YuniquePLM™

Installation Guide

V5.1.2

April 2014

Yunique Solutions, *A Gerber Technology Company*

12700 Park Central Drive
Suite 1220
Dallas, TX 75251
(469) 554-7701
www.yunique.com

Updated Information

This Installation Guide is updated with each release of the product or when necessary.
This table provides a list of changes.

1. **Windows Server 2012 / 2012R2 and SQL 2012 are now supported in addition to Windows Server 2008R2 and SQL Server 2008R2.**
2. **Windows Server 2003 and 2008 32/64-bit, and SQL Server 2005 and 2008 are no longer supported.**
3. **ImageGlue V6, ABCPDF V4 and .NET Framework V1.1 are no longer required, are no longer available in the Vendor folder, and the option to install via the Setup Utility has been removed.**
4. **ImageGlue V7 and ABCPDF V8 are now required in YuniquePLM™V5.1.**
5. **Ghostscript is no longer used.**
6. **.NET Framework V4.5 must now be installed on Windows Server 2008R2 web servers. .NET Framework V4.5 is already included with Windows Server 2012 / 2012R2.**
7. **Microsoft ReportViewer 2008 and ReportViewer 2010 are required on YuniquePLM™V5.1.x web servers.**
8. **A new Initial Database installation program that accommodates local collation for foreign language versions of Windows Server and SQL Server replaces the manual database restore. The Setup Utility no longer has an installation option.**
9. **Removed ImageGlue V7 installation section for V5.1.2, now integrated in the web application.**
10. **Added support for Windows Server 2012R2, revised Server Configuration section.**
11. **Added notes to the Hardware and System Requirements section.**
12. **Added IIS Web Garden support for V5.1.2.**

Version: 1.00	Date: 3/2013	Description: Initial Release
Version: 1.10	Date: 9/2013	Description: V5.1 update
Version: 1.11	Date:11/2013	Description: Revisions
Version: 1.12	Date: 4/2014	Description: Revisions

YuniquePLM™
Installation Guide

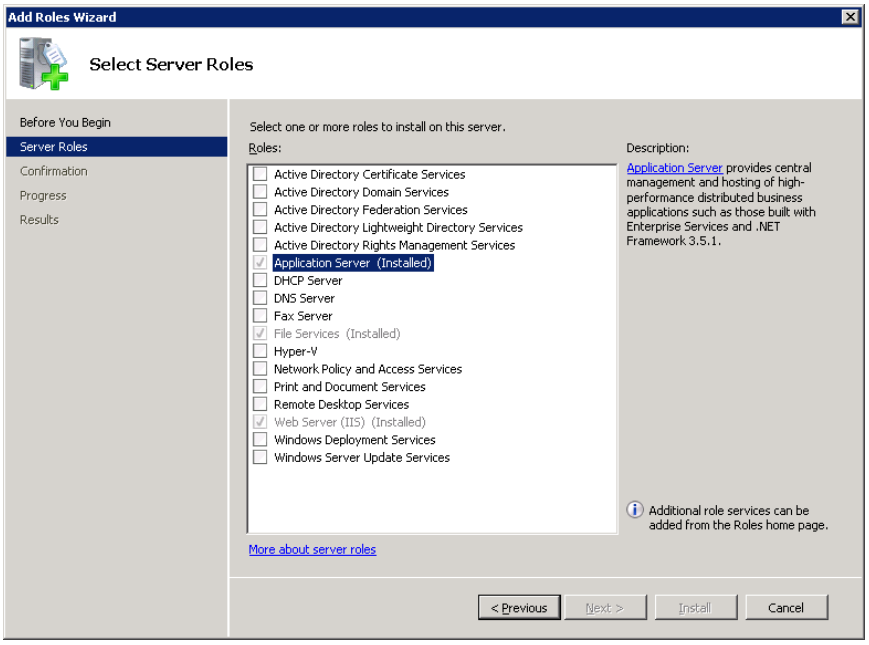
1. Server Configuration

1.1. Windows Server 2008R2 / Windows Server 2012 / 2012R2 configuration

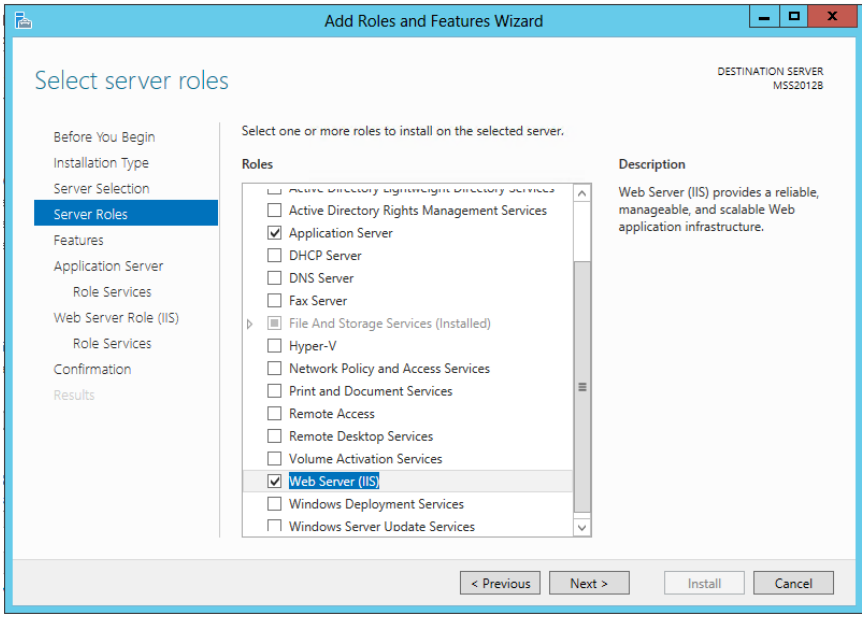
Install all the checked Roles and Features shown in the following screen shots.

1.1.1. Using Windows “Server Manager”, install “Application Server”, “File Services”, and “Web Server” roles.

Server 2008R2

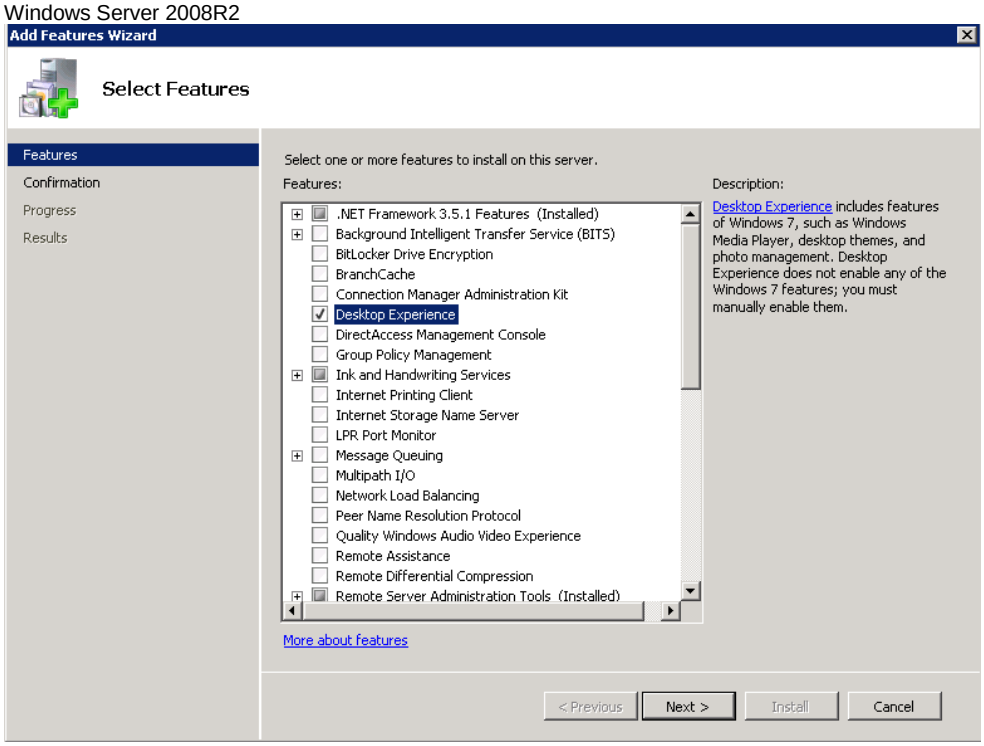


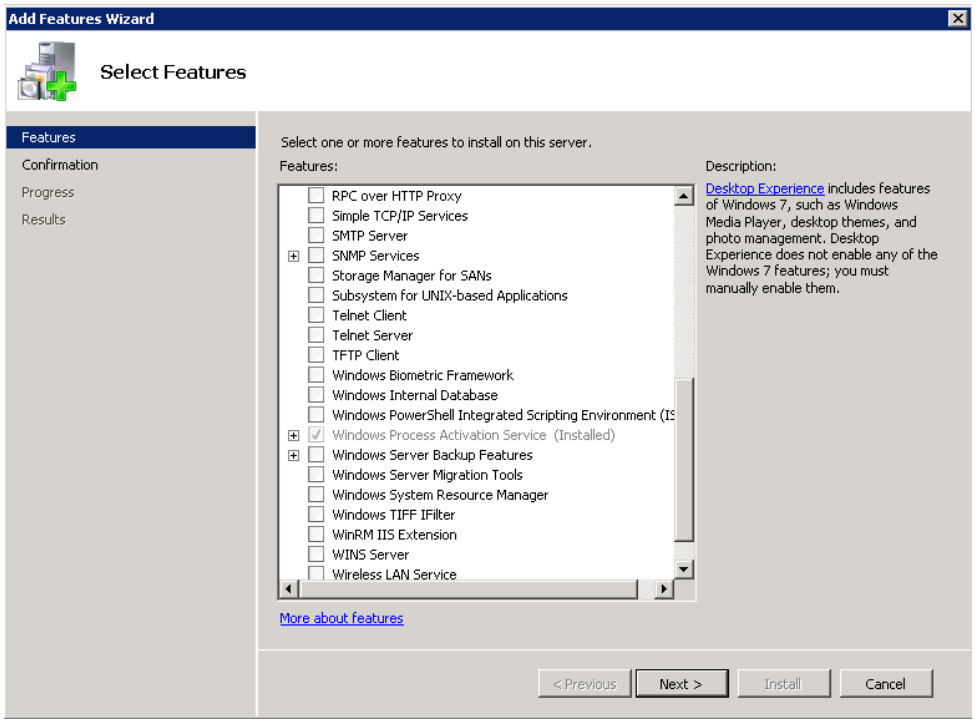
Server 2012 / 2012R2



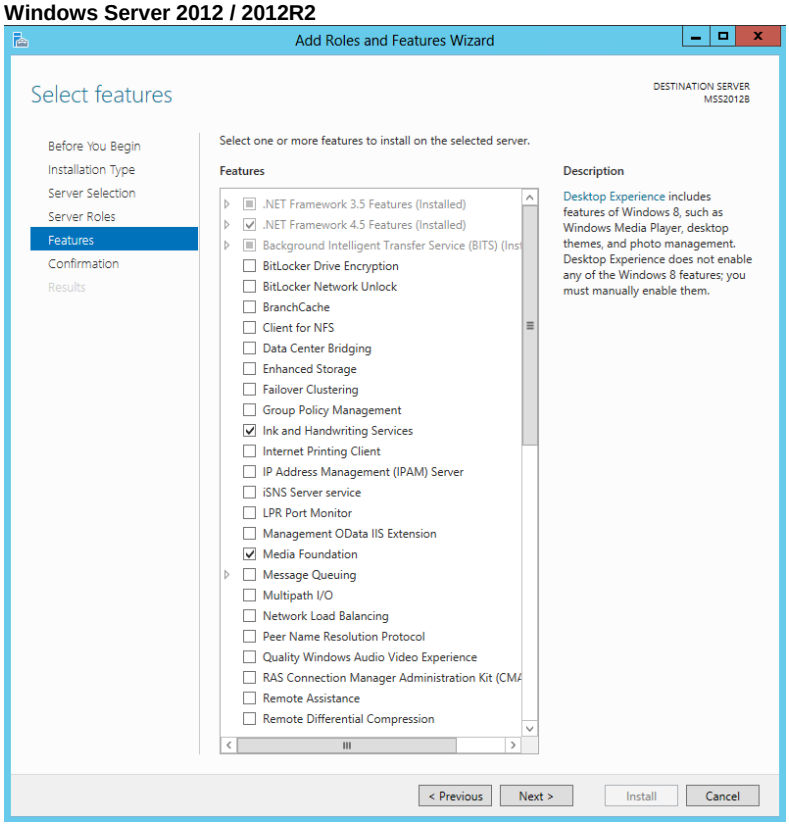
1.1.2. Insure that the following Features are selected.

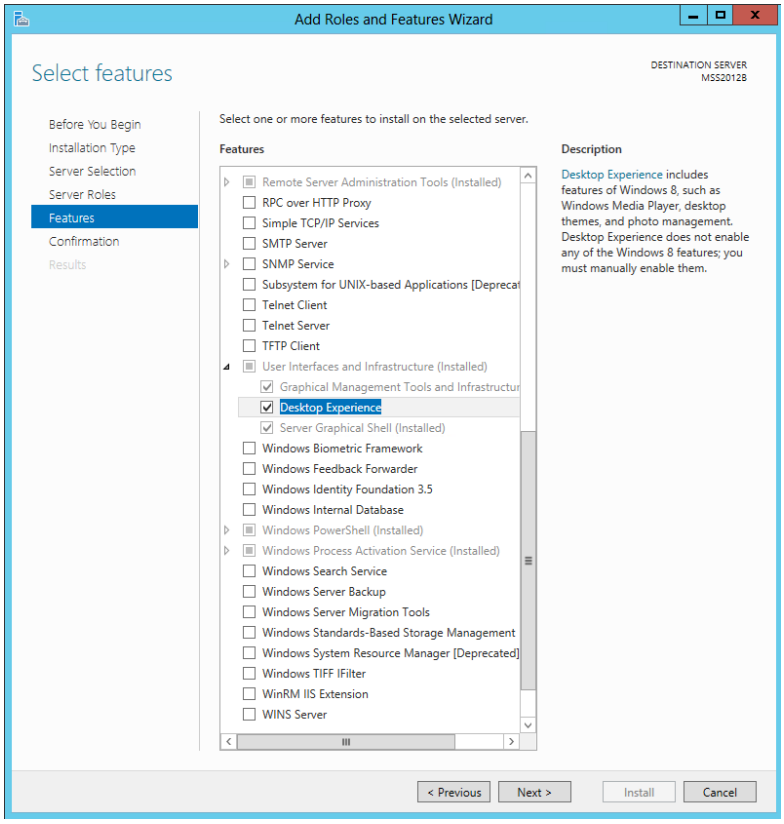
Windows Server 2008R2





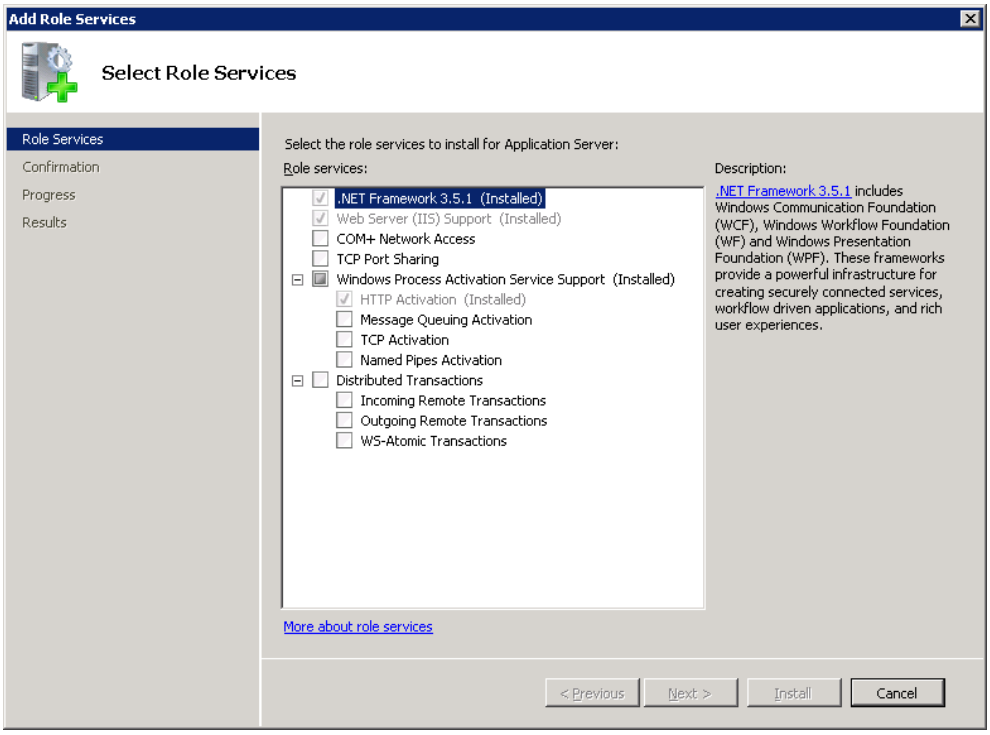
Windows Server 2012 / 2012R2



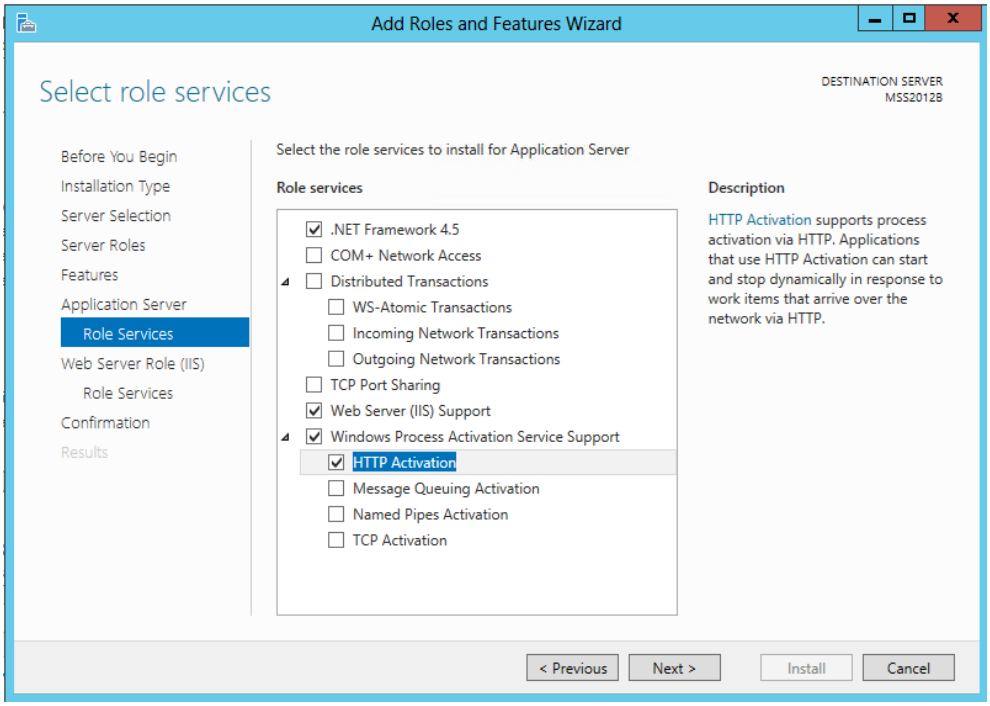


1.1.3. For the “Application Server” role, install “.NET Framework 3.5.1 or 4.5”, “Web Server Support”, and “Windows Process Activation Service Support” role services.

