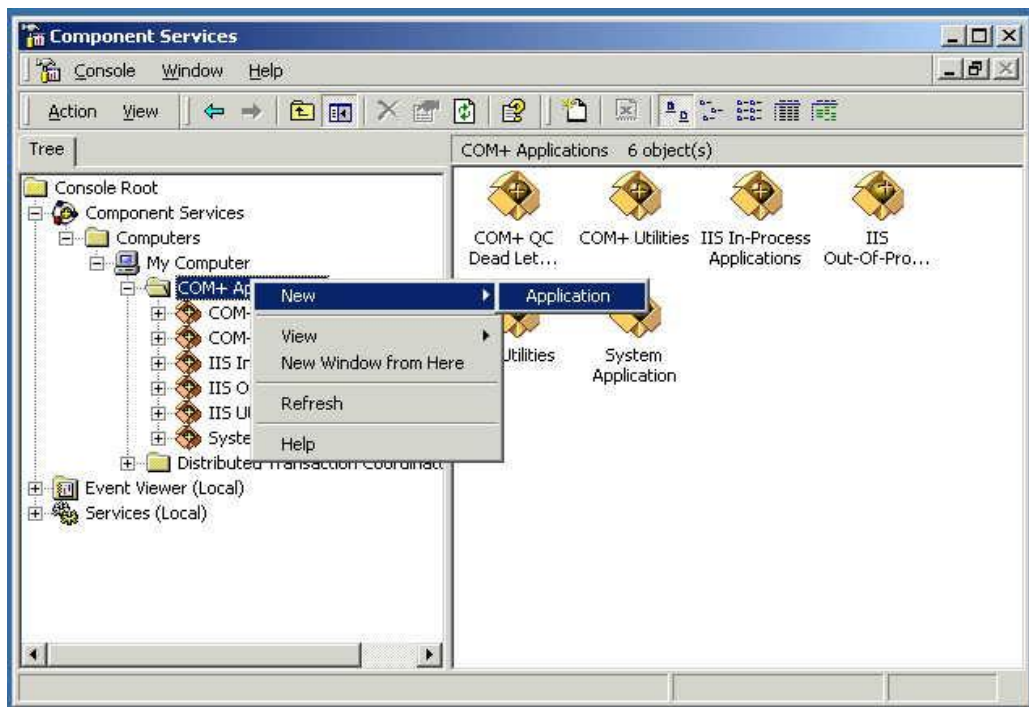


Step 7 - Installing COM+ components on the server

7.1 Load "Component Services":



7.2 Open a new application:



7.3 Select "Create an empty application"



7.4 Name the application "IcClock"

Welcome to the COM Application Install Wizard

Create Empty Application
Please specify the name of the new application.

Enter a name for the new application:
IcClock

Activation type

☐ Library application
Components will be activated in the creator's process.

☒ Server application
Components will be activated in a dedicated server process.

< Back Next > Cancel

7.5 Set the application identity to "This user":

Choose "This User", set the username and the password to "iBrowse" (or any other username and password defined on the server or on the network). The TK COM objects will be loaded on the server using this user's privileges. When done click Next.

Welcome to the COM+ Application Install Wizard

Set Application Identity
Please specify the application identity.

Account

The application identity will be set to the following account. Components in the application will run under this account. If you are creating more than one application, this setting will be applied to each application.

☐ Interactive user - the current logged on user

☒ This user:

User: TKUSER Browse...

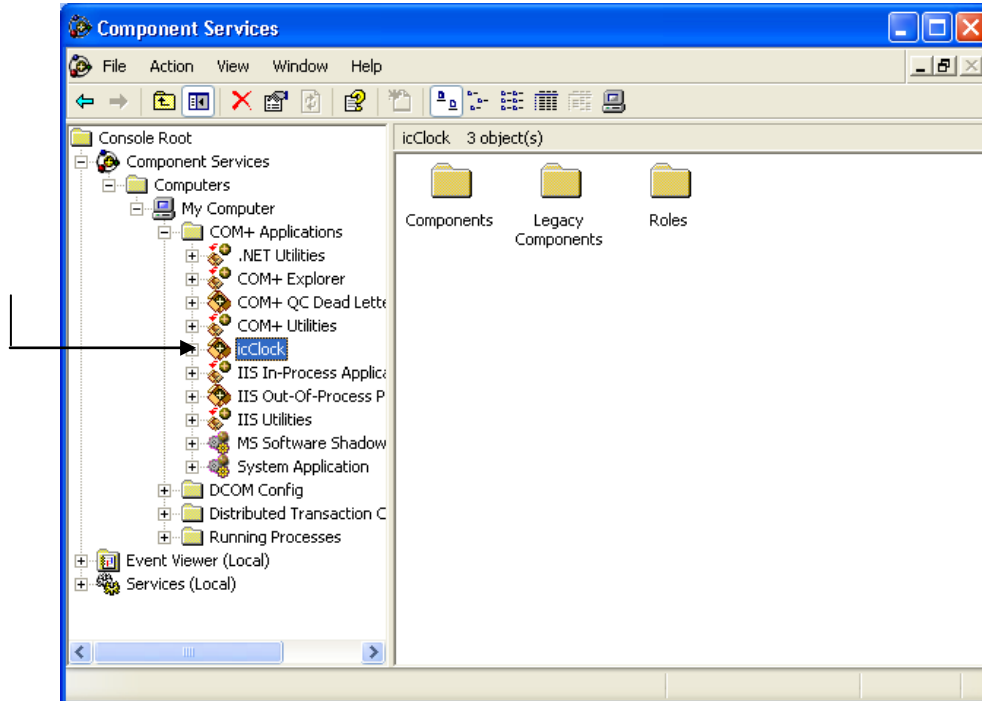
Password: XXXXXXXX

Confirm password: XXXXXXXX

< Back Next > Cancel

Note: The access to the application directory (TK programs) must be set as UNC (instead of "traditional" drive mapping, as drive mapping does not work when the server is in log-off mode).

"IcClock" will be created:



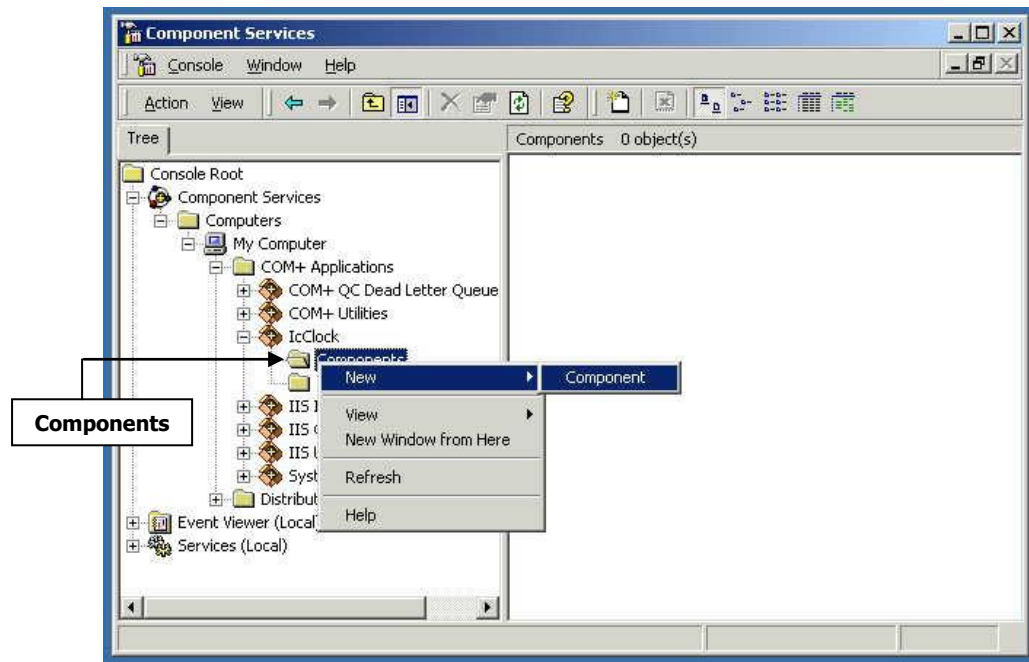
7.6 IT Department security configuration requirements for COM+ application user

Application identity user must be configured in order to run iBrowse on situations the server is in log-off mode.

The minimum security requirements for the application user should be configured **by the IT department** as follow:

	Privileges in installation process		Privileges after installation		
Member of	Administrators (Local for the required machines should be enough)		IIS_WPG, Users, Distributed COM Users, Simultaneously logged-in in the entire Farm.		
	Client	COM+	TK	SQL2005	IIS
Member of (By Servers) Share Folder		Distributed COM Users	Users	Users	IIS_WPG, Users
Remote Registering Virtual Printer			TKSQL, all the rights TK Components		
	Acrobat Reader	PDF Spooler, Port Configuration as user			
Virtual Directory					IIS definitions
COM+		COM+ Security DTC, COM+ Installed			Proxy installation including dependency file in system32
Data Accessibility				Local account as administrator of database	
Packets		VB Runtime	VB Runtime		2.0, ASP.NET

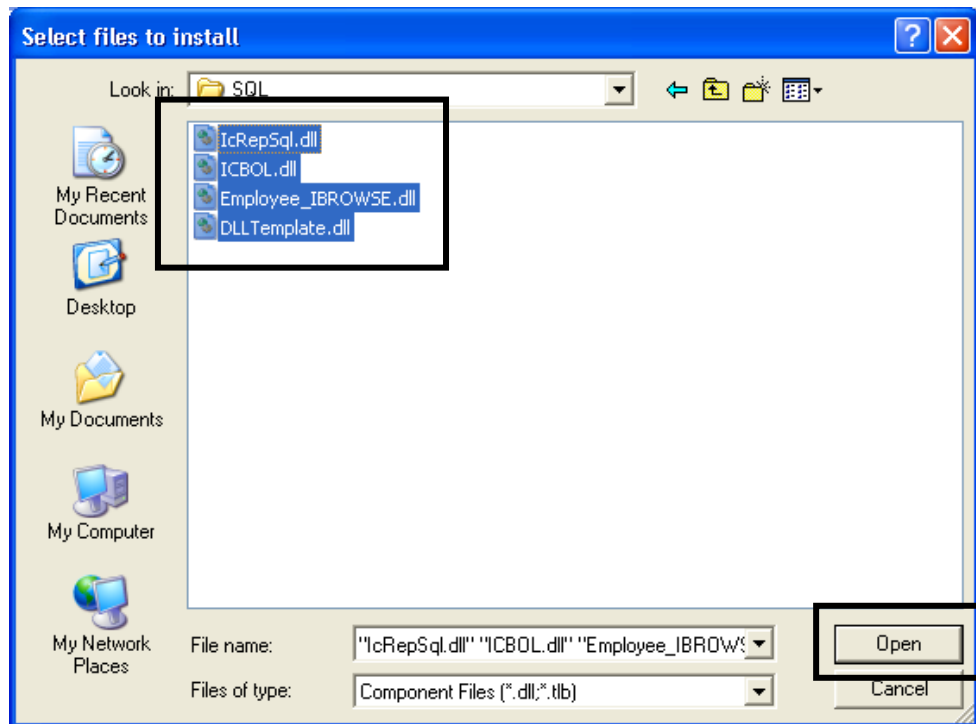
7.7 Create a new component



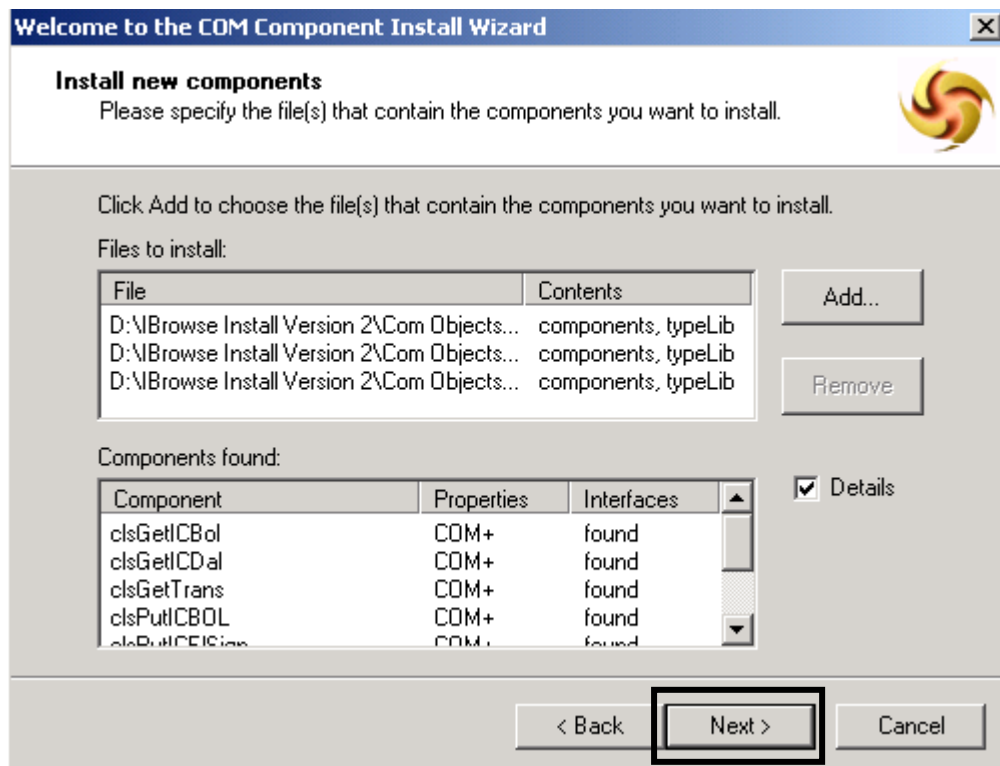
7.8 Install the new component(s)