Server 2008R2

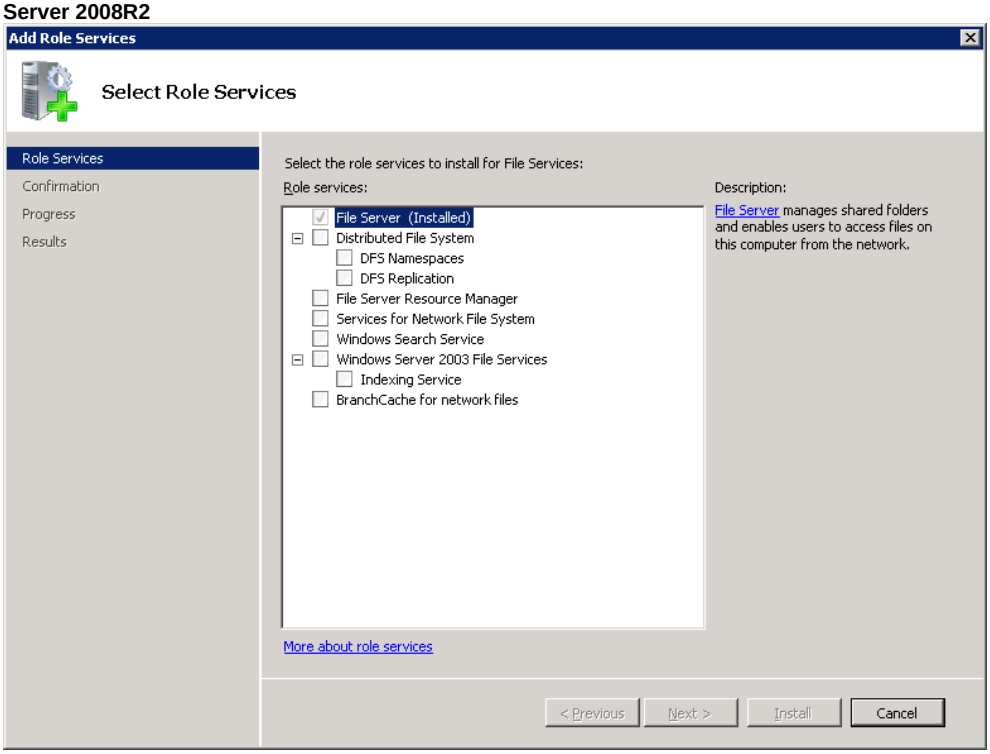


Server 2012 / 2012R2

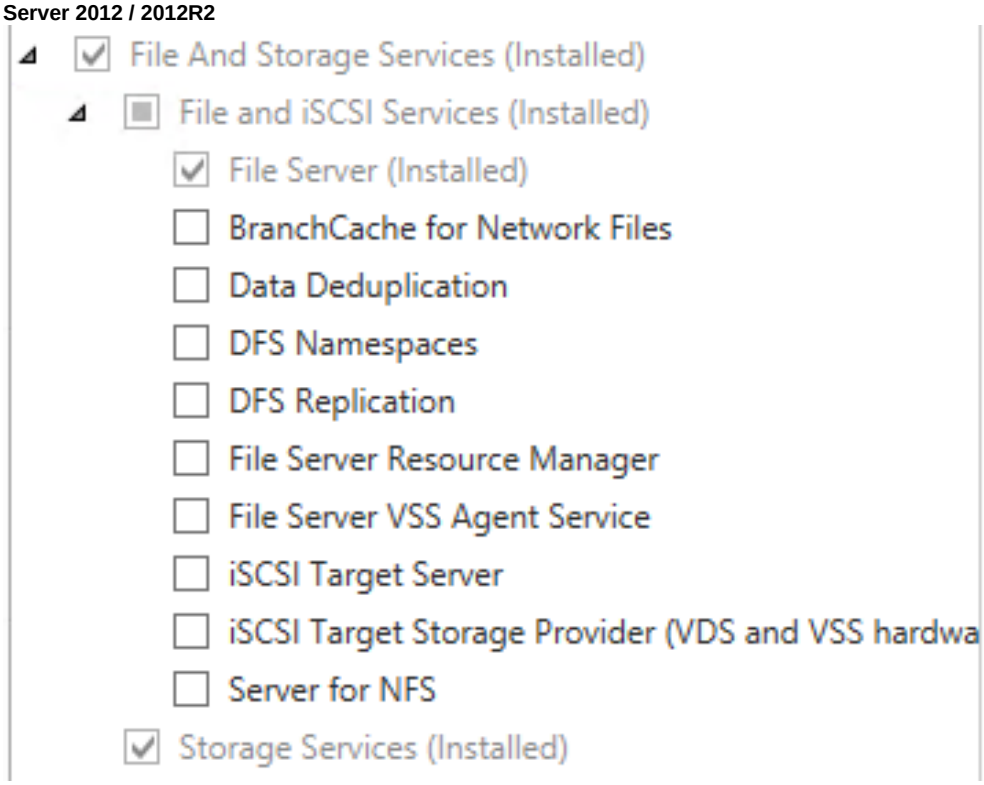


1.1.4. For the “File Server” role, only the “File Server” role service needs to be installed.

Server 2008R2

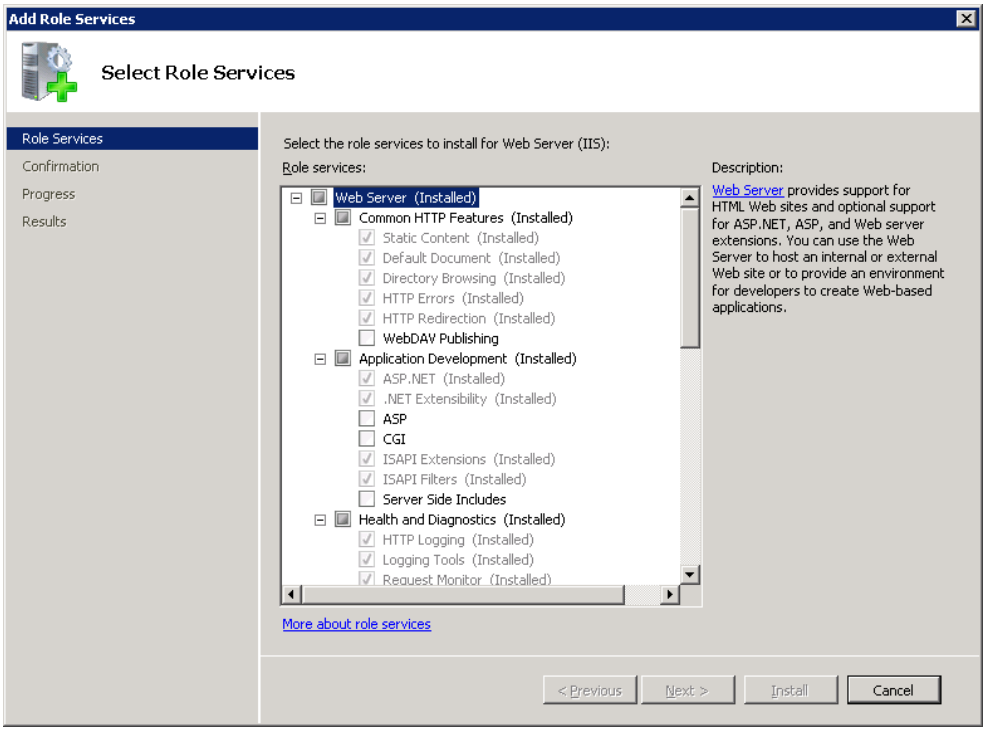


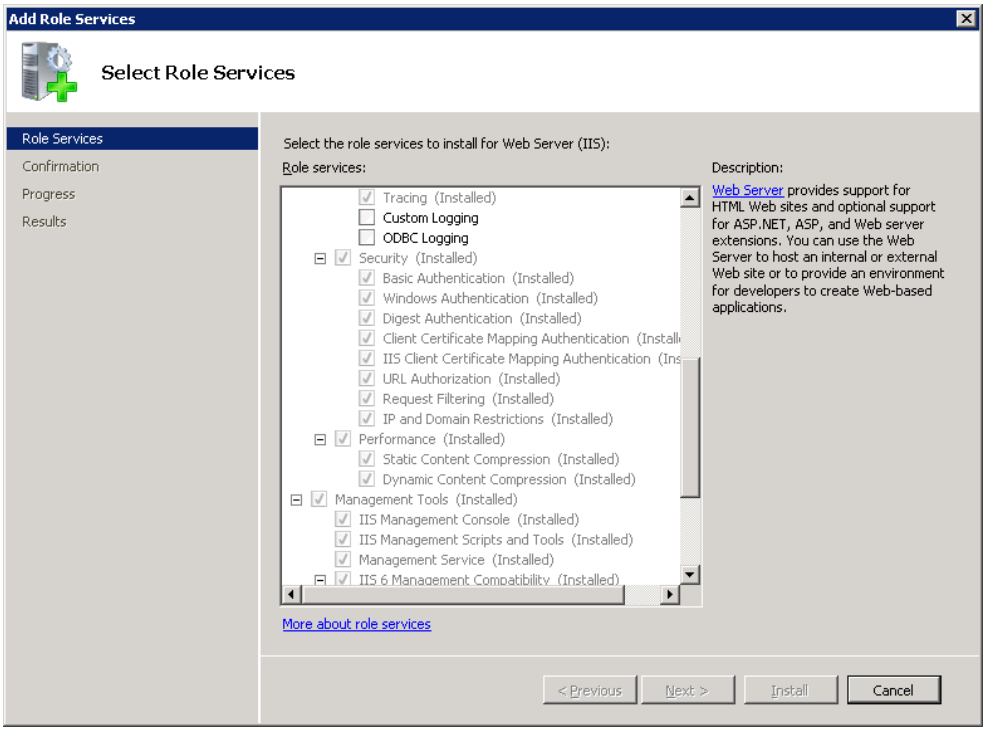
Server 2012 / 2012R2

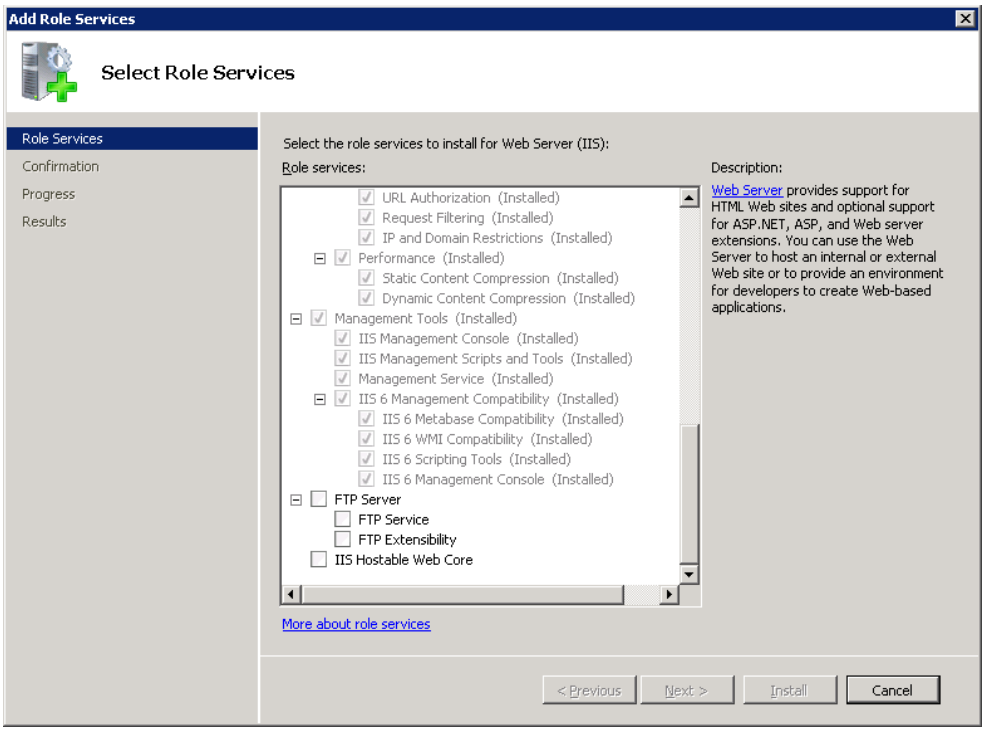


1.1.5. For the “Web Server” role, the following role services should be installed:

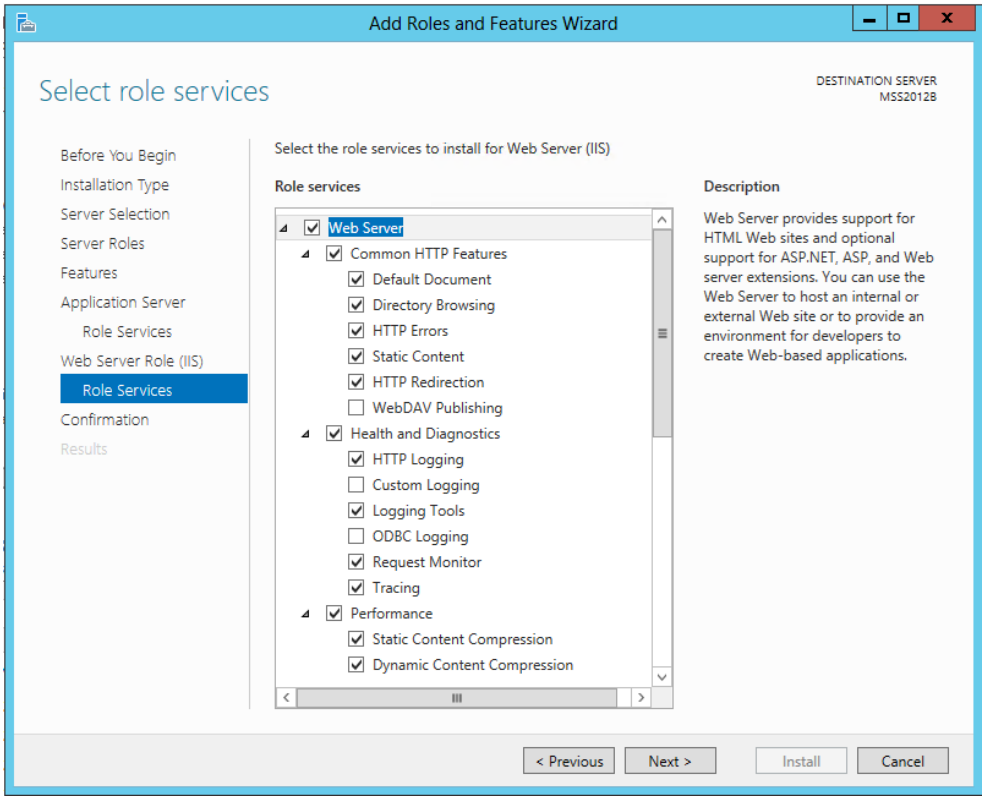
Server 2008R2

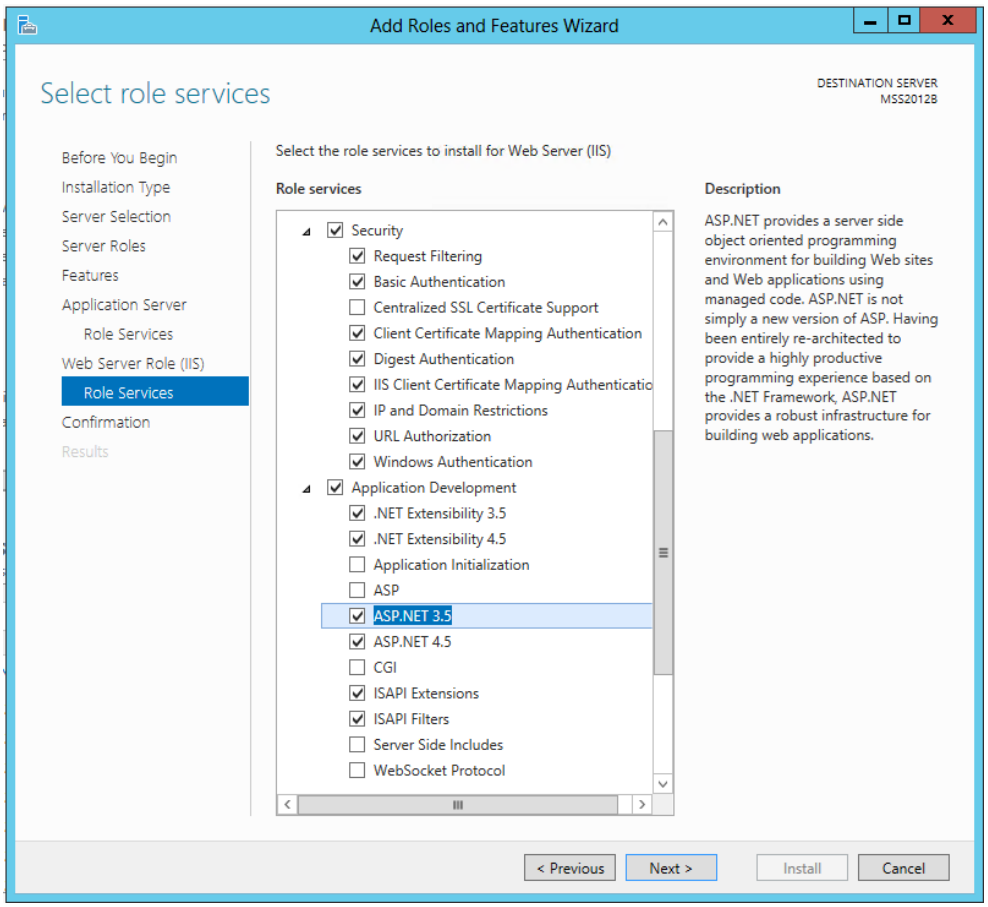


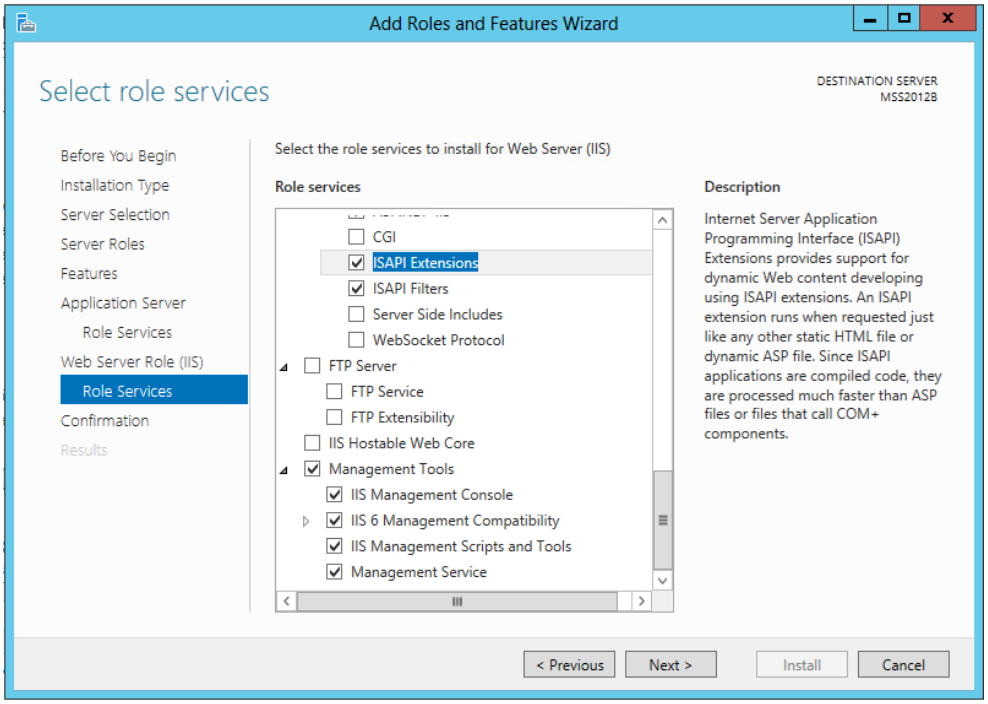




Server 2012 / 2012R2



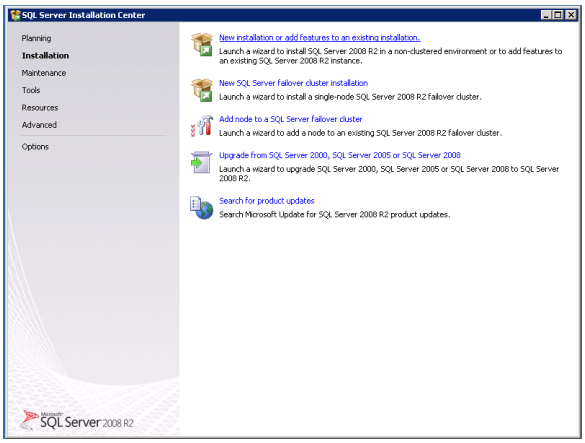


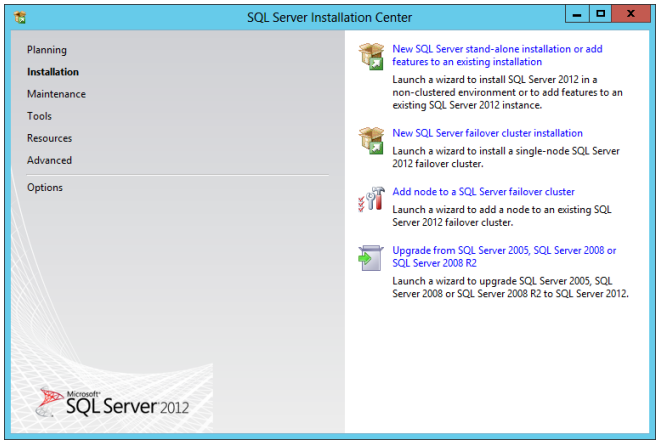


1.2. Microsoft SQL Server configuration (2008R2 / 2012)

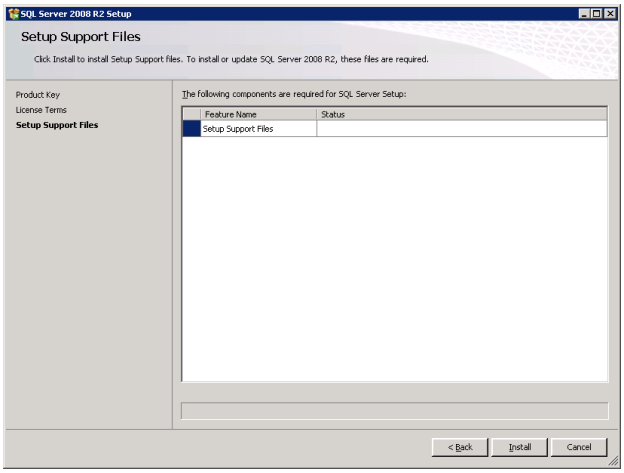
1.2.1. Using SQL Server Setup, the following features should be installed: "Database", "Analysis", "Reporting", "Business Intelligence Development Studio" / "SQL Server Data Tools", "Integration Services", and "Management Tools – Basic", "Management Tools – Complete". Use the standard default configuration settings when installing.

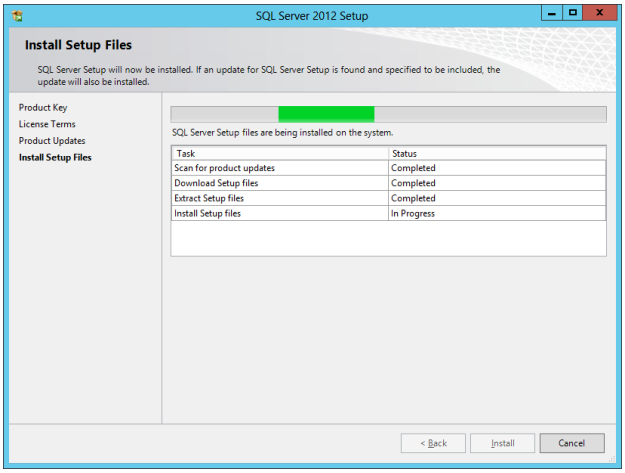
1.2.1.1. Select "New Installation…" / "New SQL Server stand-alone…"



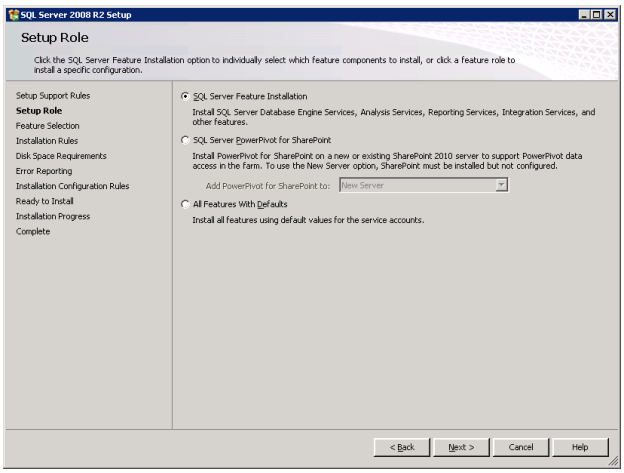


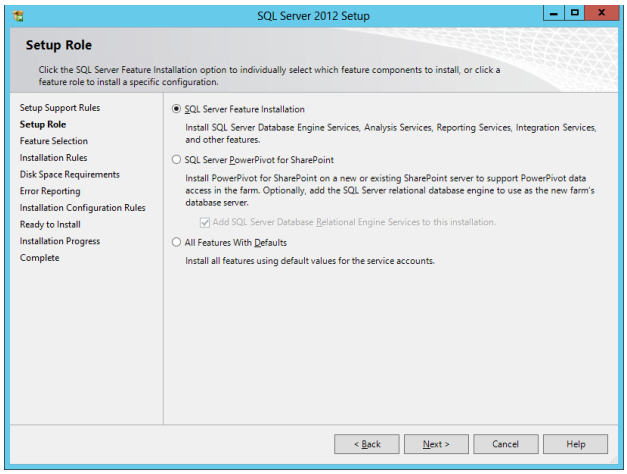
1.2.1.2. Press the Install button on the Setup…" screen





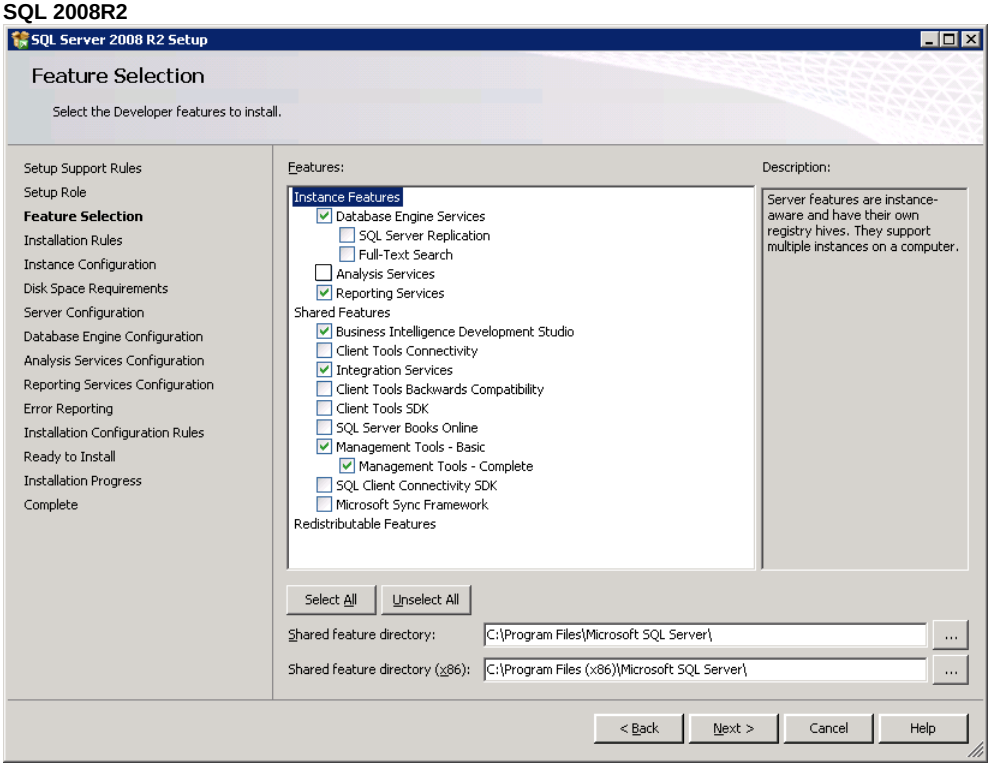
1.2.1.3. Select “SQL Server Feature Installation”, press the Next button



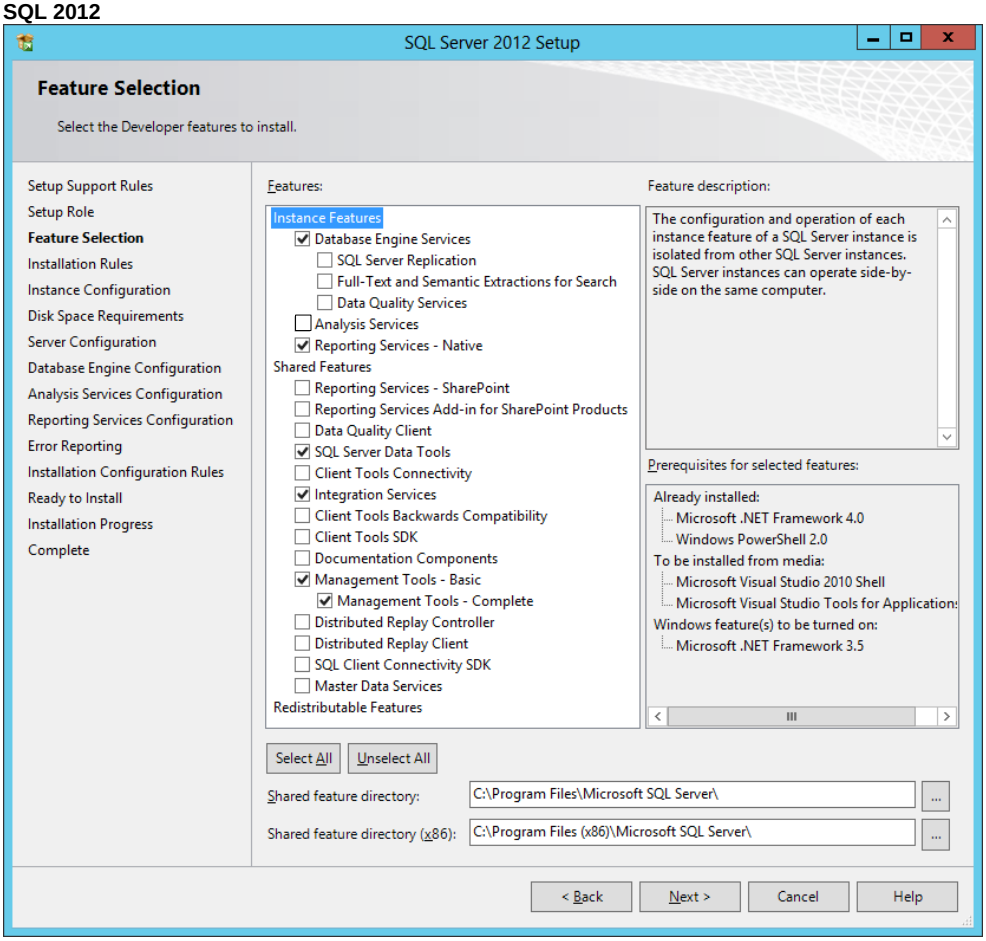


1.2.1.4. Select the checked features shown below, press the Next button

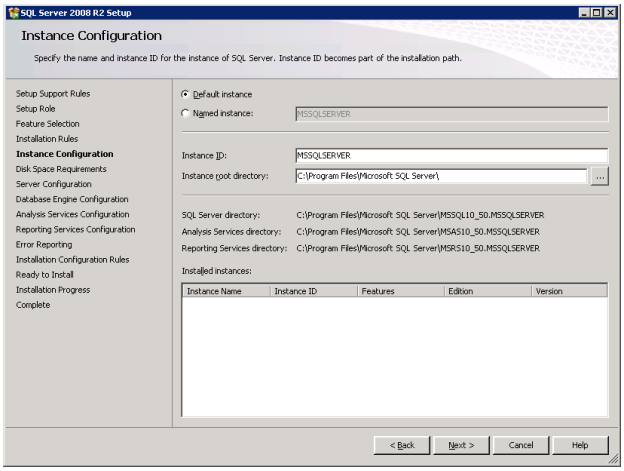
SQL 2008R2

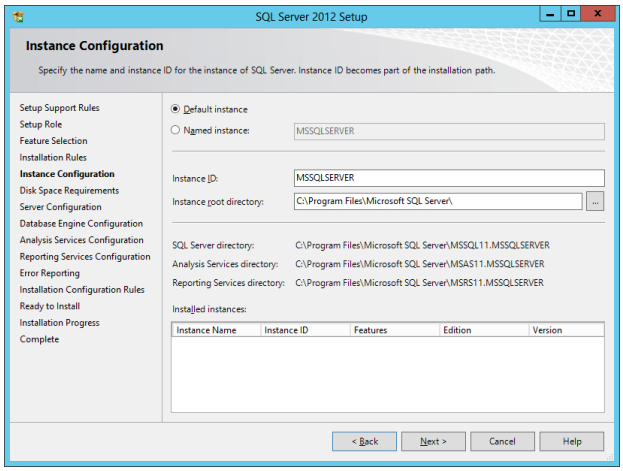


SQL 2012

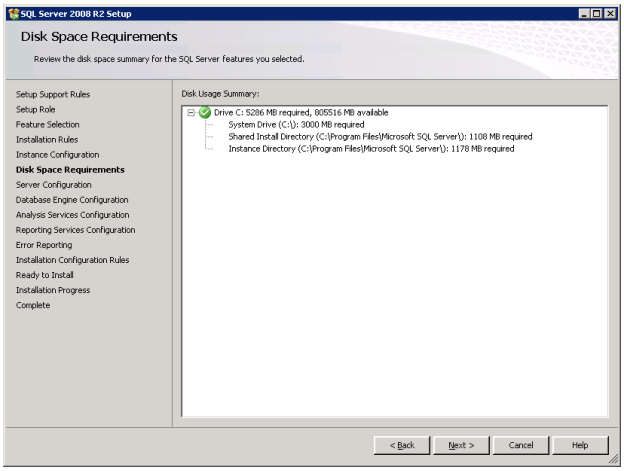


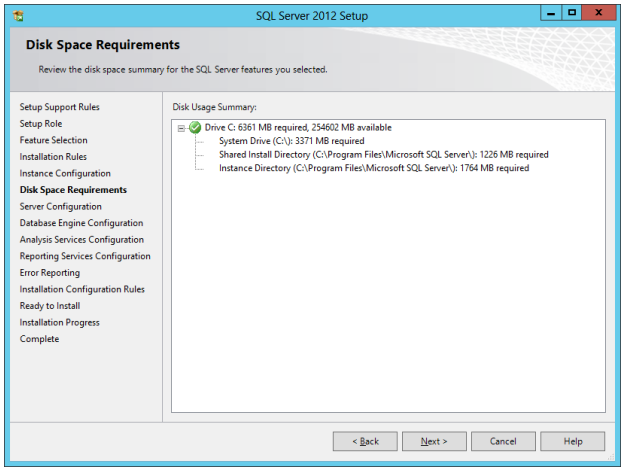
1.2.1.5. Select “Default instance”, press the Next button