7.9 Select all files from [../iBrowse/iBrw_obj] directory; Click **Open**



7.10 Run the Installation

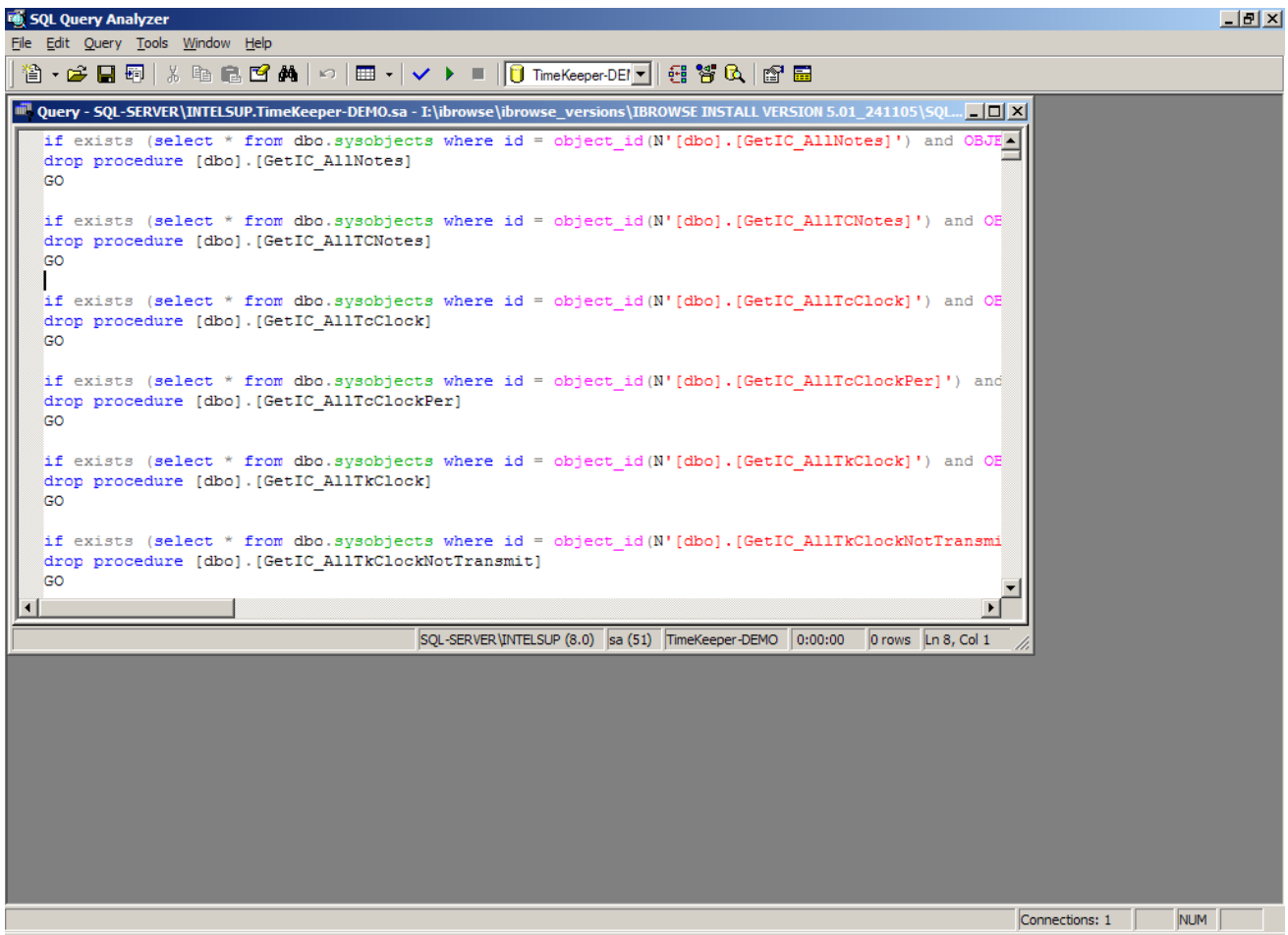


7.11 Select "FINISH"





STEP 8- Update the TK DB: Load Query Analyzer, and run "STOREPROC" under ..\SQL Database\SQL:



Note: In the end of the process, a message indicating success/failure will appear.

Step 9 - Specifying iBrowse™ INI file

9.1 Copy **IBROWSE.INI** from **[C:|iBrowse|Install-set|Windows]** directory to the server's ..\WINDOWS directory e.g. ..|**WINNT**|

9.2 Edit **IBROWSE.INI**:

IBROWSE.INI Consist of 7 lines:

Line (1) – [SYS_PARAM] : This is NOT to be changed.

Line (2) – [Data source] : The SQL server's name.

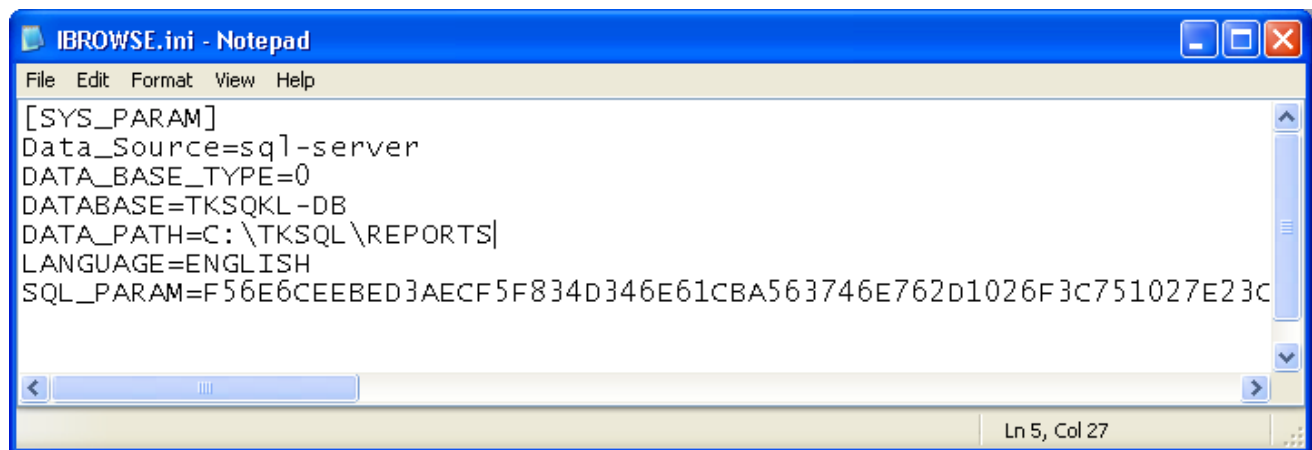
Line (3) – [Data base type] : 0.

Line (4) – [Database] : TKSQKL – DataBase Name.

Line (5) – [Data path] : A blank directory, **must be under the TK programs directory** (Used for reports).

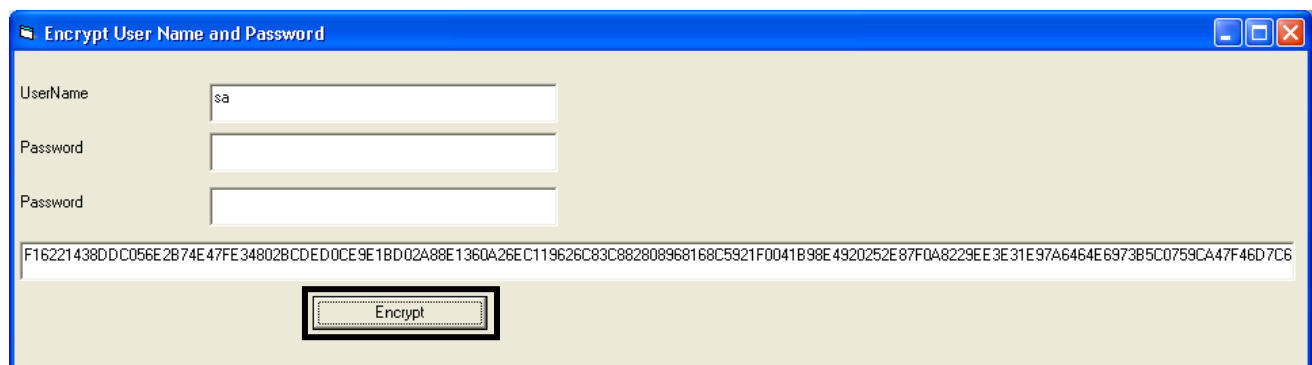
Line (6) – [Language] : The language selection relevant ONLY to the login screen.

Line (7) – [SQL_PARAM] : A String represents the username and password (encrypted) in **SQL**



```
[SYS_PARAM]
Data_Source=sql-server
DATA_BASE_TYPE=0
DATABASE=TKSQKL-DB
DATA_PATH=C:\TKSQL\REPORTS
LANGUAGE=ENGLISH
SQL_PARAM=F56E6CEEED3AECF5F834D346E61CBA563746E762D1026F3C751027E23C
```

In order to generate the string which represents the username and password in **MS-SQL**, run **C:|iBrowse|Install-set|Encrypt|Encrypt.exe**. Specify the user name, password, password re-confirmation and "[Encrypt]" :



UserName: sa

Password:

Password:

F16221438DDC056E2B74E47FE34802BCDED0CE9E1BD02A88E1360A26EC119626C83C882808968168C5921F0041B98E4920252E87F0A8229EE3E31E97A6464E6973B5C0759CA47F46D7C6

Encrypt

The String will be created in the last line. **Copy the string (using COPY and PASTE commands) to the IBROWSE.INI file relatively** i.e. to the [SQL_PARAM] line.

Step 10 – Setting up the IBRW User

Setup a new user (i.e. **IBRW**) within TimeKeeper (i.e. **USERS.EXE** program). The definitions for this user are irrelevant as it simply uses for **AUDIT TRAIL** and **Reports** (as per changes made in iBrowse module). Ensure that "System Administrator" option will be de-selected for iBrowse user and that the Language field matches the primary language of the TimeKeeper as set in the SYSCNF file.

The screenshot shows the 'Users' window with the 'User Name' field set to 'IBRW'. The 'General Parameters' tab is active. The 'System Administrator' checkbox is unchecked. The 'Language' field is set to 'English'. The 'Expiration Date' is '01/01/2010'. The 'Configuration Profile' is '0'. The 'Employee Number' is '0'. The 'Employee Last Name' and 'Employee First Name' fields are empty.