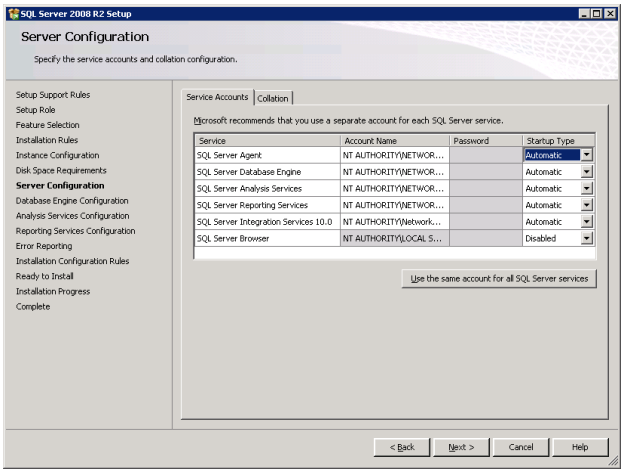


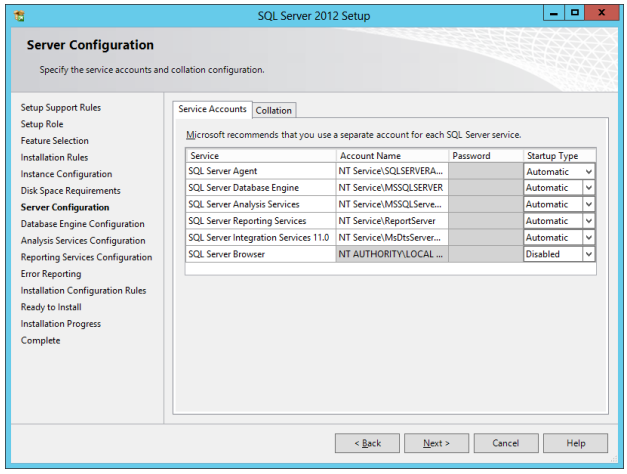
1.2.1.6. Confirm the disk space requirements, press the Next button



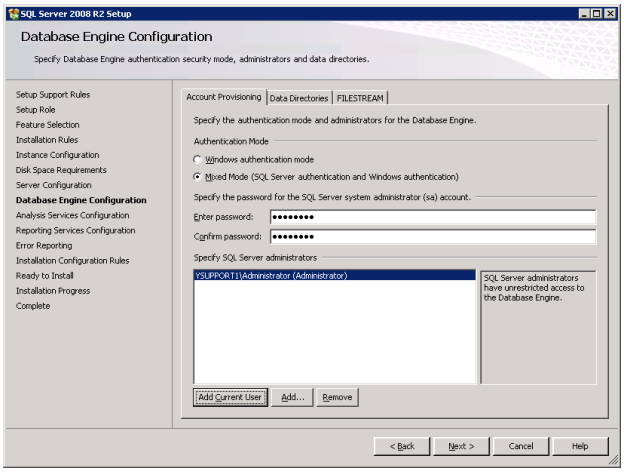


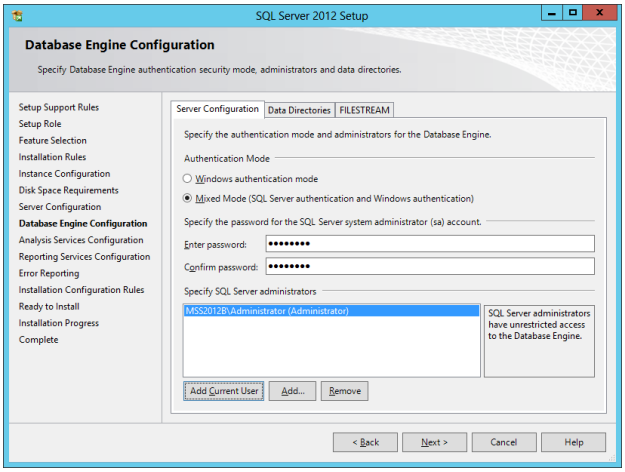
1.2.1.7. Select “NT Authority/Network Services” for Account Names (SQL 2012 fills in accounts) and set SQL Server Agent Startup Type to Automatic, press the Next button



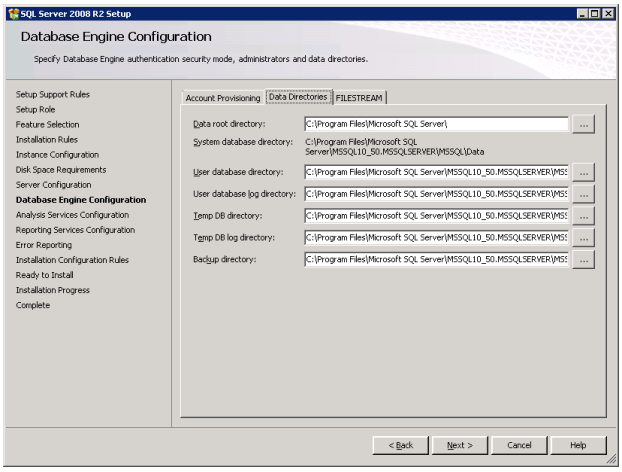


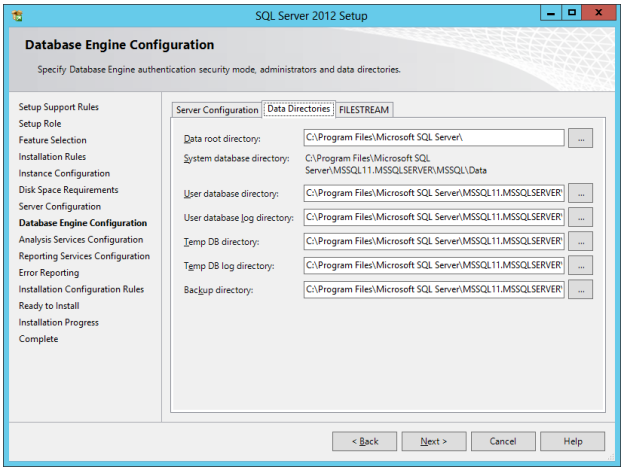
1.2.1.8. Set Authentication Mode to “Mixed Mode”, enter the sa password, press “Add Current User” button, press the “Data Directories” tab



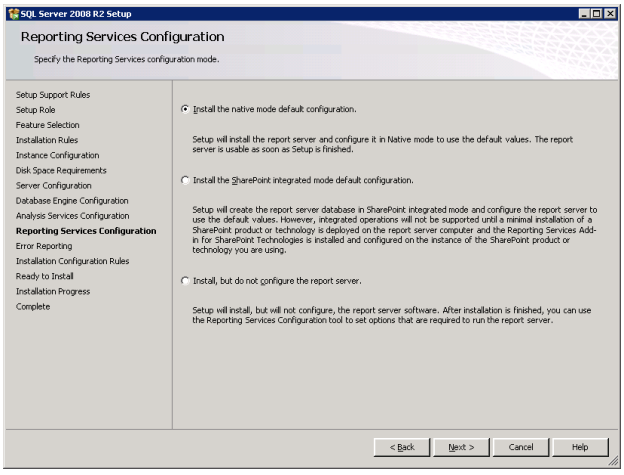


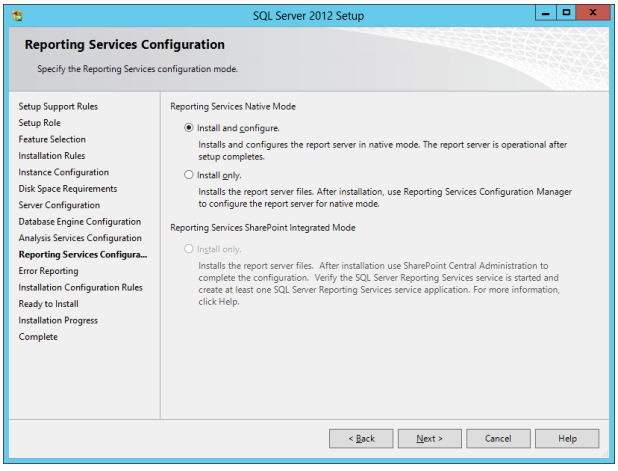
1.2.1.9. Set the data directory locations or accept the defaults, press the Next button



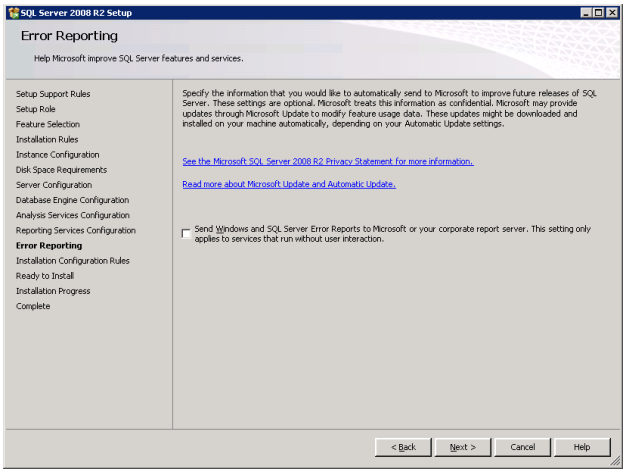


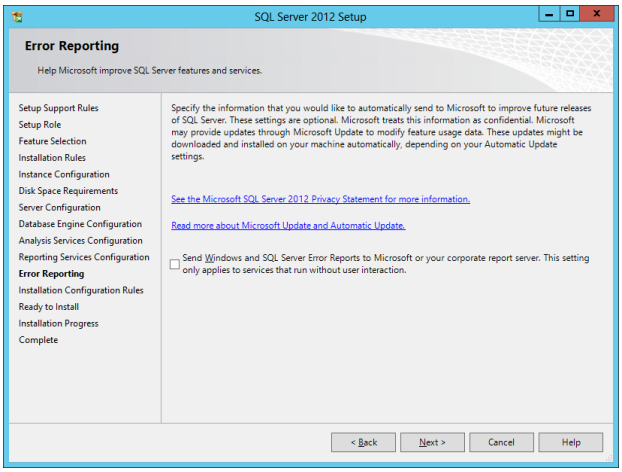
1.2.1.10. Select “Install the native mode default configuration” on the Reporting Services Configuration screen, press the Next button



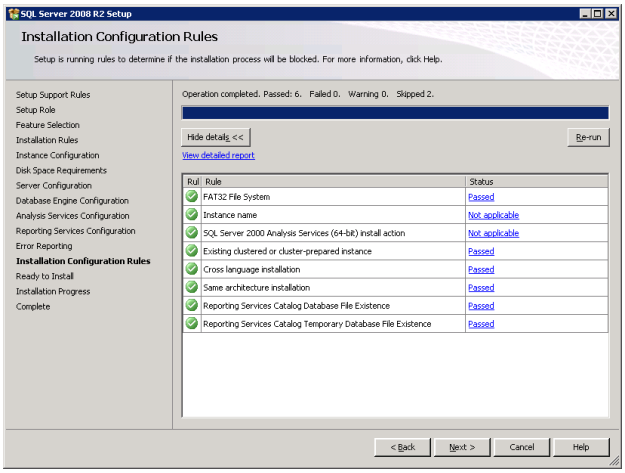


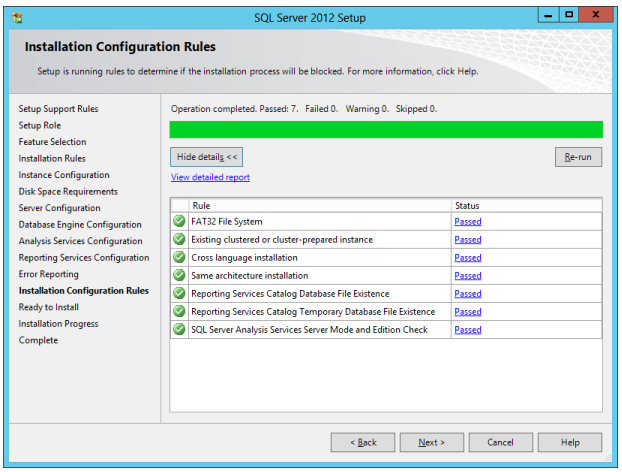
1.2.1.11. Press the Next button on the 'Error Reporting' screen



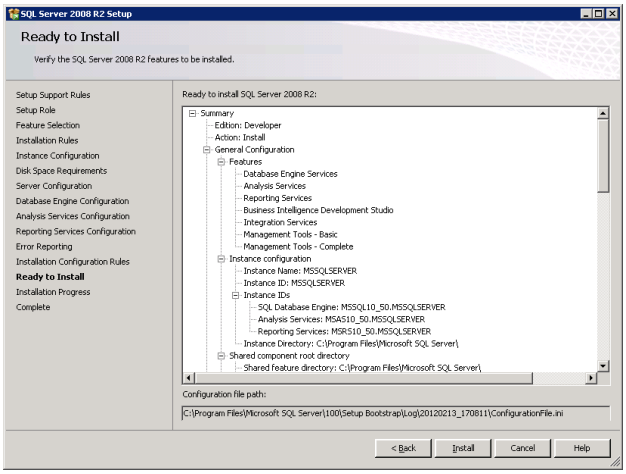


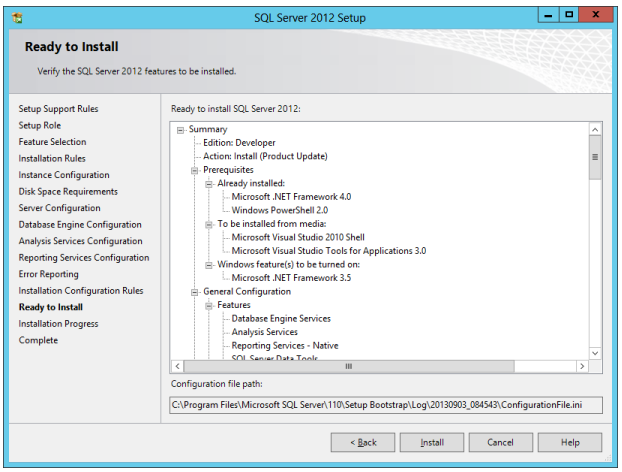
1.2.1.12. Press the Next Button on the "Installation Configuration Rules" screen



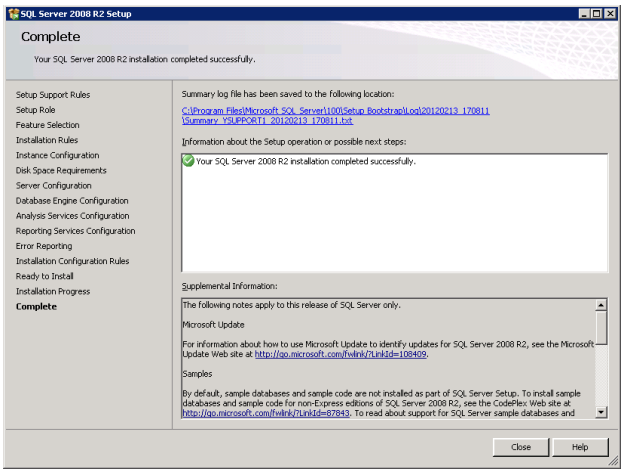


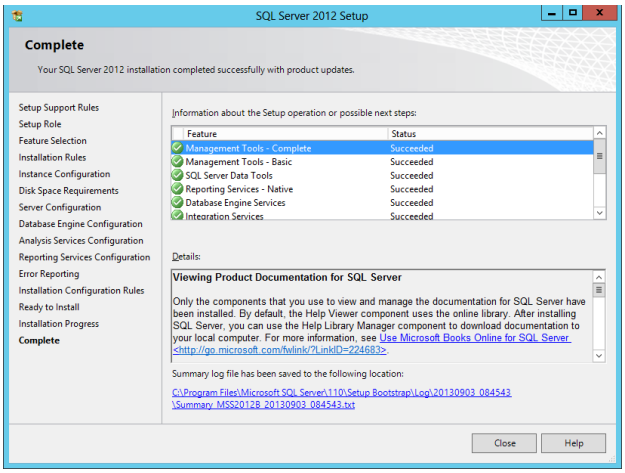
1.2.1.13. Press the Install button on the "Ready to Install" screen





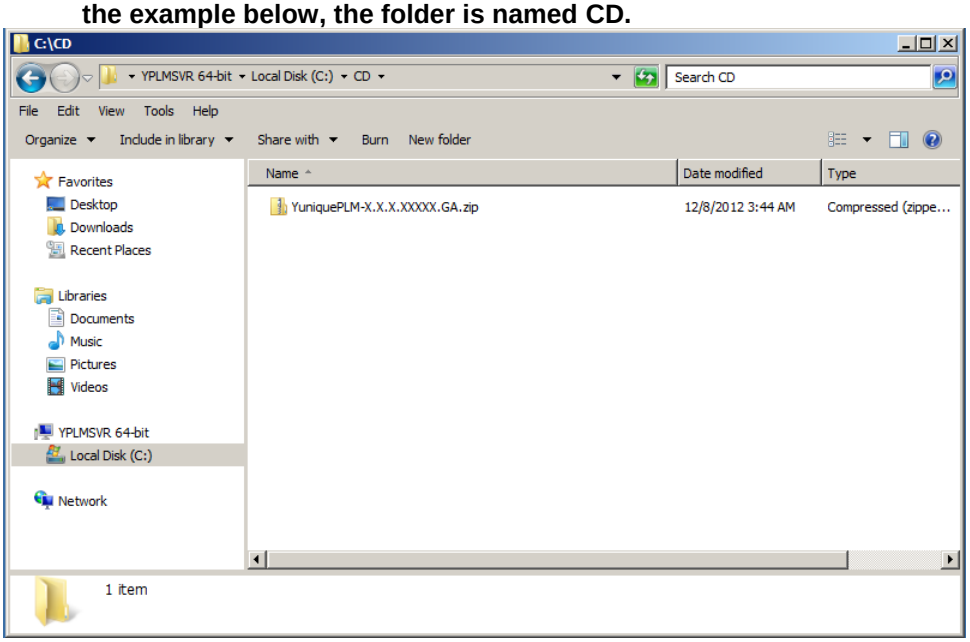
1.2.1.14. Press the Close button on the “Complete” screen



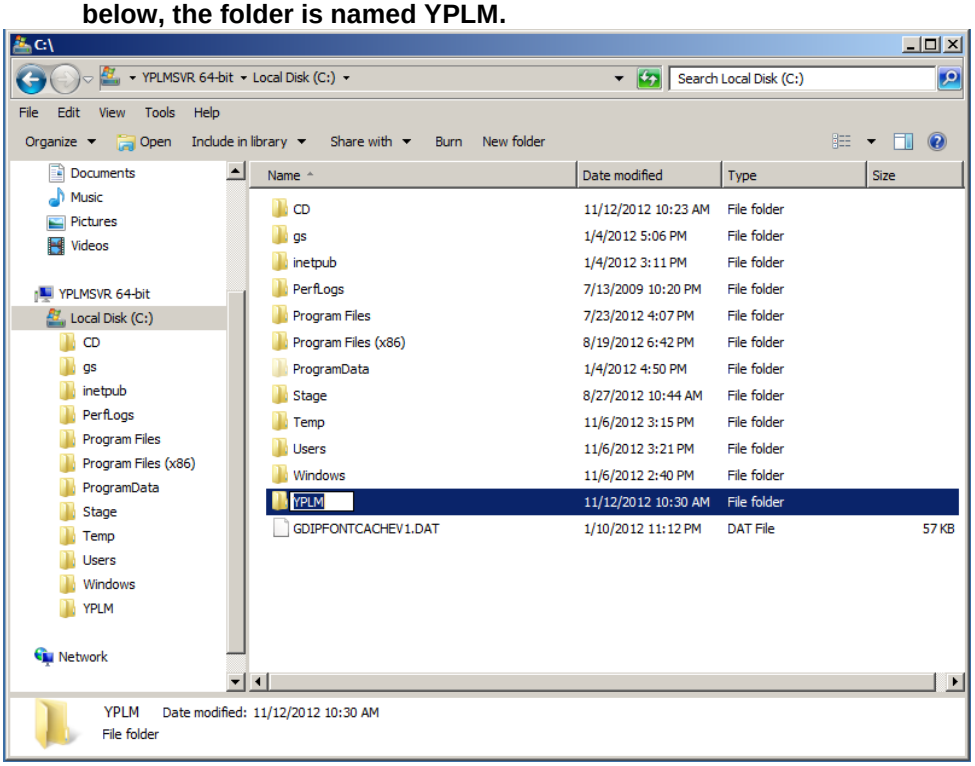


1.3. Preparing for YuniquePLM™ software installation

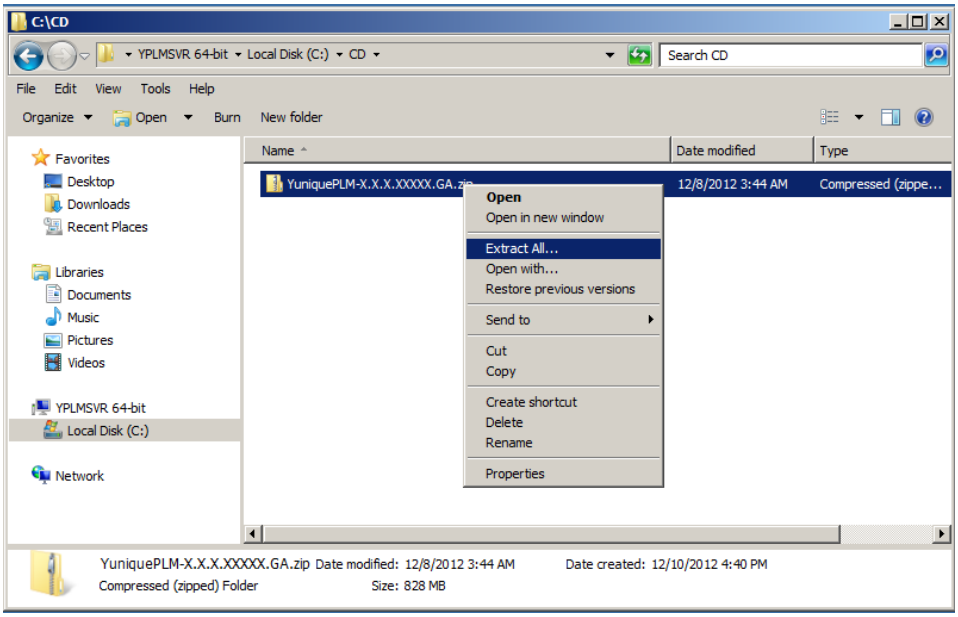
1.3.1. Create a folder and copy the YuniquePLM™ distribution software zip file to the server. In the example below, the folder is named CD.



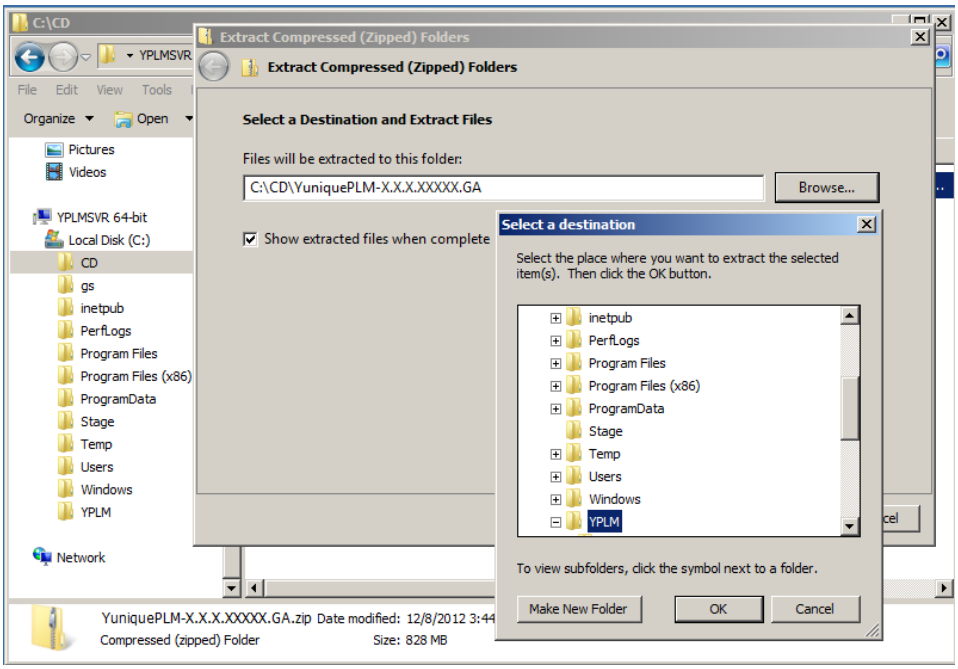
1.3.2. Create a folder where the YuniquePLM™ software and data files will reside. In the example below, the folder is named YPLM.



1.3.3. Right click on the ZIP file and select “Extract All”

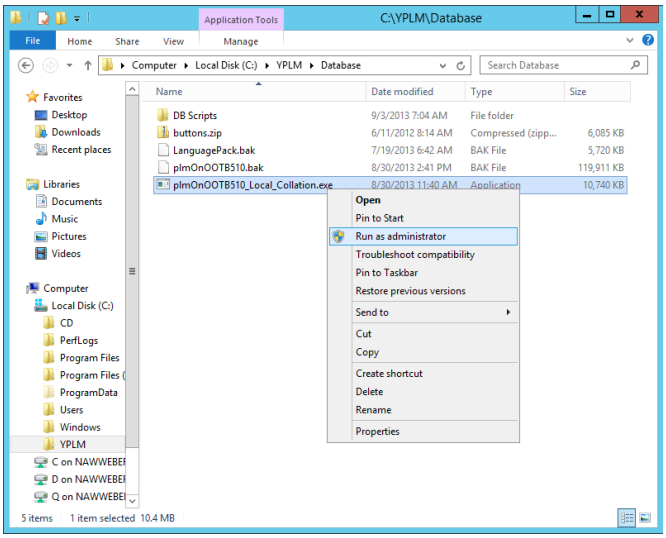


1.3.4. Press the Browse button and select the destination folder where all the files and folders and data will be extracted. Press OK and then press the Extract button.

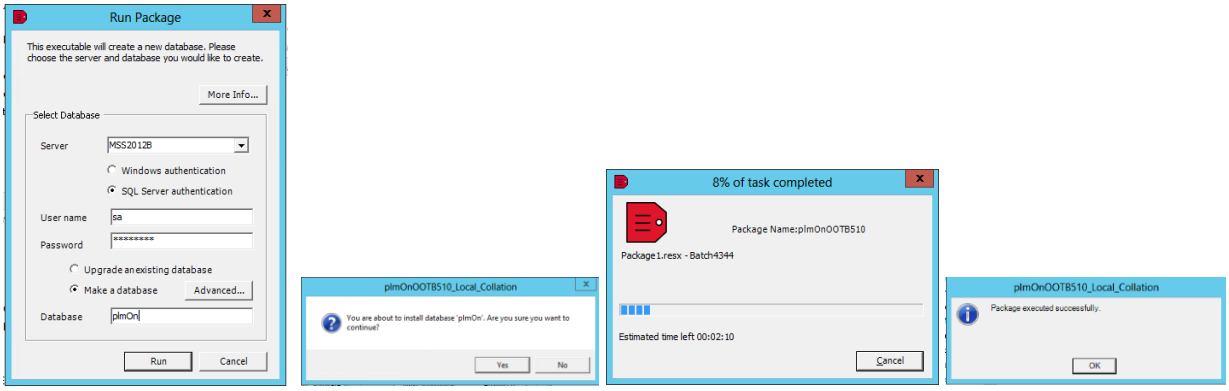


1.4. Installing the Initial YuniquePLM™ Database

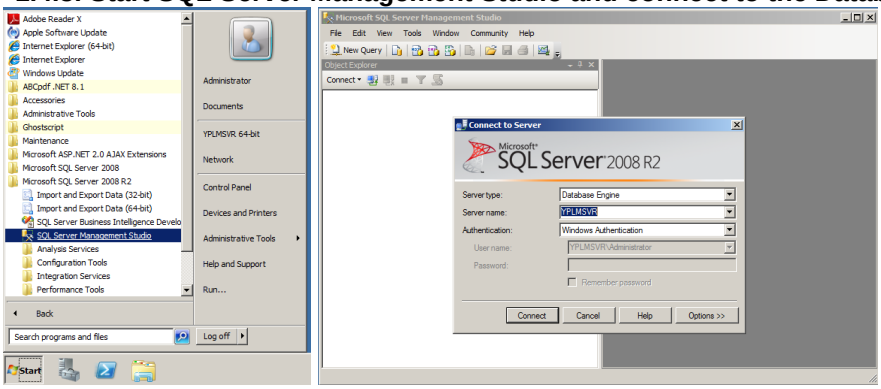
1.4.1. Go to the YPLM\Database folder and execute the "plmOnOOTB5xx_Local_collation.exe" program (where "5xx" is the version). Right click and select "Run as administrator"



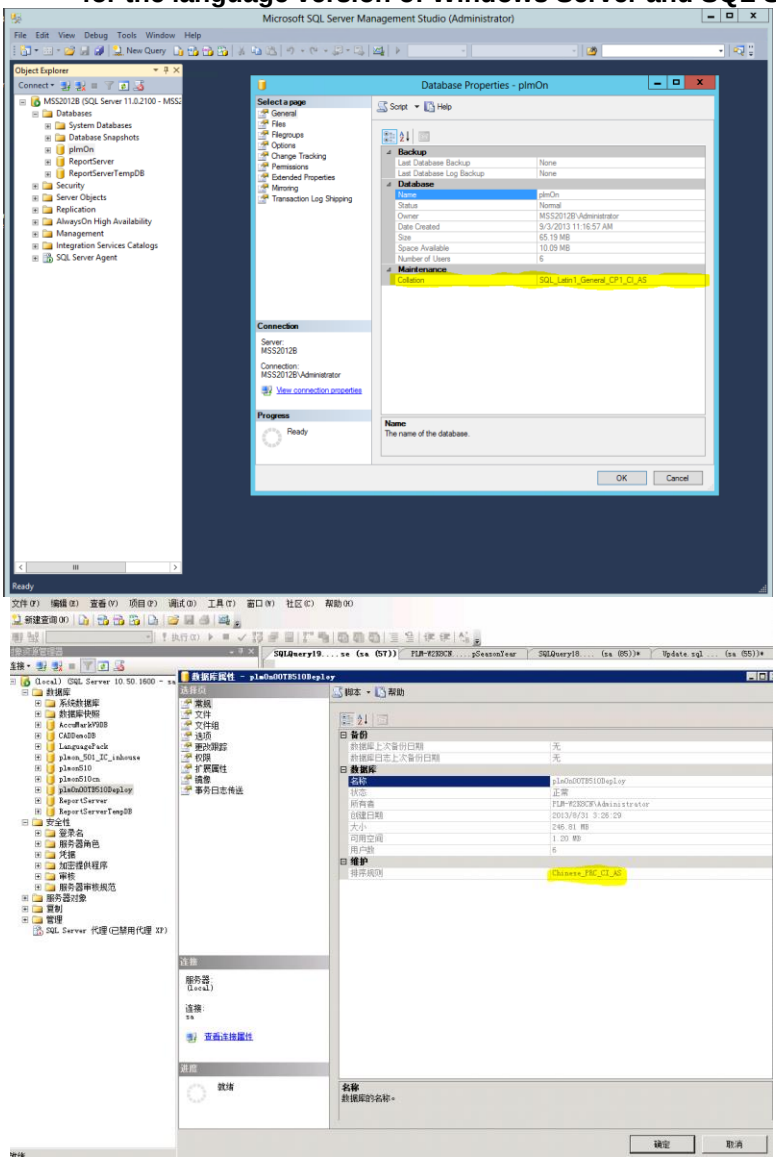
1.4.2. Select the database server where the database will be restored, select either "Windows authentication" or "SQL Server authentication" will be used to create the database (if "SQL Server authentication" is selected enter the "User Name" and "Password" for the SQL account). Select "Make a database", and enter the database name to create (Note: If a database with the entered name exists, it will be overwritten). Press "Run" and press "Yes" to confirm. The initial database will be created on the selected server using the database name provided. Press "OK" when complete.



1.4.3. Start SQL Server Management Studio and connect to the Database Server



1.4.4. Expand the Databases Object to confirm the database has been restored, select the database, right click and select "Properties". Verify that the database Collation is correct for the language version of Windows Server and SQL Server installed.