Step 11 - Setting up the IBR2 User

In case a second language is used, an additional user needs to be defined as in step 10, but with the required second language chosen.

The screenshot shows the 'Users' window with the 'User Name' field set to 'IBR2'. The 'General Parameters' tab is active. The 'System Administrator' checkbox is unchecked. The 'Language' field is set to 'French'. The 'Expiration Date' is '01/01/2010'. The 'Configuration Profile' is '0'. The 'Employee Number' is '1599'. The 'Employee Last Name' is 'ZHAO'. The 'Employee First Name' is 'RUJIN'. The 'Can authorize shift STD excess in TSM' checkbox is checked.

Note: If the installation is performed on a WINDOWS 2003 SERVER, Please see the "iBrowse Installation - WIN2003 Procedure" appendix for additional system configurations.

Step 12 – Load iBrowse™

In order to load iBrowse™, specify the following:

<http://SERVERNAME/Ibrowse> e.g. <http://TimeTECH/Ibrowse>



The screenshot displays the iBrowse web interface. At the top left is the 'iBrowse TK's Internet Gateway' logo. The top right corner features the 'LAVIE TimeTECH' logo. The background is a collage of pocket watches. The login section includes a 'User Name:' label and an input field, a 'Password:' label and an input field, a 'Logon' button, and a 'New Password' link. The footer indicates 'Version 4.01 - 25/10/2004'. The status bar at the bottom shows 'Done' and 'Local intranet'.

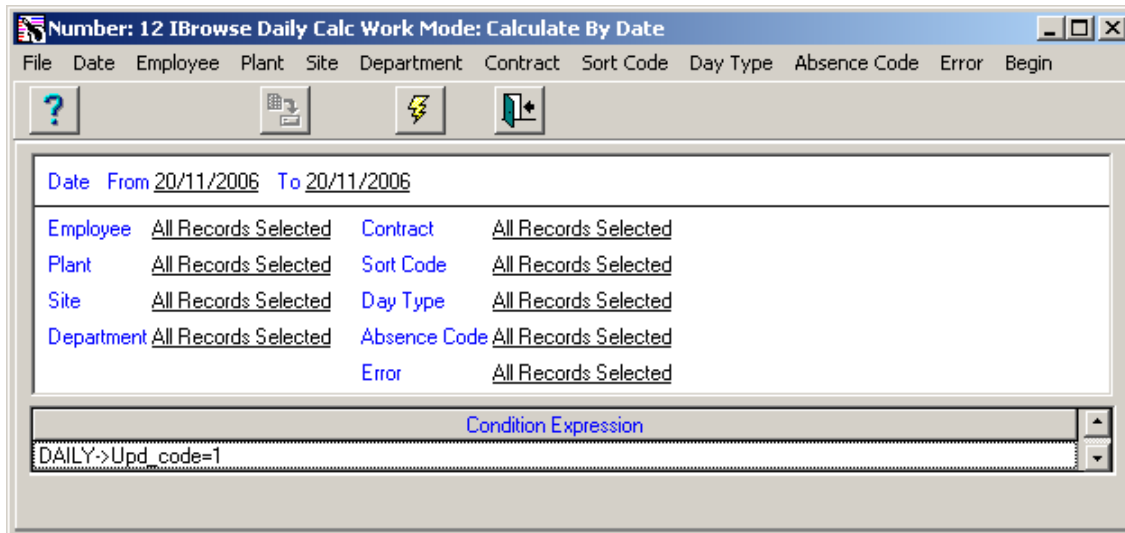
Once the web page is loaded, the installation is complete. Proceed to **iBrowse Set-Up (TKSQL)** for system configuration.

Step 13 – Configure the Daily calculations

The daily records coming into the daily file from iBrowse are not being calculated and therefore the records remain unclosed (colored red). In order to resolve this, an automated daily calculation needs to be defined and activated via scheduler.

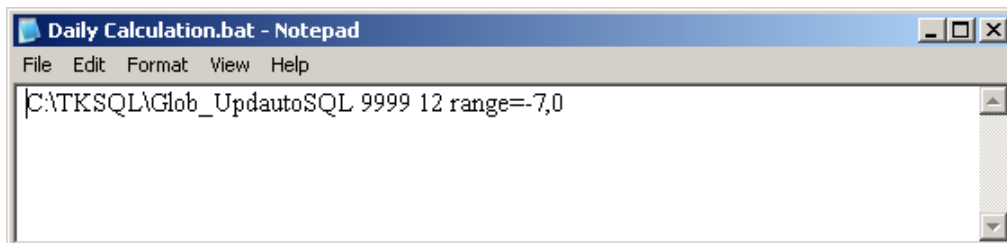
13.1 Define the Daily Calculation Profile

Define a daily calculation (by Date) and make sure all employees are chosen. Add the following condition: **DAILY->Upd_code=1** to make sure only unclosed records will be calculated. Please note that the date range definition is determined from within the command line and therefore is meaningless in the select screen.



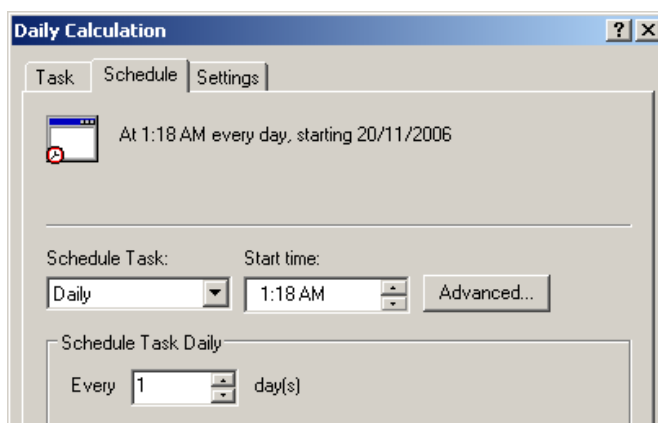
13.2 Define a Batch file

Define a batch file with the below command, set the days range to calculate (in the example below the calculations will be carried out 7 days back till the current day).



Note: In order for all employees to be calculated, please use a user that has access to all employees.

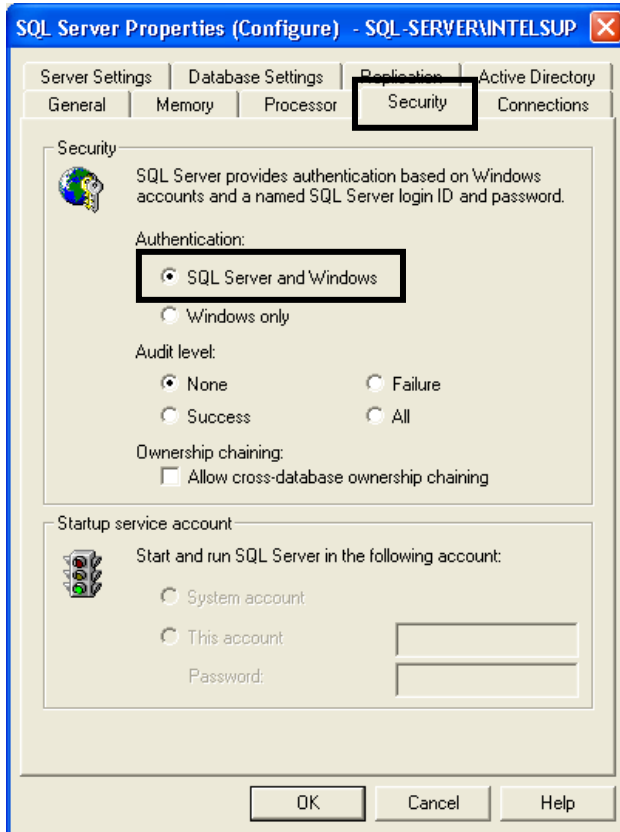
13.3 Define a daily task in the scheduler for the Batch file



STEP 14 - Troubleshooting

1. "Login Failed for user "iBrowse user". Reason: Not associated" while loading iBrowse web site:

- a. The user is not defined in MS-SQL database correctly. In most cases, the cause is defining the user in "windows authentication" work mode. Load **MS-SQL Enterprise manager**, enter the server properties, go to the security tab and ensure selecting "MS-SQL Authentication" work mode.

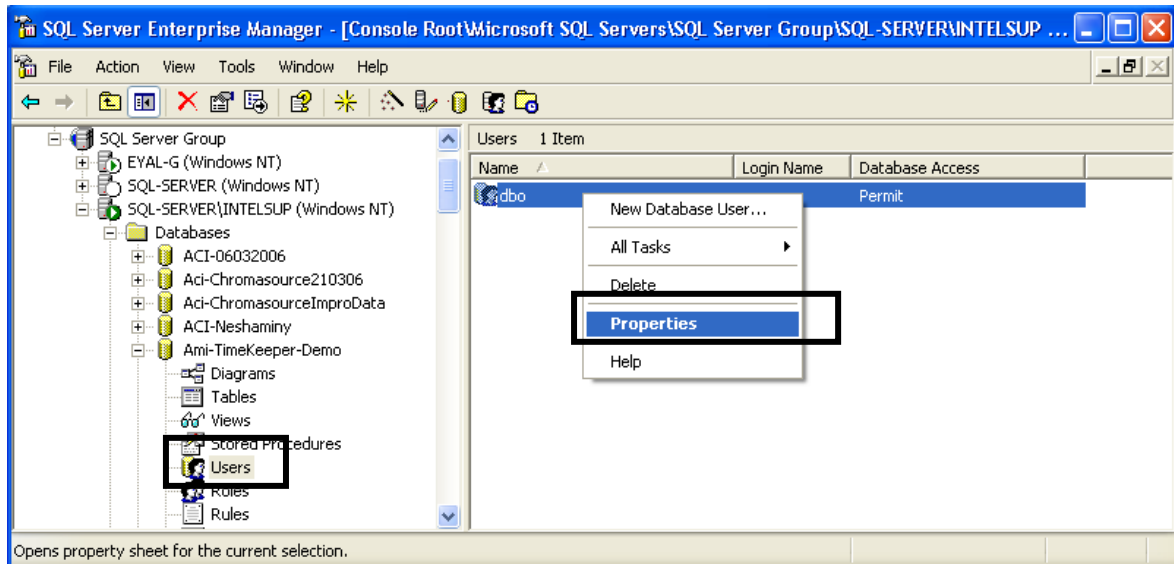


- b. In addition check that the **SQL_PARAM** field in the IBrowse.INI file has the correct values. Do this by making sure the correct username and password have been encrypted (please see step 10 for more details).

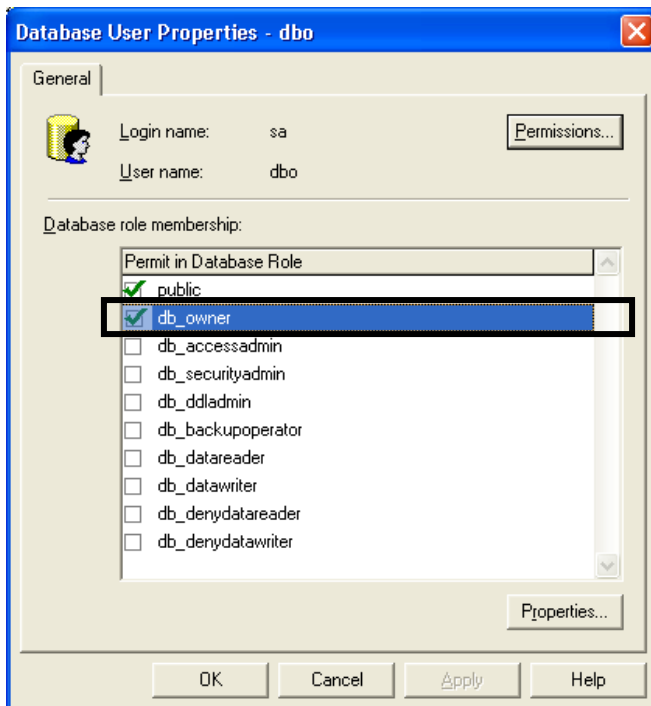
2. "Specified SQL Server not found" " while loading iBrowse web site:

- a. Make sure the user is in "windows authentication" work mode (see trouble shooting - section 1.a in the).