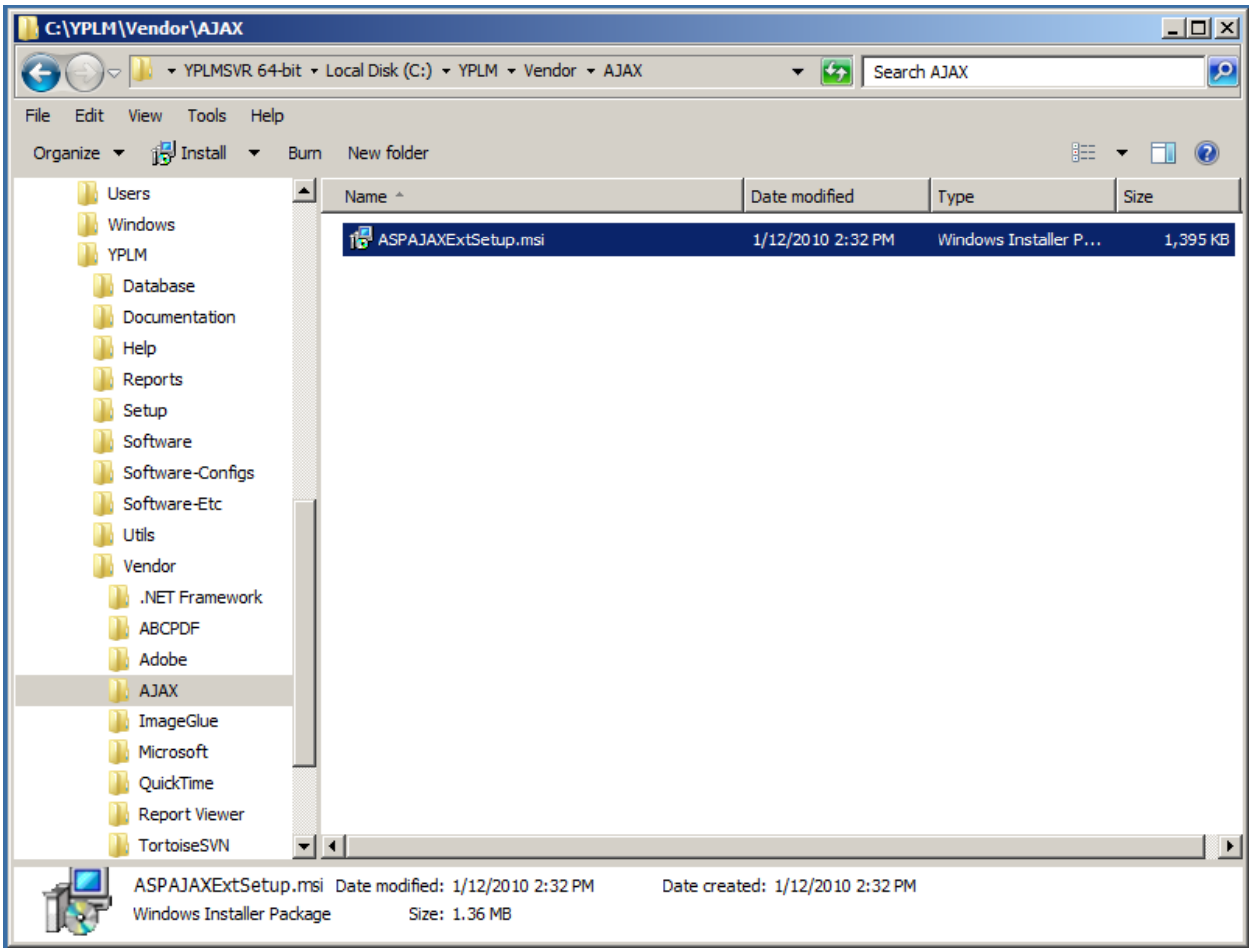
1.5. Installing additional support software

1.5.1. Adobe Reader and QuickTime.

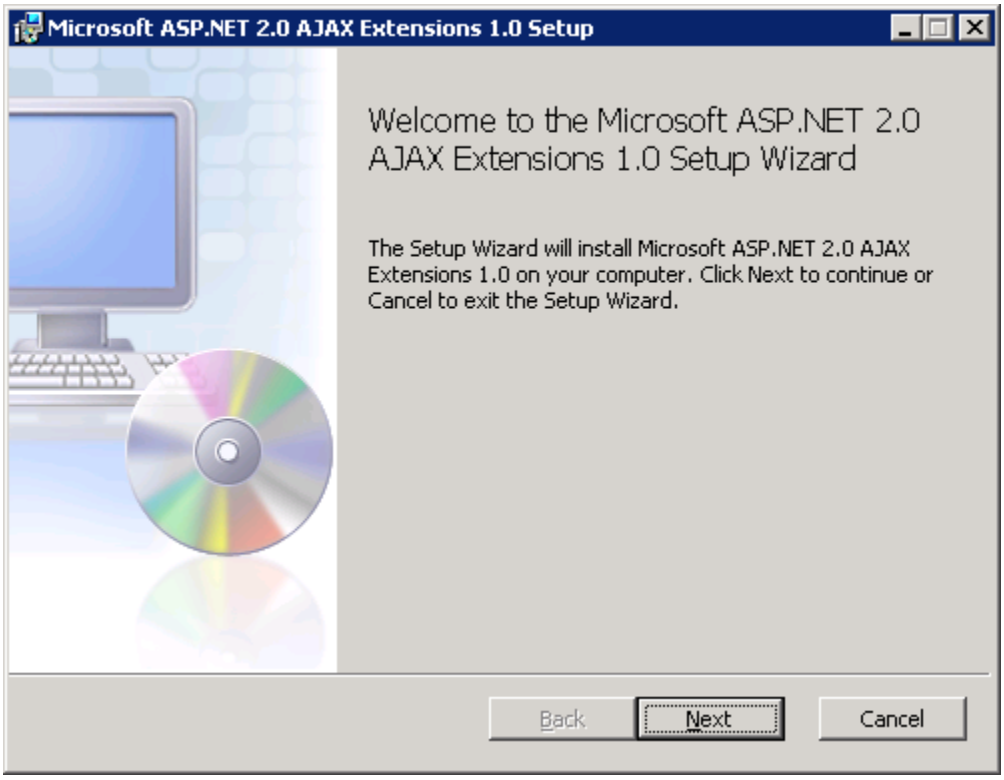
1.5.1.1. Although the YuniquePLM™ distribution ZIP files contain installation files for Adobe Reader and QuickTime, it would be best if these applications were installed from the vendor's website to insure the latest version is installed and compatible with the installed operating system. Adobe Reader can be installed from the http://adobe.com website, and QuickTime can be installed from the http://quicktime.com website.

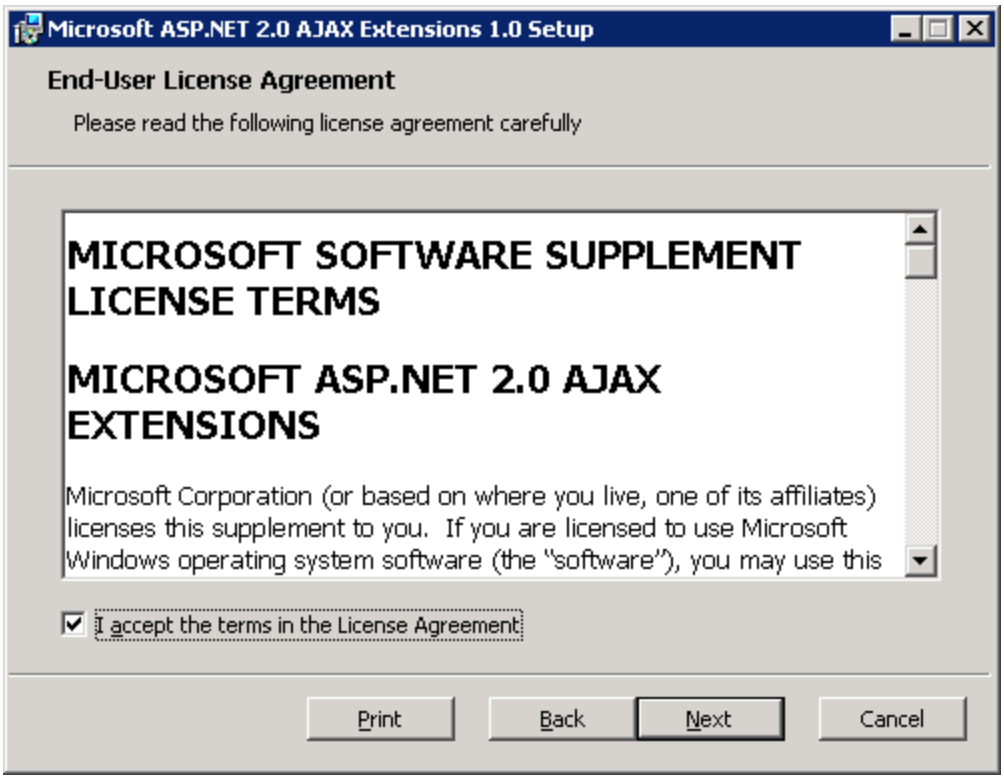
1.5.2. Microsoft AJAX V1.0 Extensions for Microsoft .NET 2.0.

1.5.2.1. Go to the YPLM\Vendor\AJAX folder and execute the "ASPAJAXExtSetup.msi" program.

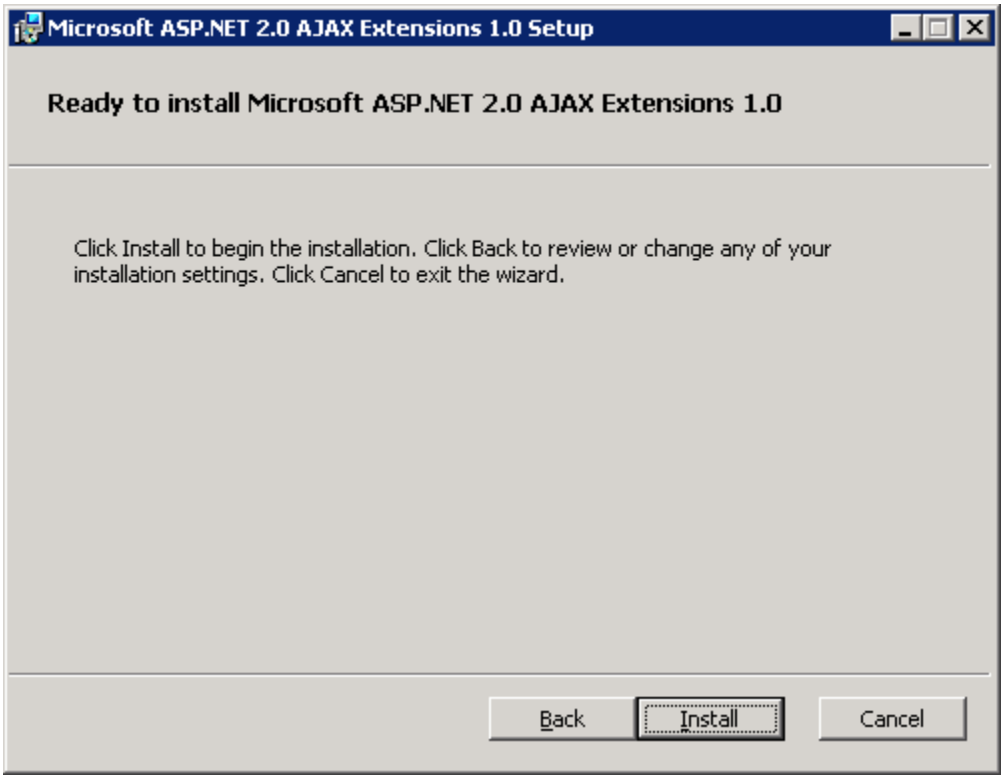


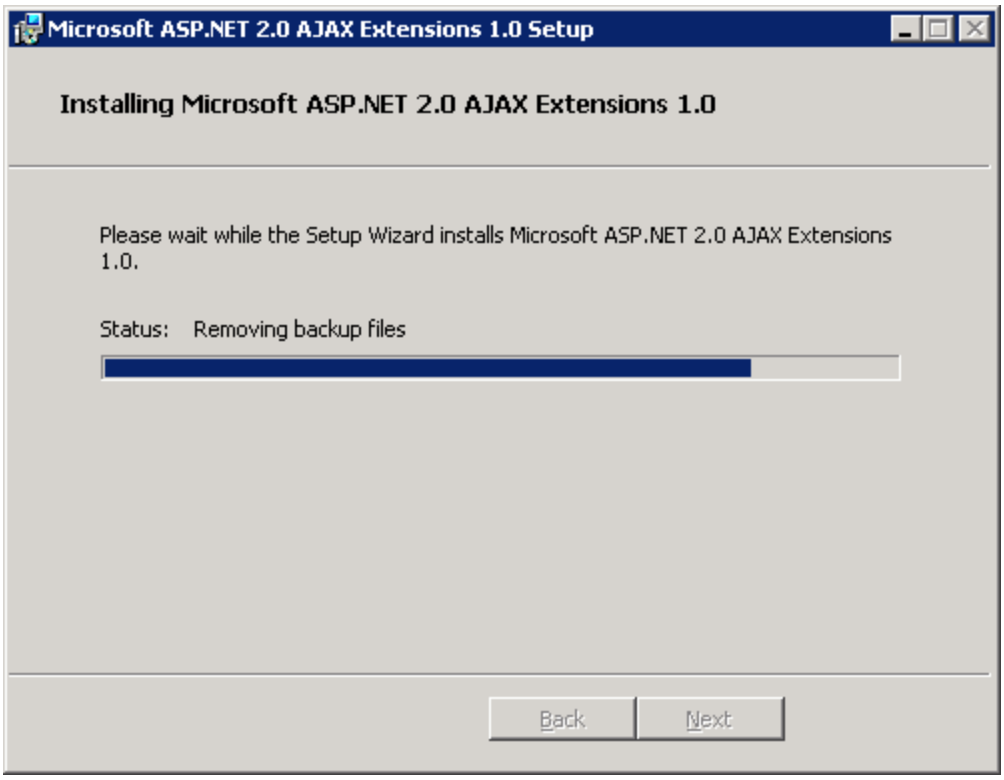
1.5.2.2. Press the Next button, check Accept, and press the Next button again



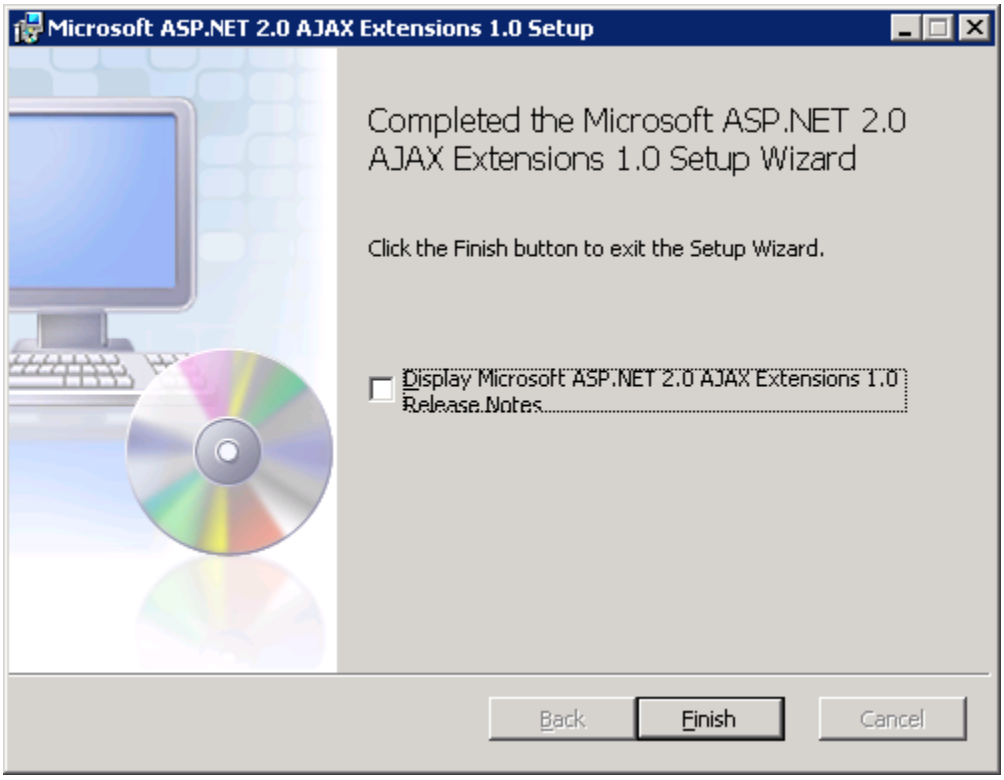


1.5.2.3. Press the Install button to begin installation





1.5.2.4. Uncheck the “Display . . .” checkbox and press the Finish button



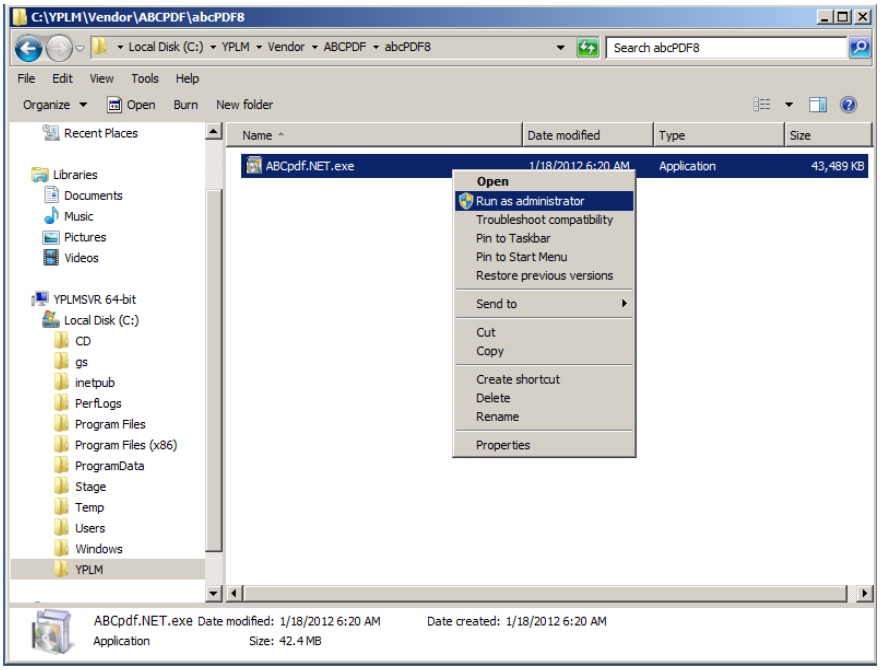
1.5.3. Microsoft .NET Framework 4.5.

1.5.3.1. Microsoft .NET Framework 4.5 is included with Windows Server 2012 / 2012R2, but must be installed on Windows Server 2008R2.

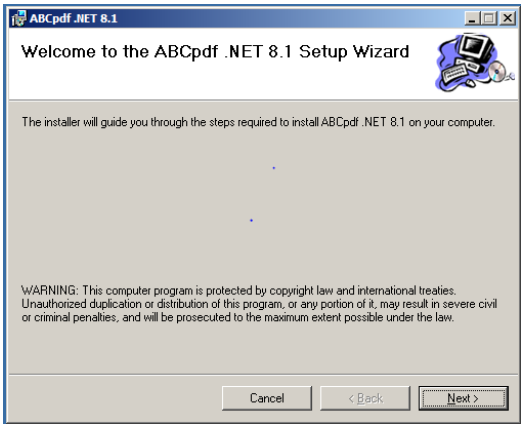
1.5.3.2. Go to the YPLM\Vendor\.NET Framework folder and execute the "dotNetFx45_Full_setup.exe" program. Right click on the file and select "Run as administrator" and follow the installation instructions.

1.5.4. ABCPDF.NET

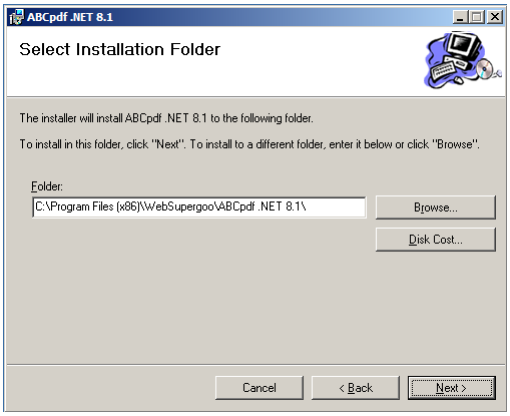
1.5.4.1. Go to the "YPLM\Vendor\ABCPDF\abcPDF8" folder and execute the "ABCpdf.NET.exe" program. Right click on the file and select "Run as administrator".

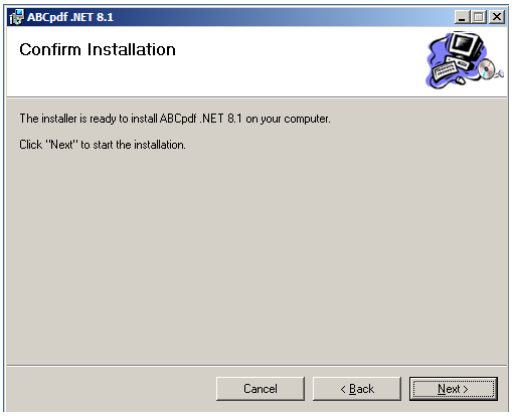


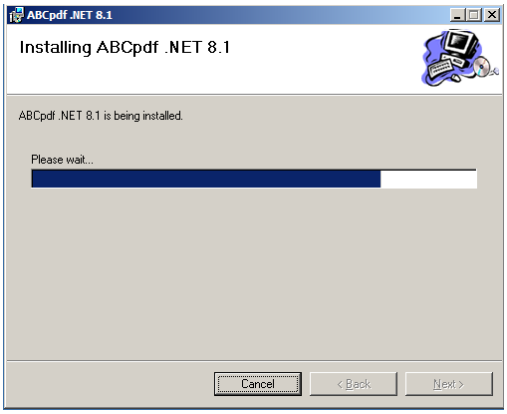
1.5.4.2. Press the Next button, select "I Agree" and press the Next button.

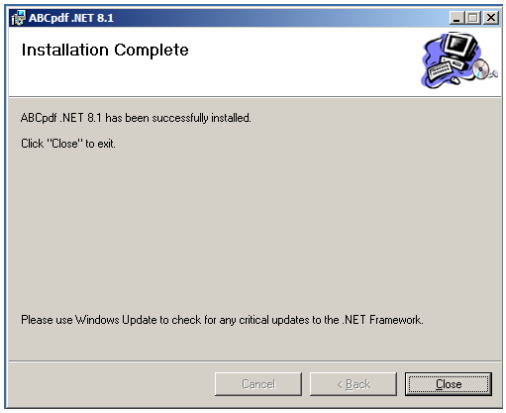


1.5.4.3. Press the Next button to select the default Installation Folder and press the Next button to start the installation. When complete press the Close button.

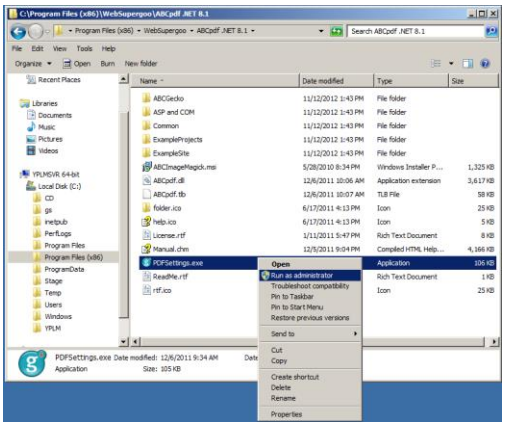


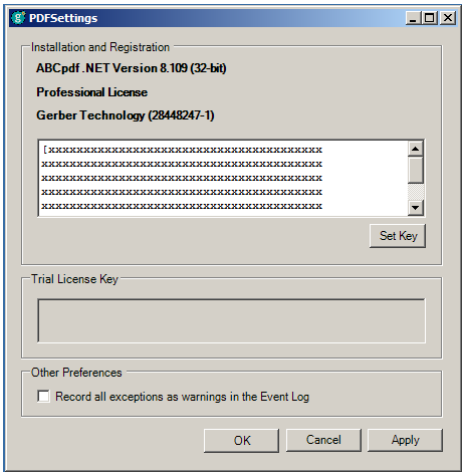






1.5.4.4. Open the "C:\Program Files (x86)\WebSupergoo\ABCpdf .NET 8.1" folder, find the PDFSettings.exe program, right click and select "Run as administrator". Enter the License Key (supplied by Gerber); press the "Set Key" button, then press the Apply button. The license type should change from a Trial License to a Professional License.



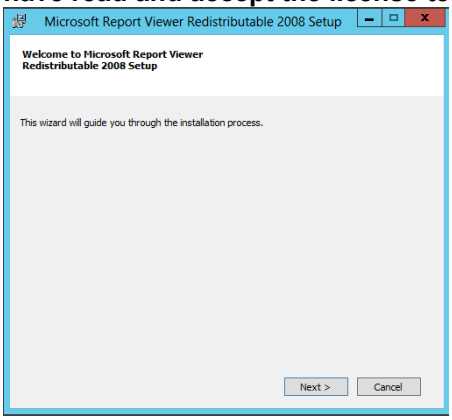


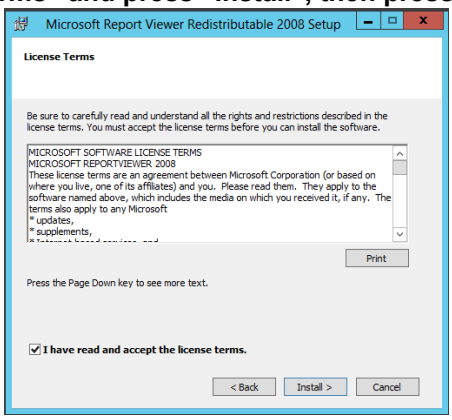
1.5.5. Microsoft ReportViewer

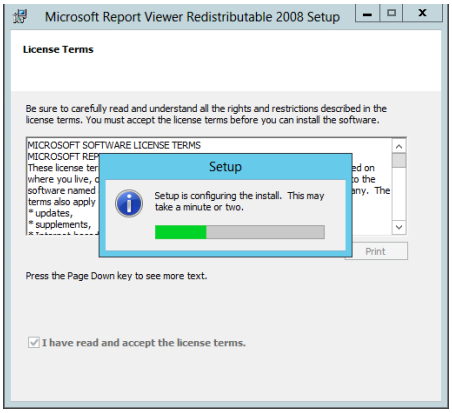
1.5.5.1. For single server configurations (database, web, and file server) Microsoft ReportViewer is automatically installed with SQL Server (SQL 2008R2 / ReportViewer 2008 or SQL 2012 / ReportViewer 2012). The YuniquePLM™V5.1 web server (plmOn / srmOn) uses ReportViewer 2008 and ReportViewer 2010 to display generated YuniqueBI reports. Depending on the server configuration and version of SQL installed, one or both versions of ReportViewer will need to be installed on the YuniquePLM™web server:

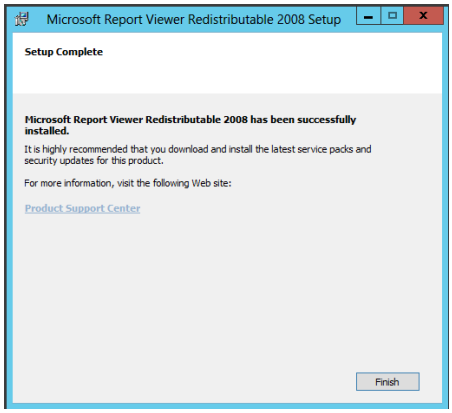
Web Server with SQL 2008R2	**Install ReportViewer 2010**
Web Server with SQL 2012	**Install ReportViewer 2008 and 2010**
Web Server with no SQL	**Install ReportViewer 2008 and 2010**

1.5.5.2. Go to the "YPLM\Vendor\Report Viewer" folder and execute the "ReportViewer2008.exe" program. Right click on the file and select "Run as administrator". Select "Next", check "I have read and accept the license terms" and press "Install", then press "Finish"

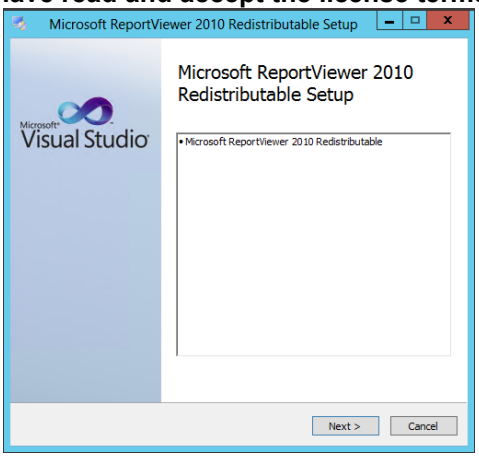


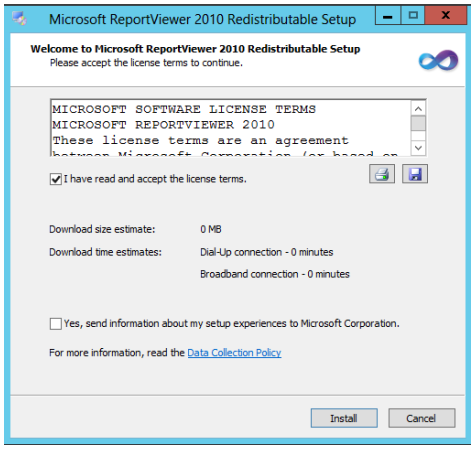


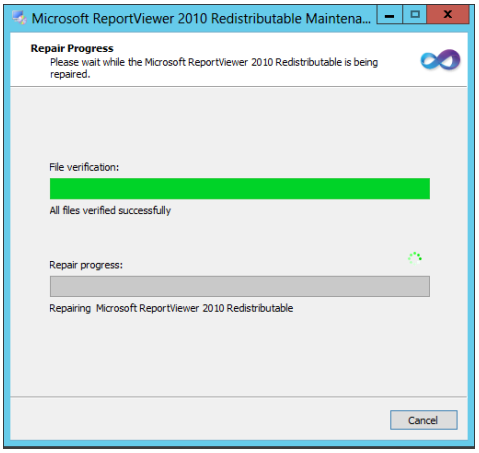


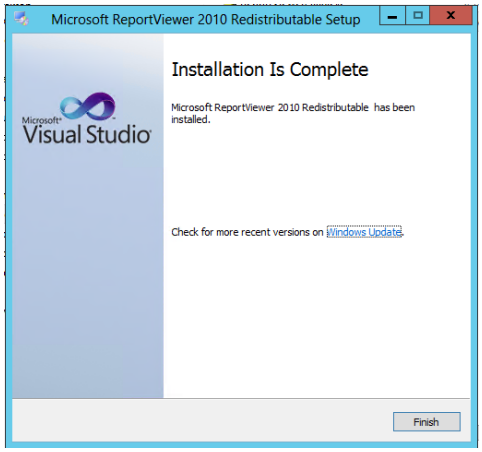


1.5.5.3. Go to the "YPLM\Vendor\Report Viewer" folder and execute the "ReportViewer2010.exe" program. Right click on the file and select "Run as administrator". Select "Next", check "I have read and accept the license terms" and press "Install", then press "Finish"









2. Installing YuniquePLM™

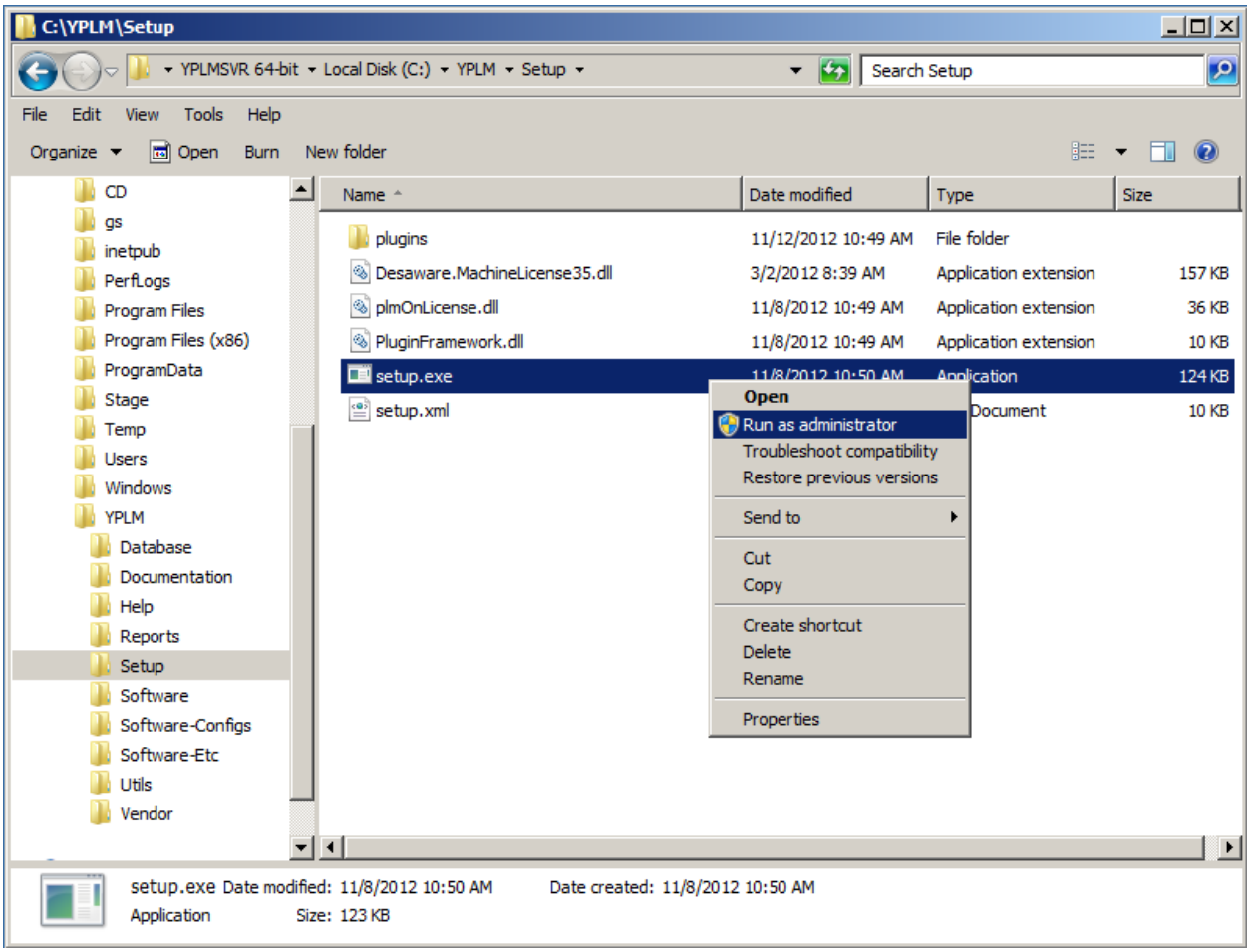
The setup utility included in the YuniquePLM™distribution zip file is currently designed to install on a single server that is used as the database, file, and web server. For multiple server configurations it is highly recommended that the complete Microsoft SQL Management Studio tools be installed on the YuniquePLM™web server. This will allow the execution of certain setup utility functions on an external database server, such as installing reports for SQL Reporting Services, and synchronize the system configuration with the database. To install the SQL management tools follow the installation instructions in section 1.2, but only select "Management Tools – Basic" and "Management Tools – Complete" features.

Currently multiple server configurations using a separate file server, SQL Reporting servers, and/or additional web servers require manual installation and configuration. In some cases the unzipped and configured YuniquePLM™distribution folder can be copied to the various servers so that the setup utility can be used for installation and configuration. For example, the setup utility can be run on a SQL Reporting server to install the initial reports, or run on an additional web server to install the additional support software and web applications.