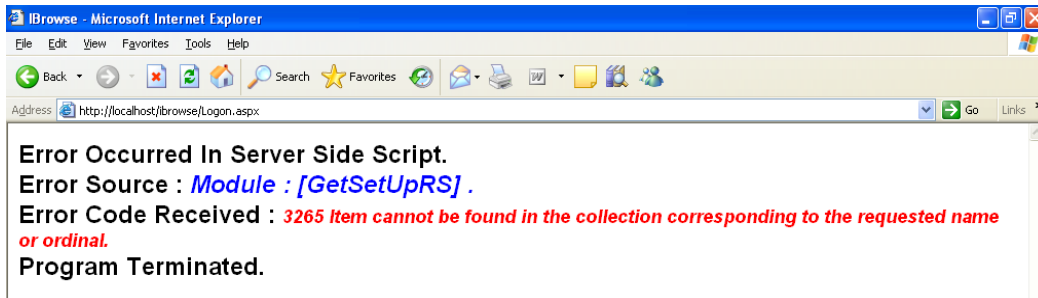
- b. The user is not defined in MS-SQL database as **DB_OWNER**. Open the Enterprise Manager, open the TK DB, open the Users and go into the user's properties:



Make sure **db_owner** is checked:

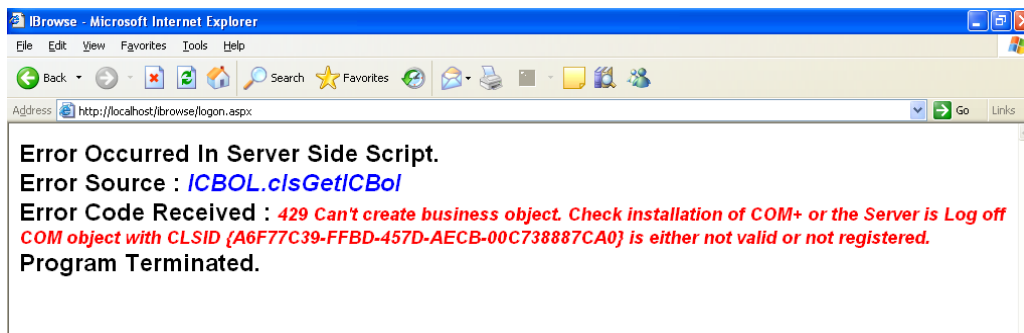


3. When the iBrowse is loaded or being operated, Error 326 is received



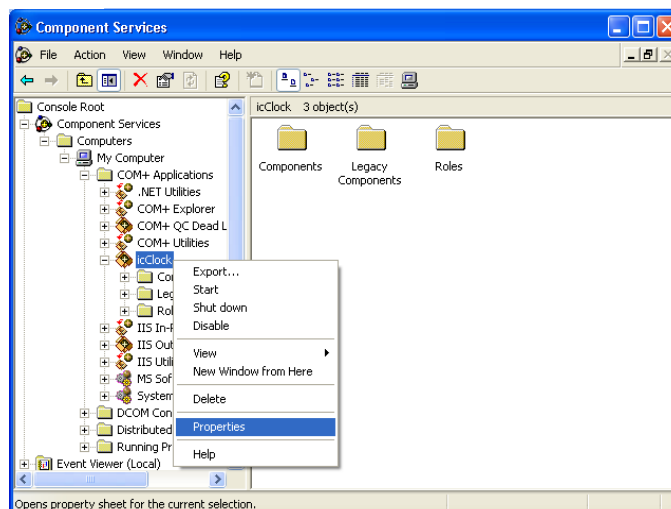
The above Error message normally indicates that one of the tables is out-of-date (in most cases the above refers to CNFPROF or to out-of-date STORED PROCEDURES. Resolution: run Compare DB.

4. When the iBrowse is loaded, Error 429 is received

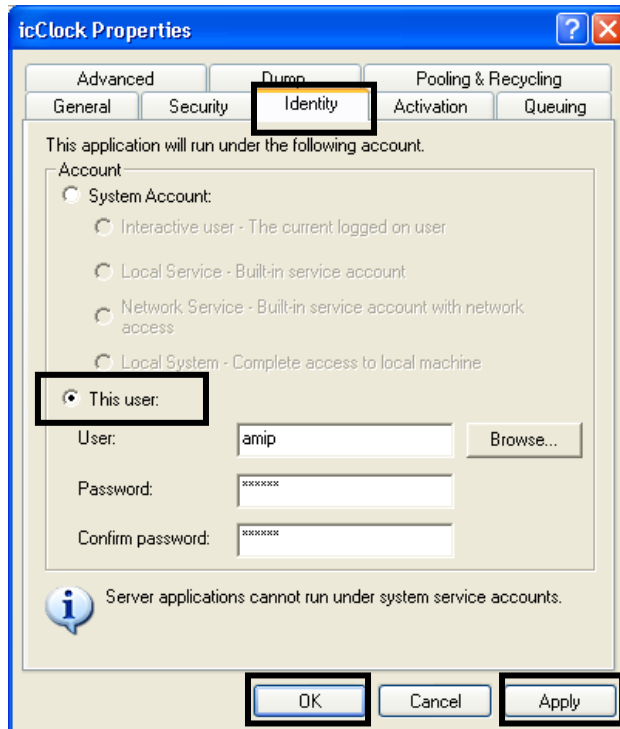


The above Error message normally indicates one of two:

- a. The COM objects are not installed. Resolution: COM Objects need to be installed.
- b. The server is logged off. Resolution: An Identity needs to be defined to a permanent user as follows:
 - i. Open the component services, right-click on icClock and chose Properties.



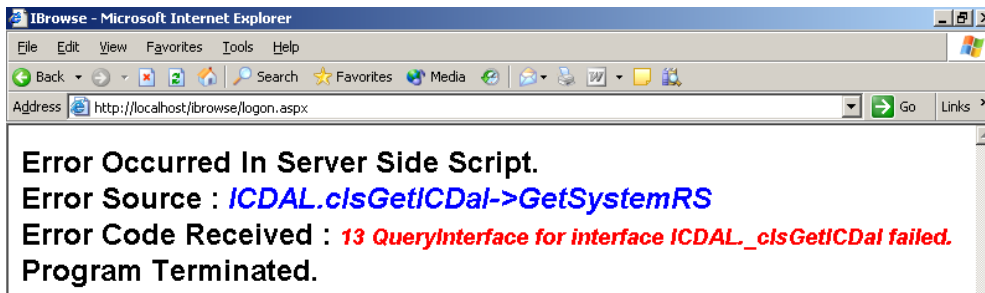
- ii. Click on the Identity tab, chose "This User", enter a valid username and password defined on the server or on the network. The TK COM objects will be loaded on the server using this user's privileges. When done click Apply and OK.



Note: This user needs to have read & write access to the TK programs directory (e.g. C:\TKSQL). This user is a regular user and not an Administrator or a Privileged user.

The access to the application directory (TK programs) must be set as UNC (instead of "traditional" drive mapping, as drive mapping does not work when the server is in log-off mode).

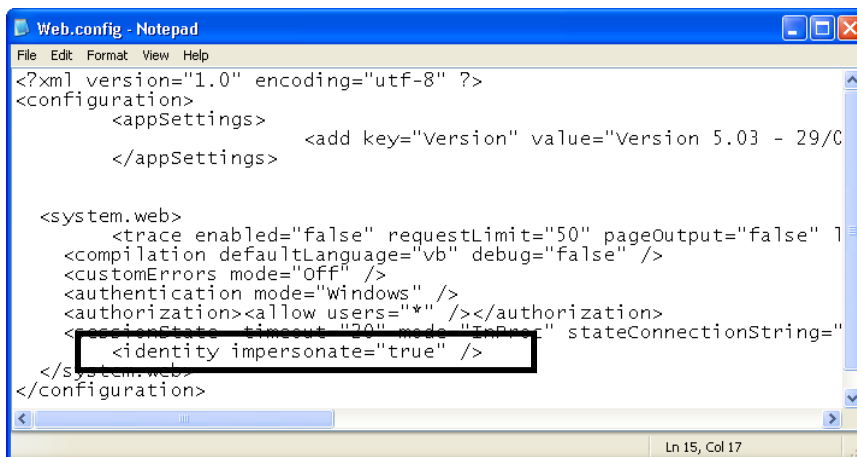
5. When the iBrowse is loaded, Error 13 is received



The above Error message normally indicates a security problem running the COM Objects and the IIS.

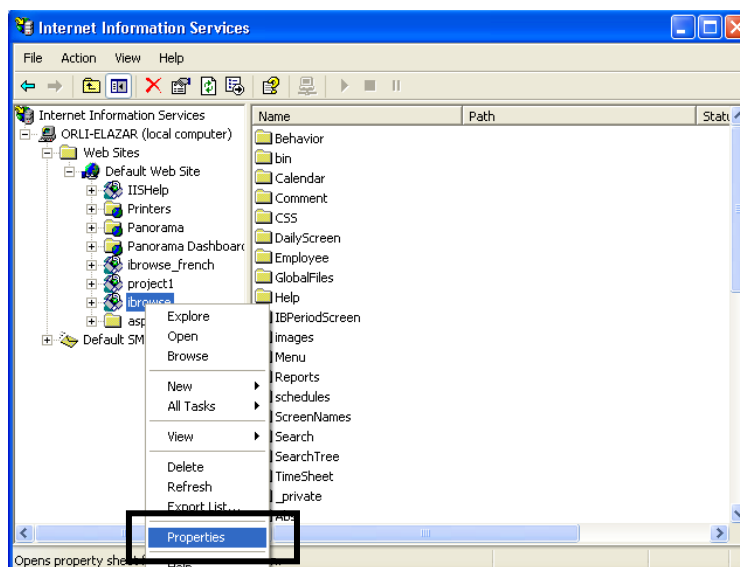
Resolution:

- a. The `<identity impersonate="true" />` needs to be added to the web.config file (located under `C:\iBrowse\ibrw_web`) as follows:

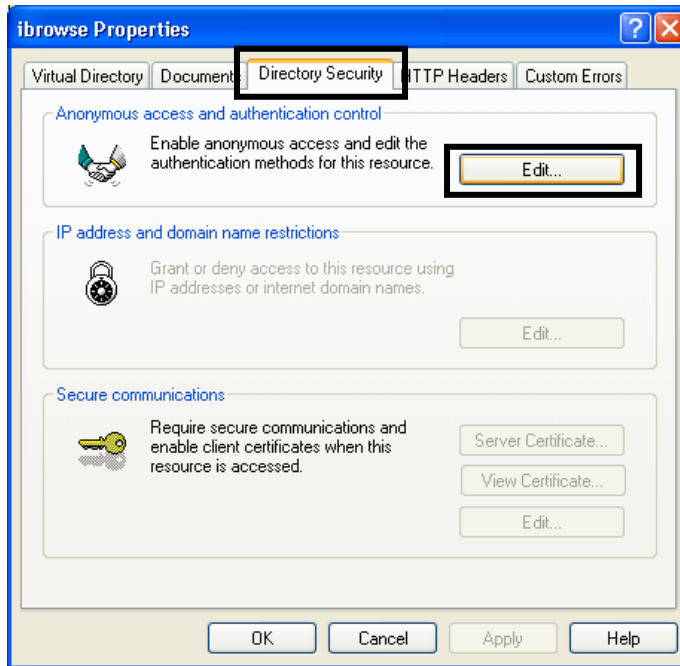


- b. If the problem persists, open IIS and set iBrowse to enable Anonymous access:

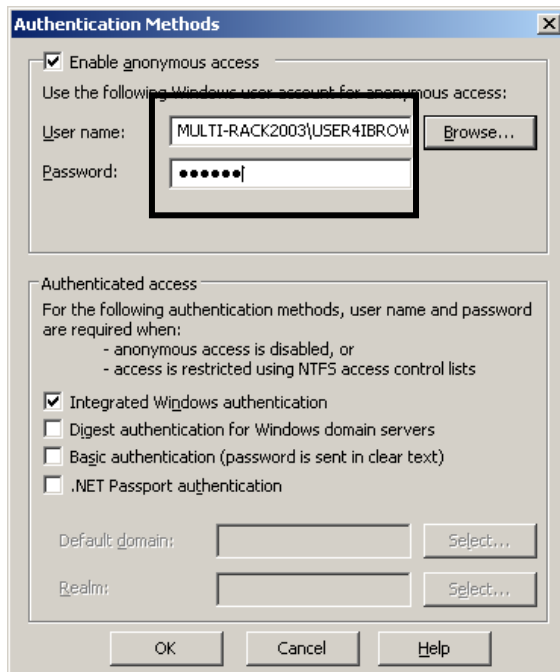
1. right-click on iBrowse and chose properties.



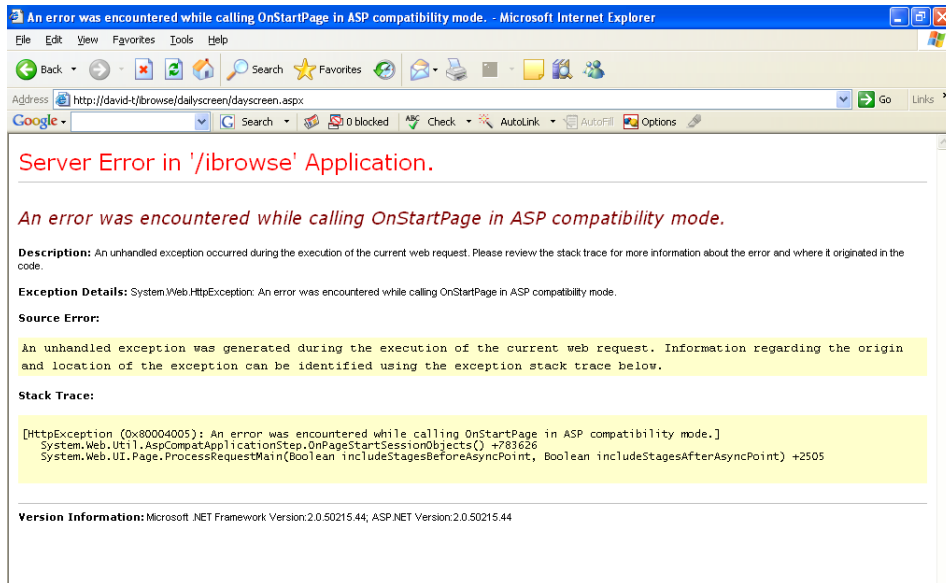
2. Click the Directory Security tab and then click Edit.



3. Specify the user for running the COM objects



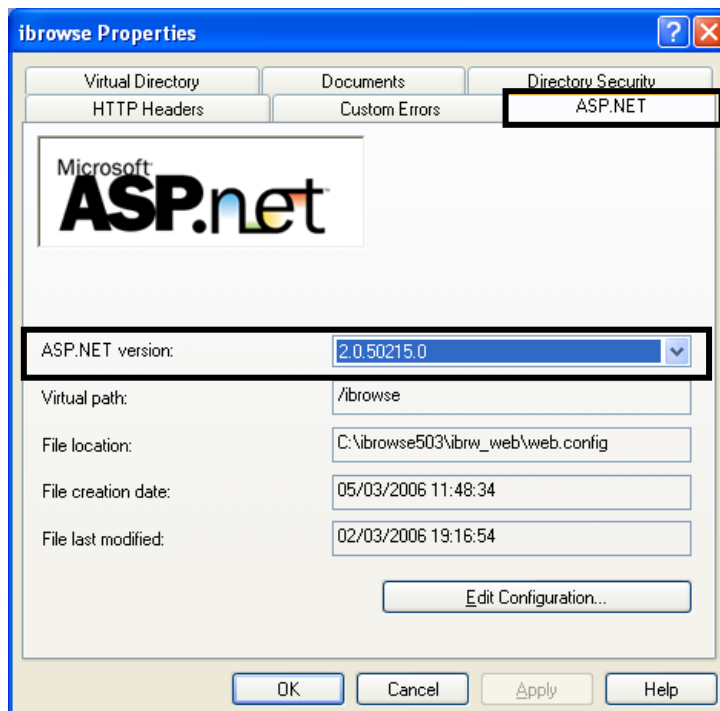
6. When the iBrowse is loaded, the following error is received:



The above Error message normally indicates that the iBrowse web site is defined as ASP.NET version=2.

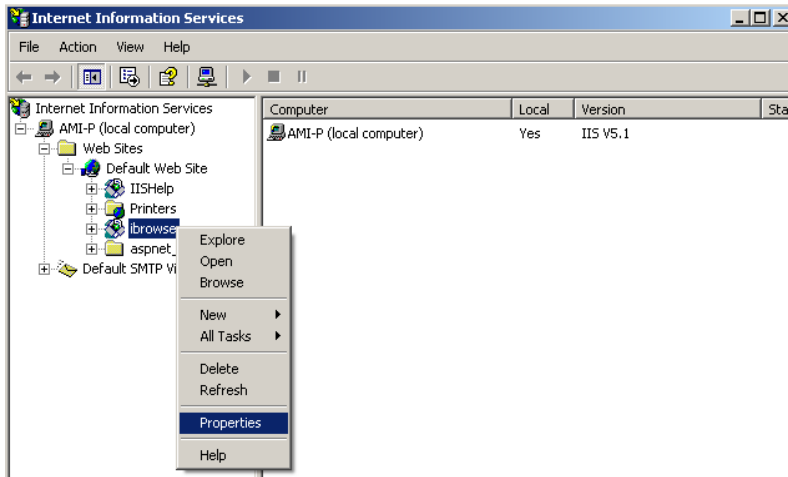
Resolution:

- Opening the IIS, right-clicking on iBrowse and choosing properties.*
- Clicking on the ASP.NET tab*
- Changing the ASP.NET Version to 1.*

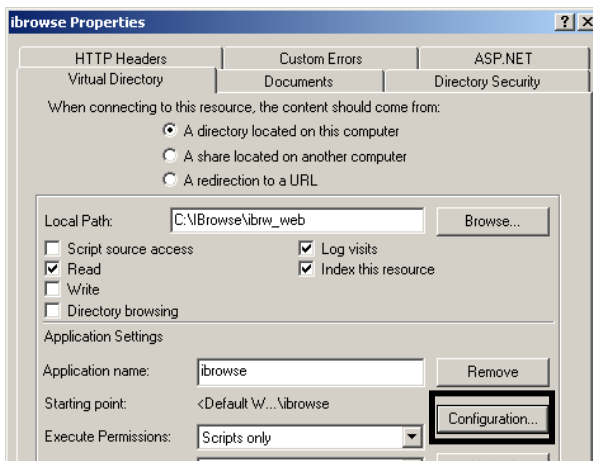


7. iBrowse is not loaded (.NET Framework was not properly installed)

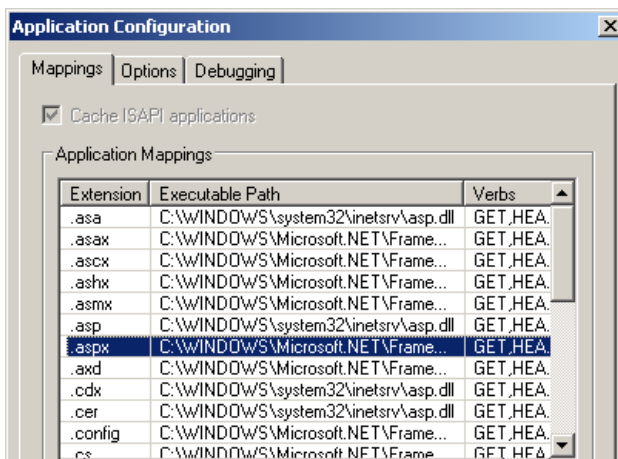
Open the IIS, right-click on the iBrowse virtual directory and choose properties.



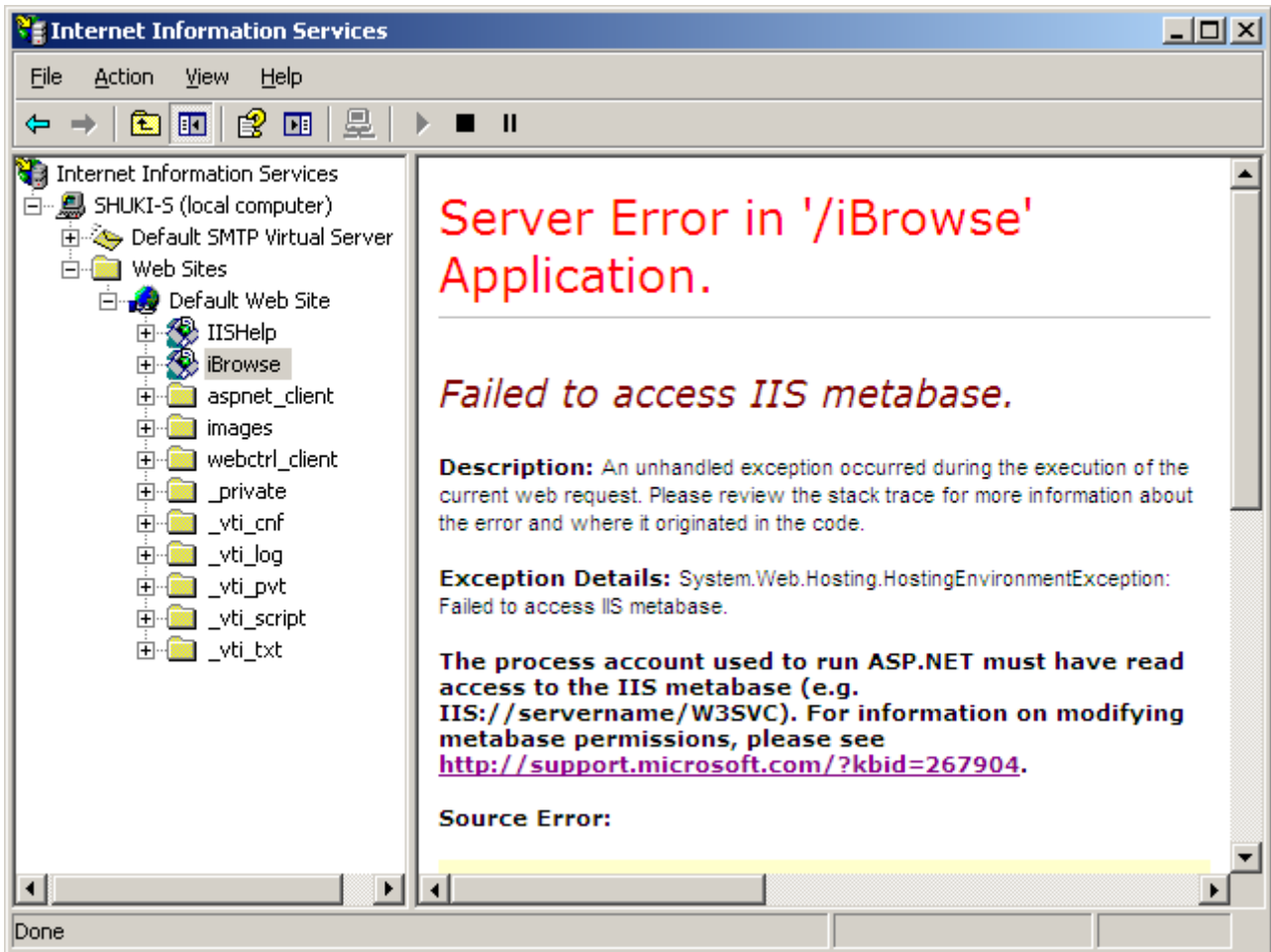
Click on the Configuration button



Make sure the ".aspx" extension is available.



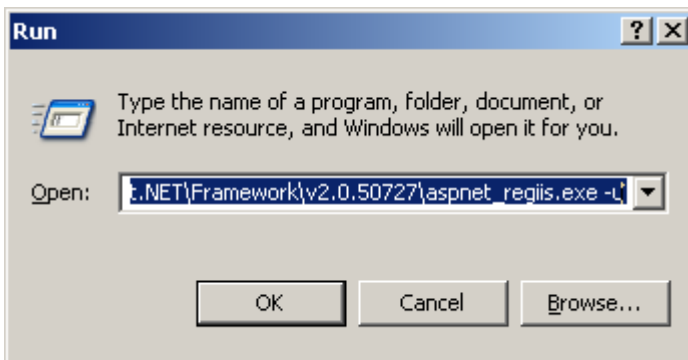
8. After reinstalling Windows, the following error message shows.



Resolution:

A. Remove the ASP by running the following from your command line:

C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727\aspnet_regiis.exe -u



B. Reinstall the ASP by running the following from your command line:

C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727\aspnet_regiis.exe -i



9. When trying to access iBrowse after upgrade the following error is shown:

Error Occurred In Server Side Script.

Error Source : *Module : [GetTcFileRS] .*

Error Code Received : *3707 Cannot change the ActiveConnection property of a Recordset object which has a Command object as its source.*

Program Terminated.

Resolution:

Make sure when running upgrade to run all the SQL scripts within the SQL installation set.
for example,

IBROWSE INSTALL VERSION 8.06_20080702\SQL Database\SQL

Make sure that the store_procedure script (stored_proc.sql) is run and that whatever script found in the Upgrade subfolder is also executed.

For example, under IBROWSE INSTALL VERSION 8.06_20080702\SQL Database\SQL\UPGRADE

up_cnfprof_08062008.sql is executed.

10. When trying to access iBrowse after a new installation (or upgrade) the following error shows:

Error Occurred In Server Side Script.

Error Source : *ICDAL.clsGetICDal->GetSystemRS*

Error Code Received : *3105 Multiple-step operation generated errors. Check each status value.*

Program Terminated.

Resolution:

This is a known issue caused when a report defined for the user's profile has a title longer than 40 characters. The error is generated with respect to the CNFPROF and is fixed for iBrowse version 8.08.01 and later. For later versions the maximum length for a report title is set to 80 characters.

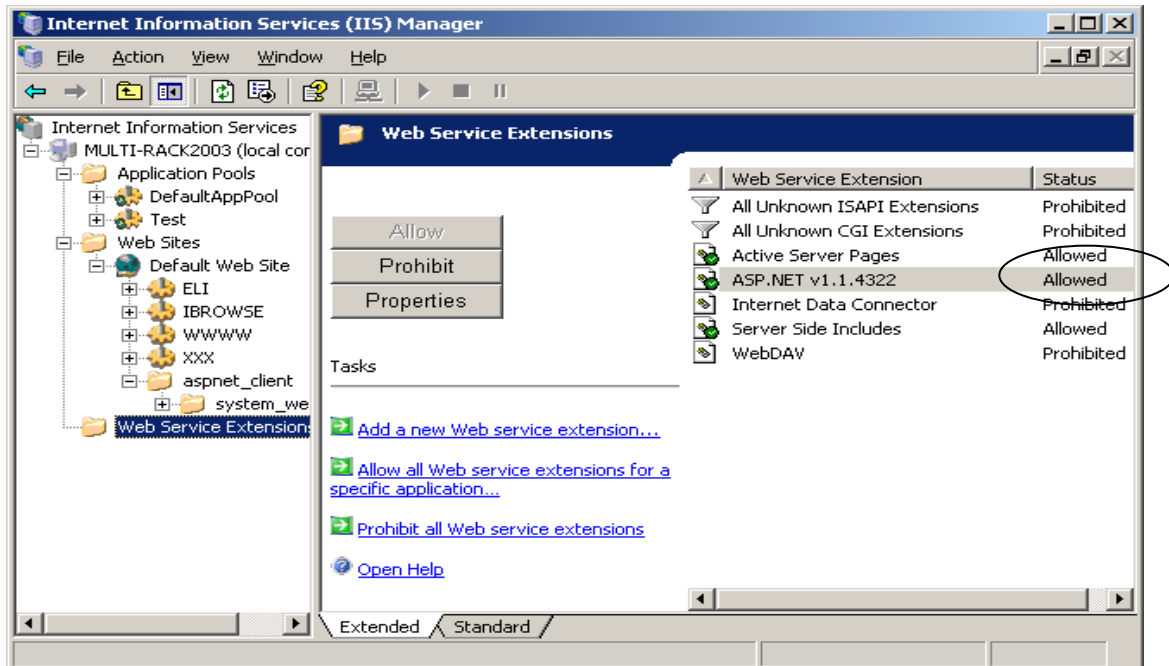
Appendix: iBrowse Installation - WIN2003 Procedure

Setting up iBrowse – Windows 2003™

Additional instructions for iBrowse installation on 2003 server

1. IIS Parameters

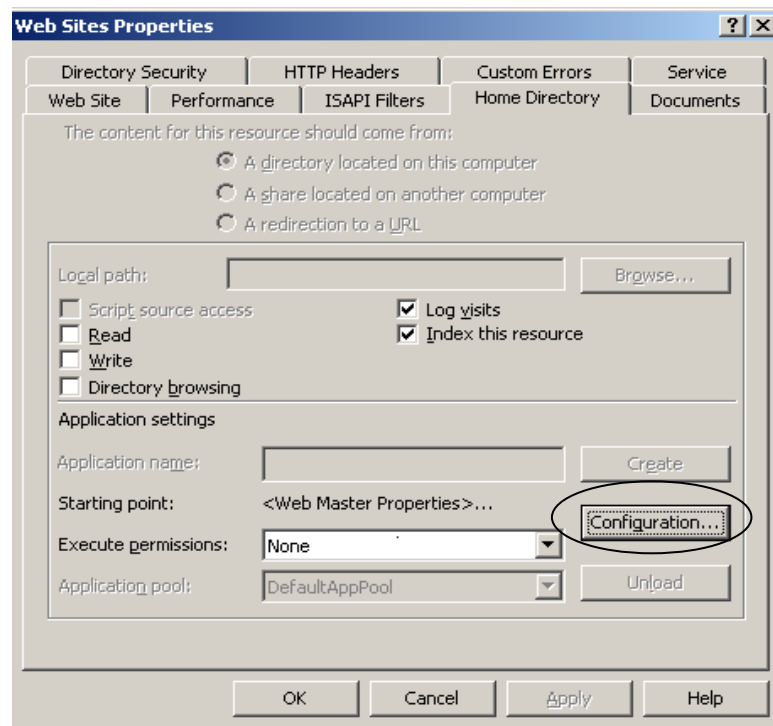
- 1.1. Ensure that **Active Server Pages and ASP.NET v1.1.4322** under **Web Services Extension** defined as **allowed**.



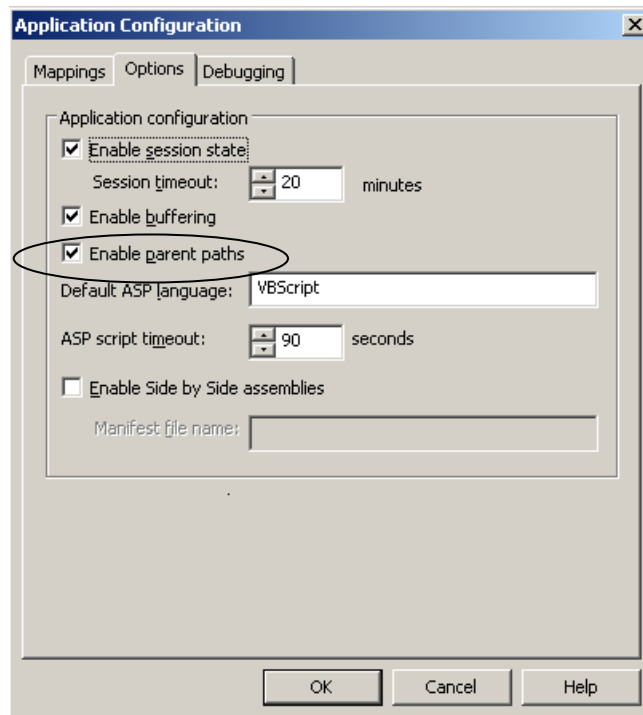
Note:

These components should be installed on the server by the IT department.

1.2. Web Sites Properties -> Home Directory -> Configuration

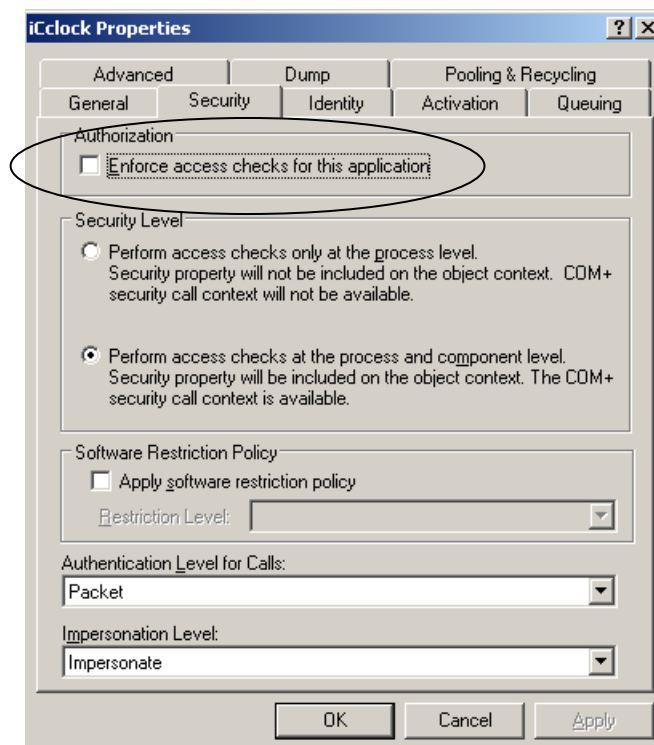


Press on **"Option"** and ensure **Enable parent path** is checked.



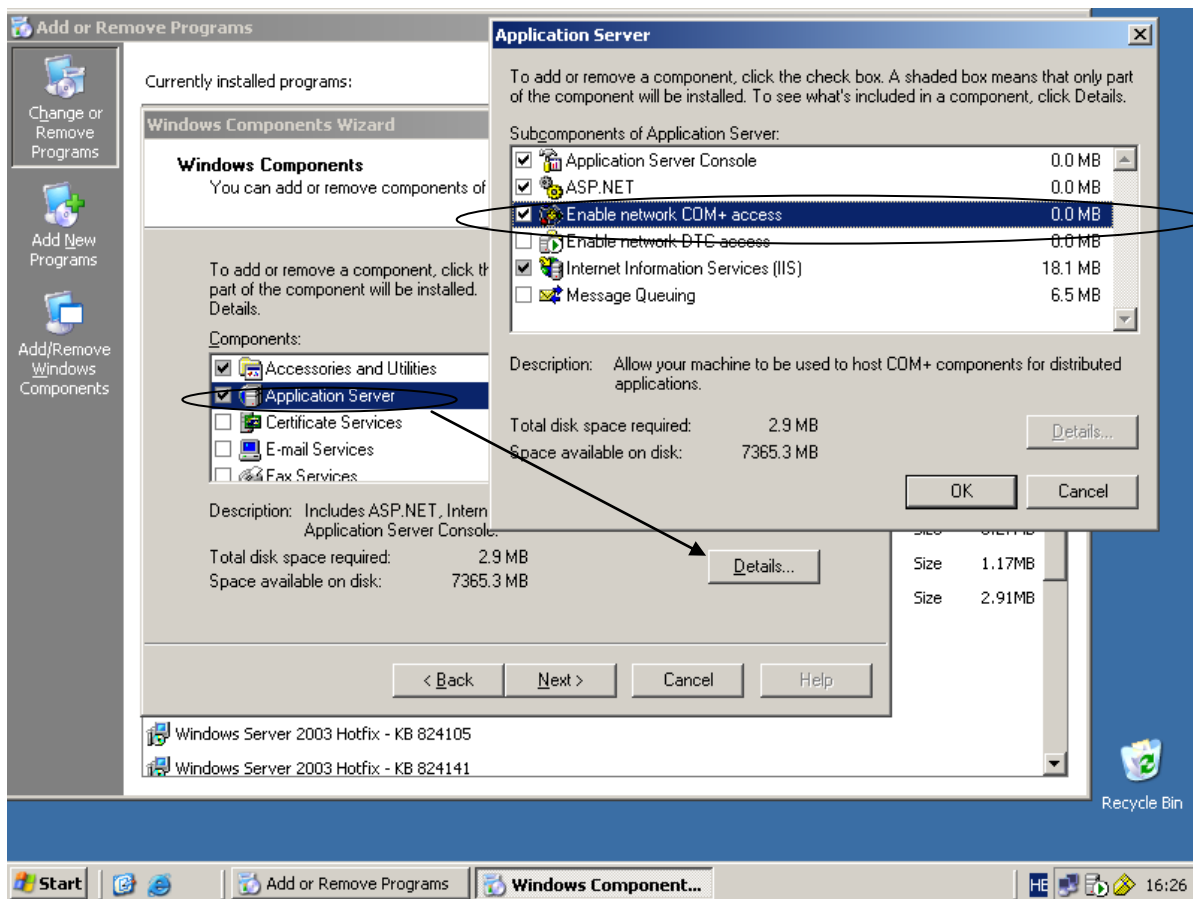
2. COM+ Parameters:

Ensure that the parameter **"Enforce access checks for this application"** under **"IcClock Properties , Security"** is not checked.



3. Windows Components:

When working with RPC configuration (separates the SQL server from the COM server), ensure that the following items are checked:

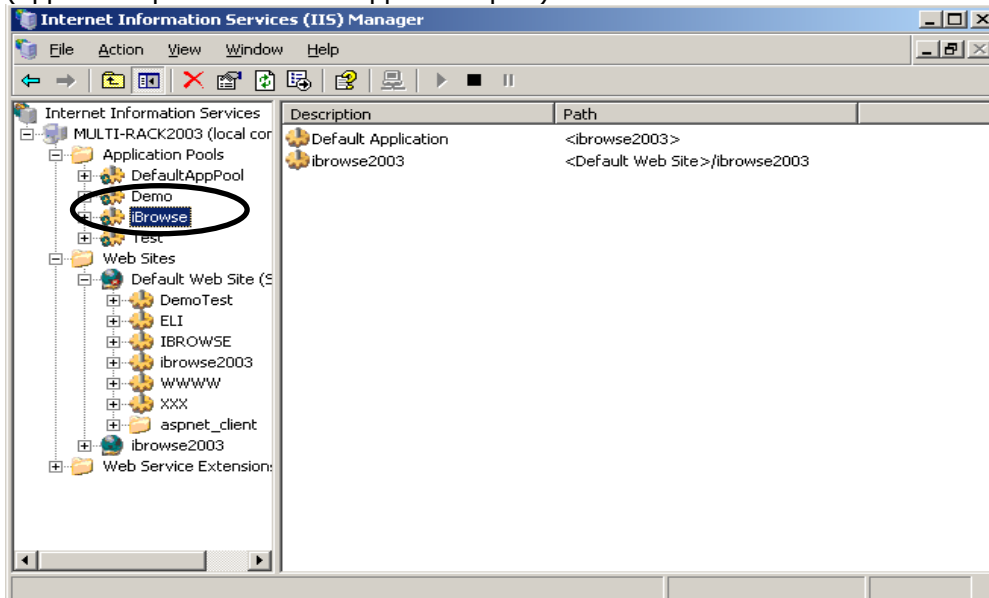


4. Install IBrowse definition on server 2003:

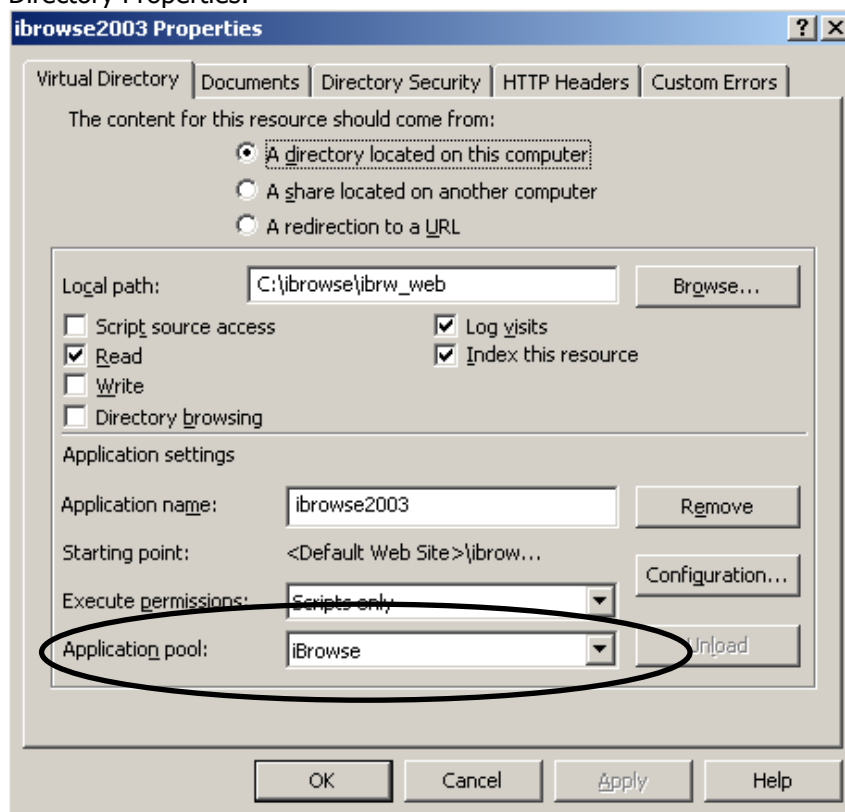
In server 2003 you can define separate **Application pool** for each site.

Build new Application pool, and name it IBrowse.

(Application pools -> new -> Application pool).



After building the Application pool you can add this parameter in Virtual Directory Properties:



Appendix: **Setting up iBrowse Login Based on Active Directory**

Preface

This configuration enables to skip the iBrowse login page and log into iBrowse automatically by identifying the current network user or by Active Directory identification.

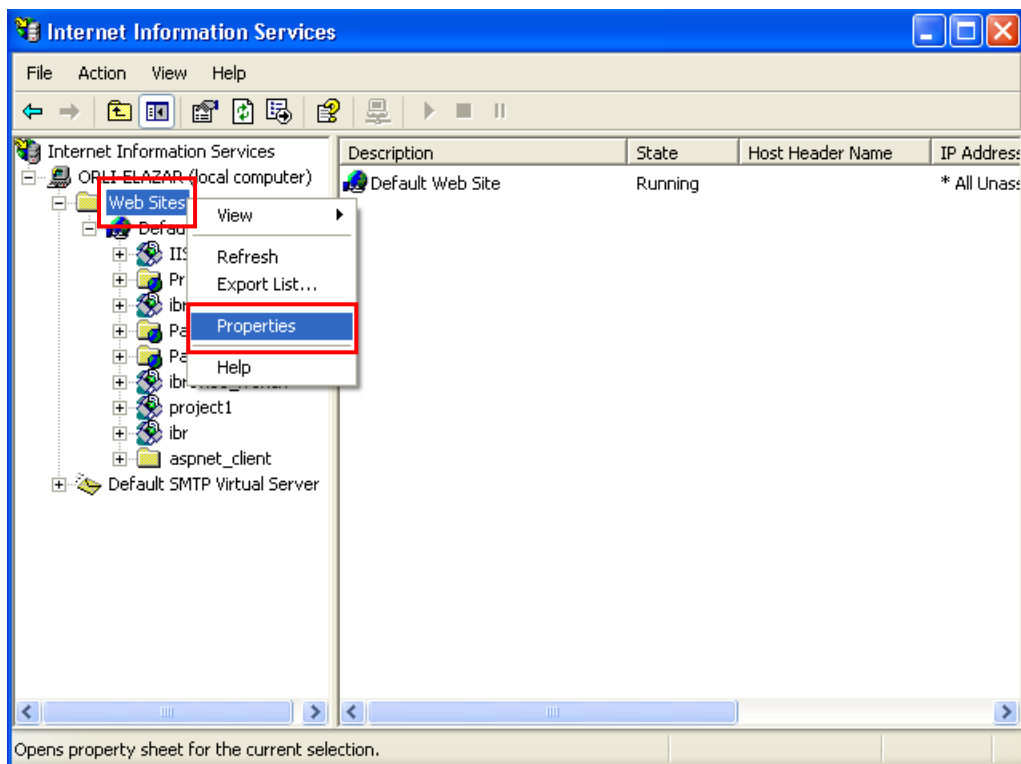
Environment: TKSQL and TK2000

Required program files: iBrowse version 5.03 and above.

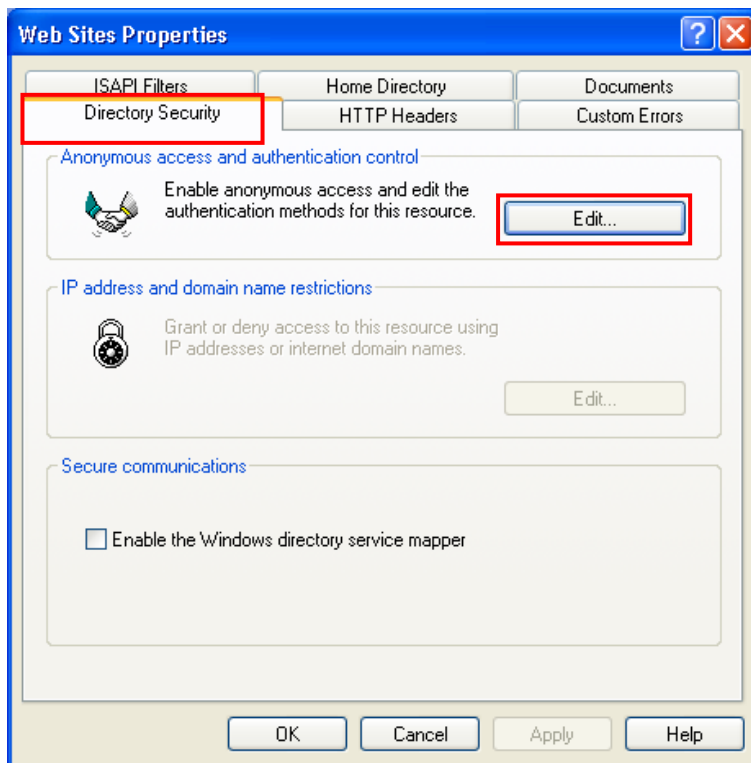
Installation: Defining the IBROWSE.INI file and the IIS.

Defining the IIS

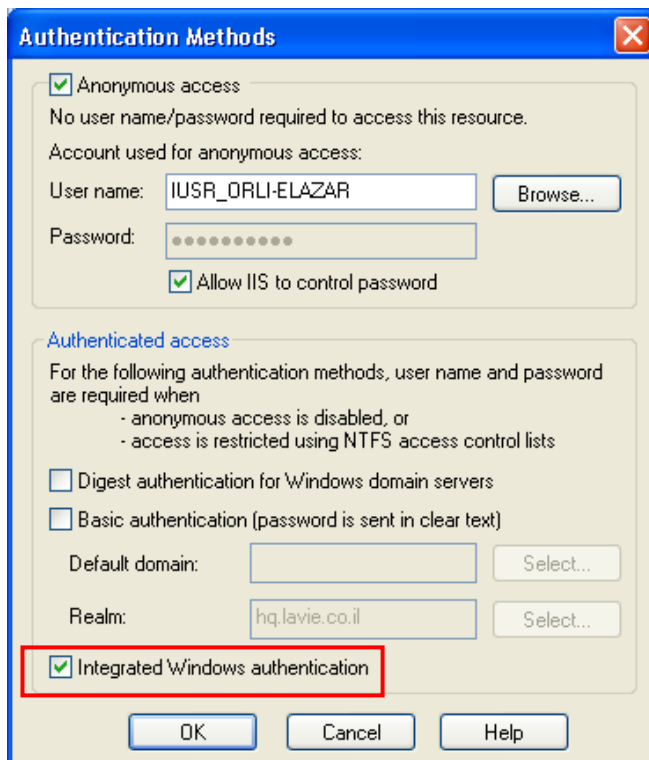
1. Open the IIS, Right click on Web Sites and choose Properties.



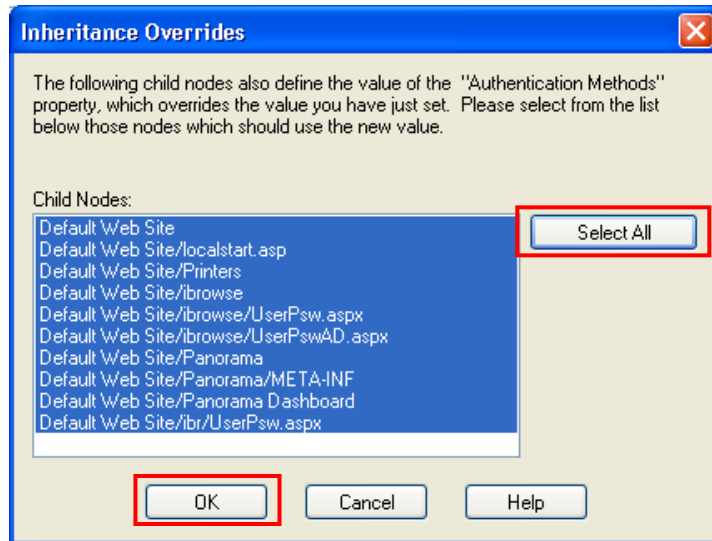
2. Choose the Directory Security tab and click on Edit.



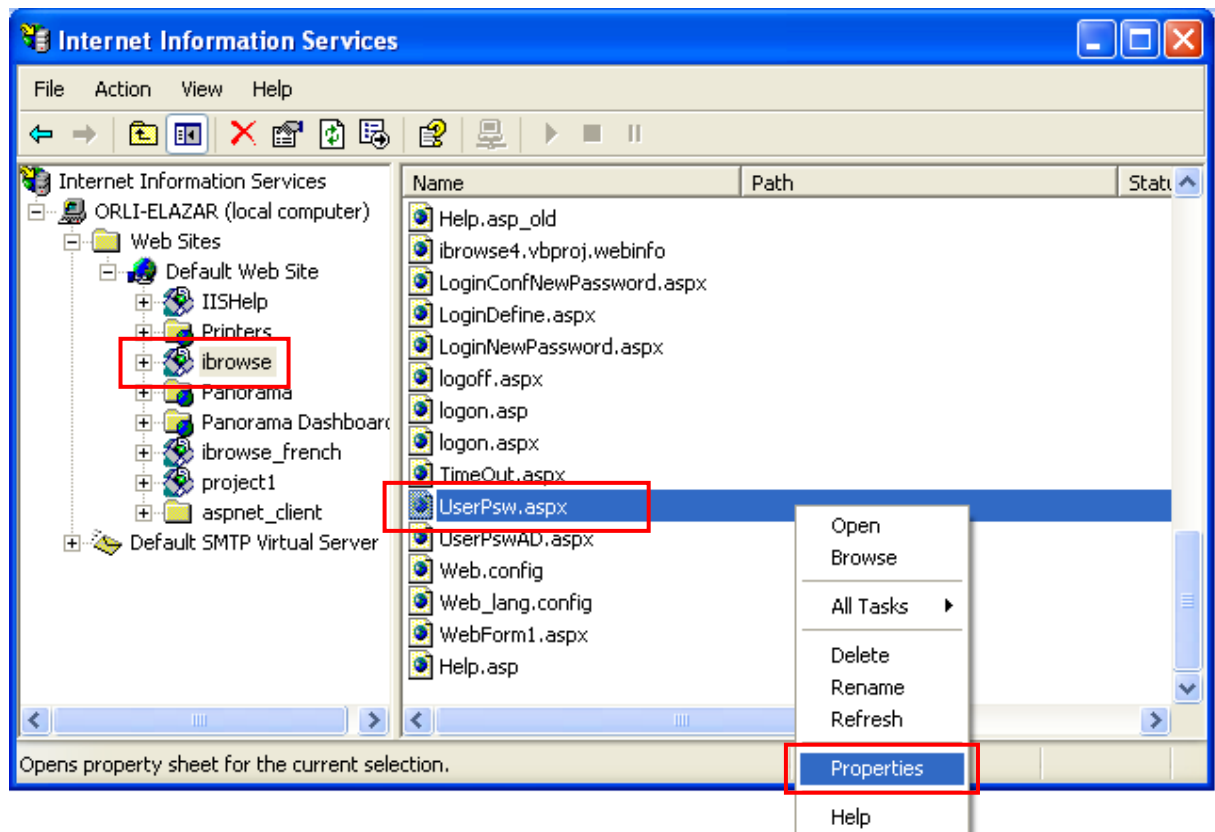
3. Check the Integrated Windows Authentication and click OK.



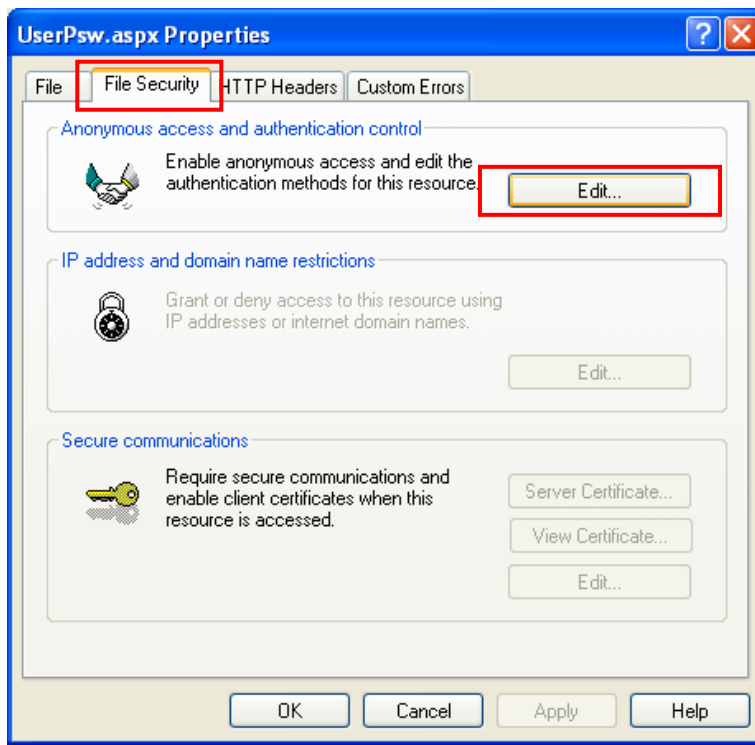
4. Select all nodes to be affected and click OK.



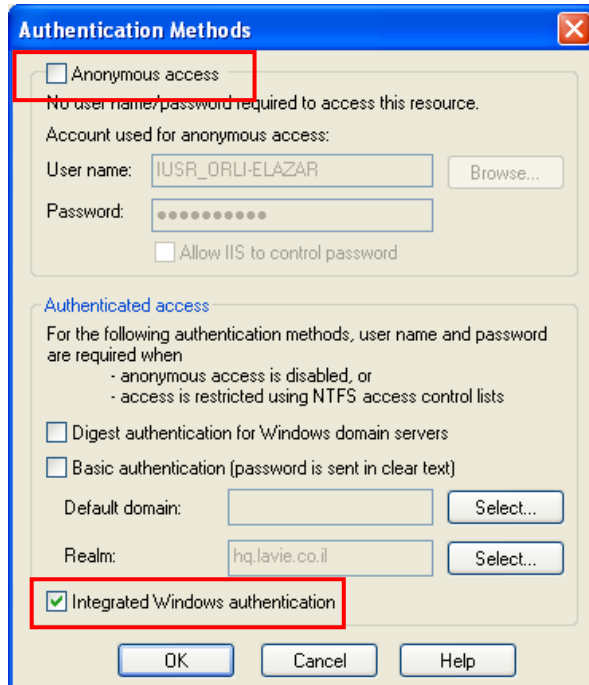
5. Open the IIS, open the IBrowse directory, right click on the UserPsw.aspx file and choose properties.



6. Open the "File Security" tab and click on Edit.



7. Uncheck the anonymous user and make sure Integrated Windows Authentication is checked.



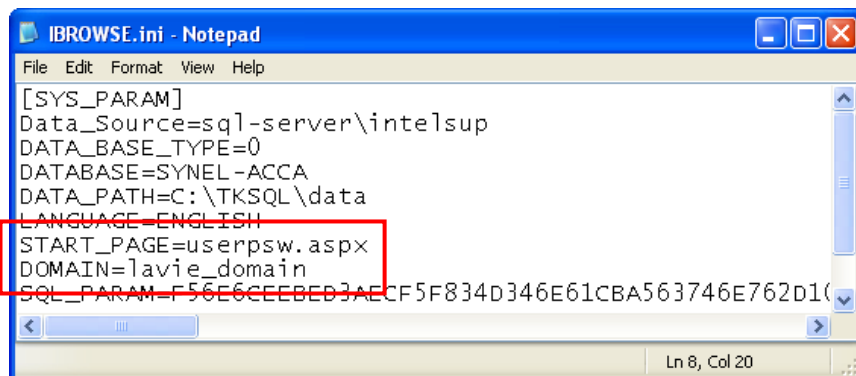
8. Allow reading permissions to all ASP pages in the IBrowse directory (IBrowse \ IBRW_WEB) for all users.

Defining the IBROWSE.INI file:

The IBROWSE.INI file is located inside the "WINDOWS" folder on the IIS server. The new parameter that Needs to be defined is the "START_PAGE" field. There are two options:

1. User identification by Windows Logon User Name:

- a. Please define: **START_PAGE=userpsw.aspx**
- b. Make sure the TK user name (employee or supervisor) is identical To the Windows Logon User Name
- c. An optional parameter can be added to the IBROWSE.INI: **DOMAIN=[domain_name]** (e.g. DOMAIN=lavie_domain).
If this parameter is defined the system will verify that the user is defined within the domain. If the parameter is left undefined the domain name will not be verified.



```
IBROWSE.ini - Notepad
File Edit Format View Help
[SYS_PARAM]
Data_Source=sql-server\intelsup
DATA_BASE_TYPE=0
DATABASE=SYNEL-ACCA
DATA_PATH=C:\TKSQL\data
LANGUAGE=ENGLISH
START_PAGE=userpsw.aspx
DOMAIN=lavie_domain
SQL_PARAM=F56E6CEEEDB3AECF5F834D346E61CBA563746E762D1(
Ln 8, Col 20
```



Note1: In the FOX version the supervisor user name is limited to 4 characters.



Note2: The FOX user name is case sensitive, the SQL is not.

2. User Identification by Active Directory:

- a. Please define: **START_PAGE=userpswAD.aspx**
- b. Since an employee can be assigned to more than one user,
Please make sure there is no more than one IBrowse supervisor user assigned to each employee.
- c. An optional parameter: **DOMAIN=LDAP://[domain_name]** (e.g. LDAP://lavie_domain)
- d. Active directory definitions must be made by IT department:
 - i. "Windows User Name" will be stored in the "sAMAccountname" field.
 - ii. Employee number (which is the employee number in the TK system as well) will be



stored by the IT department in the "employeeID" field.



Note: An option has been added to define where in the Active Directory to store the user name and the employee number: If the IT administrator chooses to use any other fields in the Active Directory for those two definitions, Please define AD=X,Y inside the IBROWSE.INI, Where X and Y stand for:

X – The name of the field in the Active Directory where to store the user name.

Y - The name of the field in the Active Directory where to store the employee number.

Example: AD=sAMAccountName, physicalDeliveryOfficeName



Note: In case an AD field is not defined, the default fields would be used.