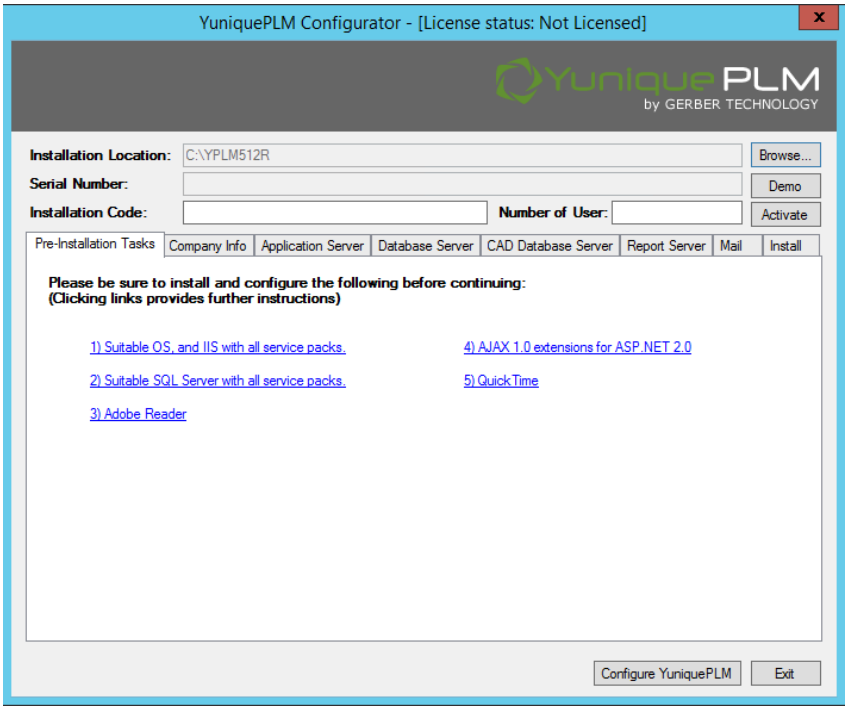
The setup utility does limited error checking during the installation process. Insure that the currently logged in user has appropriate permissions for setup and installation, that all the required information is entered and correct, and that all the prerequisite support programs and utilities have been installed prior to running the setup utility. Also use the "Run as administrator" where documented, even if the currently logged in user is an Administrator. The installation description below in this guide is for a single server configuration. This Installation Guide does not address multiple server manual installation and configuration.

Note that balloon help messages are displayed for many data entry boxes by placing the mouse pointer in the box.

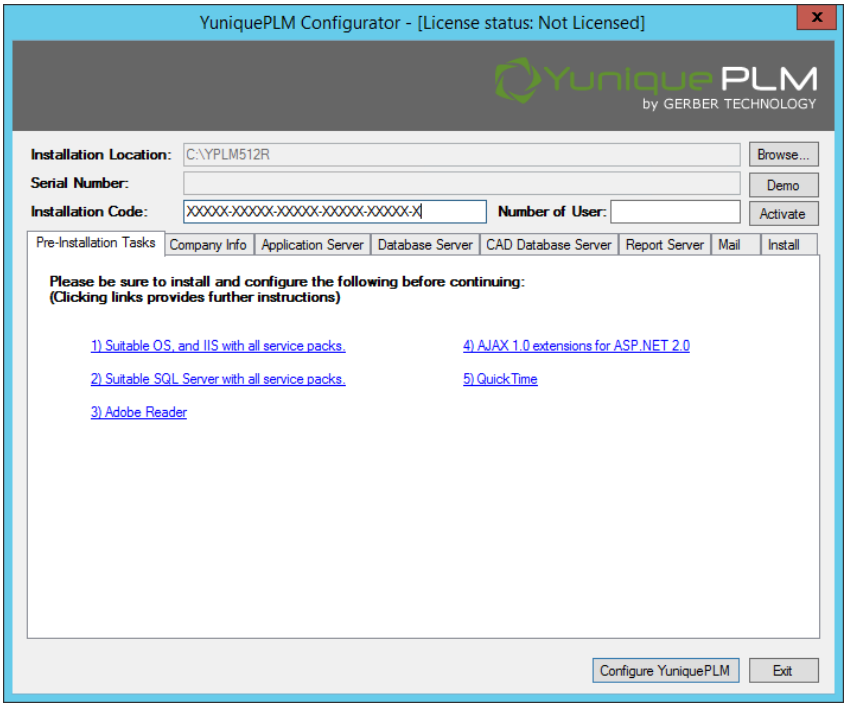
2.1. Locate the "setup.exe" utility in the YPLM\Setup folder and select "Run as administrator".



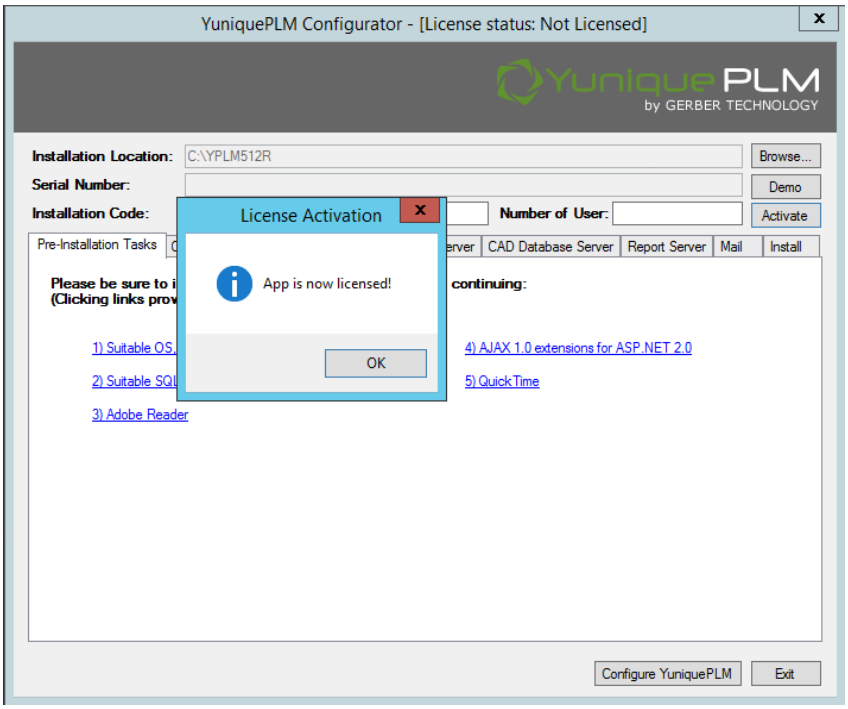
2.1.1. The Title Bar will show that the YuniquePLM™license status is "Not Licensed". The "Serial Number" box will display the system serial number.



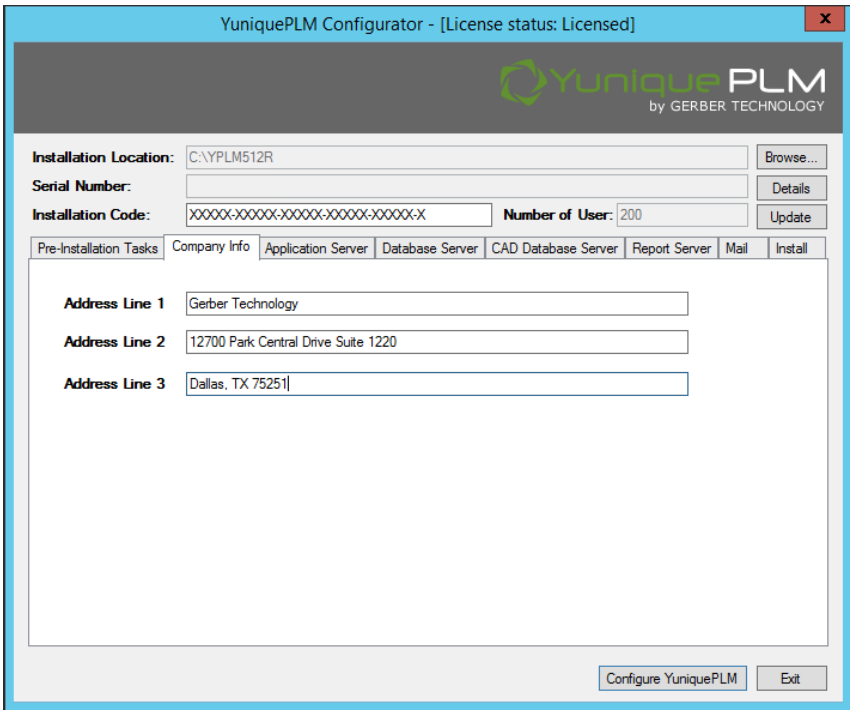
2.1.2. Enter the Installation Code (supplied by Gerber) and press the "Activate" button to obtain a license from the Gerber License server via the internet. Only web servers need to be licensed.



A message box will appear indicating a valid license has been obtained. The Title Bar will now show the License status as Licensed, and the "Number of Users" box will show the number of licensed users. The "Activate" button is changed to an "Update" button. To update a license for additional users or additional application options, run the Setup utility and press the Update button when notified by Gerber that the update is available on the License server.



2.1.3. Select the "Company Info" tab and enter the company address information.



2.1.4. Select the "Application Server" tab and enter the web server name and the TCP/IP address of the web server (the TCP/IP address should be a static IP address).

Enter the name of the local Windows user account and password you want the setup utility to create. This account is the website impersonation account.

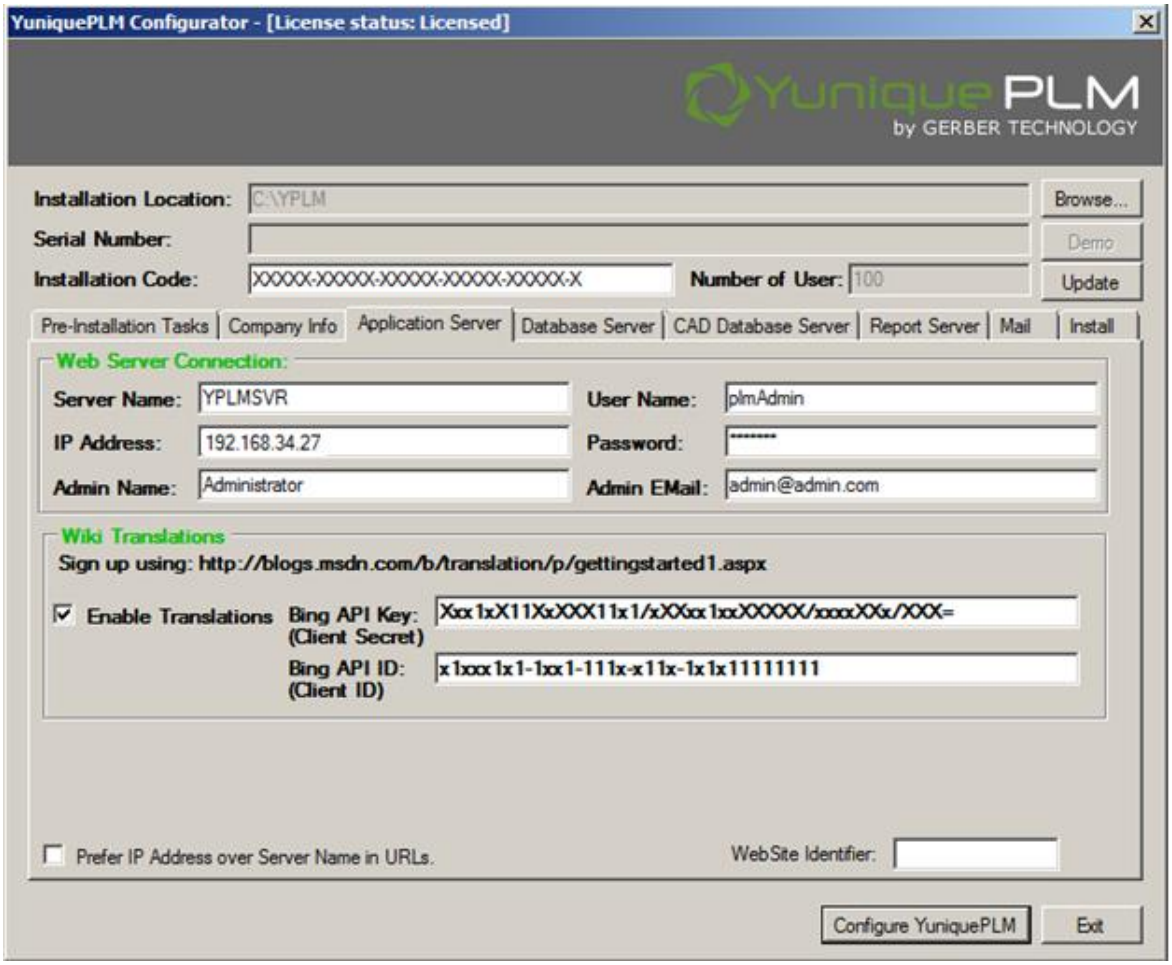
Enter the name of the YuniquePLM™ administrator and the YuniquePLM™ administrator's email address.

Normally the YuniquePLM™ websites that are created are named plmOn and srmOn. If you wish to add a website identifier to the end of the website names created, enter the identifier in the "Website Identifier" box. For example, entering "Test" in the "Website Identifier" box will direct the setup utility to create websites plmOnTest and srmOnTest.

Microsoft's translation service can be used to provide language translations of the Wiki Help messages. You will have to sign up for the service and obtain license keys from Microsoft at

https://datamarket.azure.com/dataset/1899a118-d202-492c-aa16-ba21c33c06cb

Select the "Enable Translations" checkbox and enter your API Key and API ID license keys



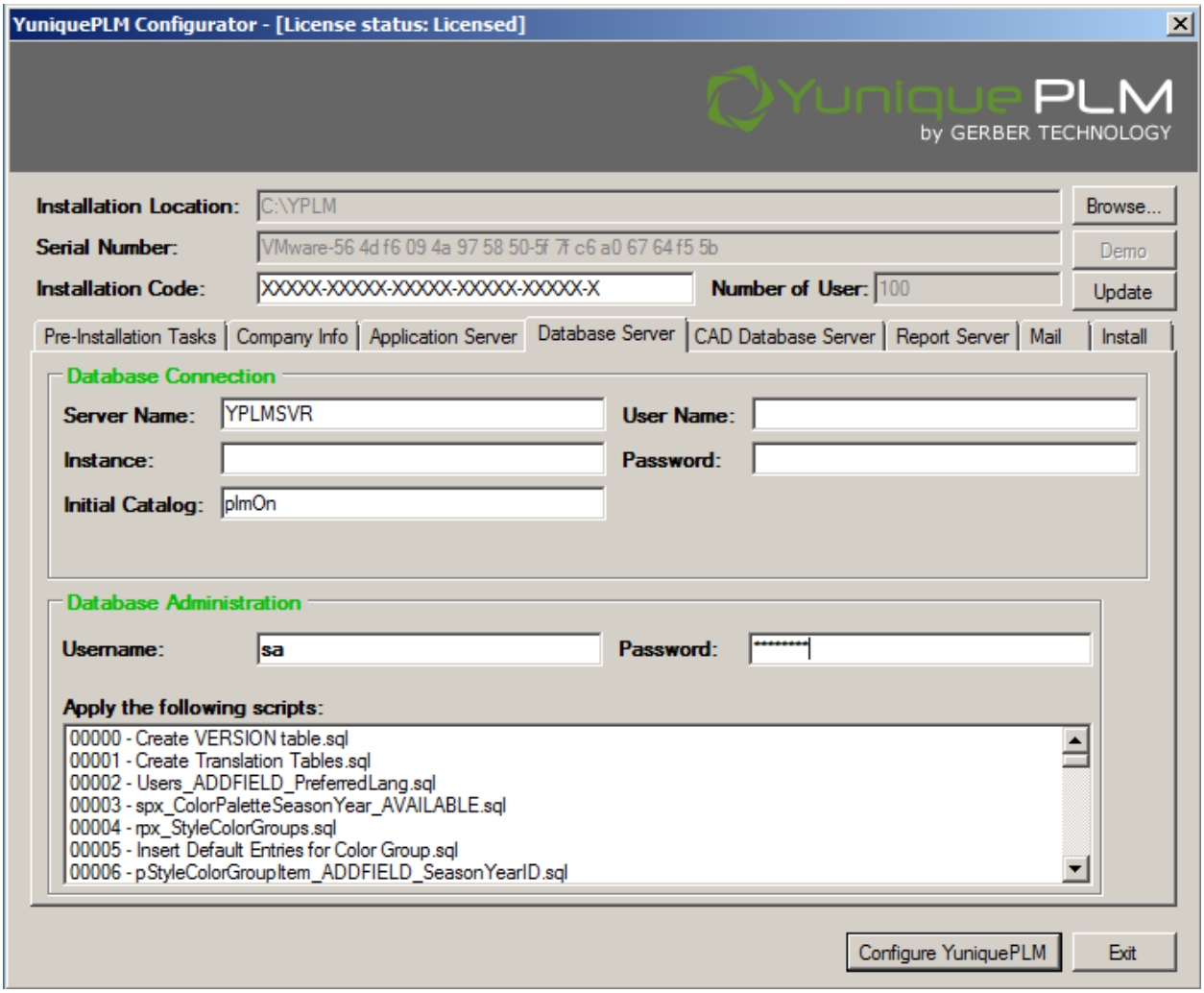
2.1.5. Select the "Database Server" tab.

In the "Database Connection" section

- **Enter the database server name.**
- **Enter the SQL Server Instance name that will host the YuniquePLM™database (leave this field blank if the default instance will be used).**
- **Enter the name of the YuniquePLM™database you want the setup utility to create from the initial YuniquePLM™database or the existing YuniquePLM™database name.**
- **Leave the User Name and Password blank if you want the Windows impersonation account to access the database (Integrated Security), or enter a SQL Server User Name and Password that has dbo permissions to the YuniquePLM™database (SQL authentication).**

In the "Database Administration" section

- **Enter a SQL Server user account and password with dbo permissions that can update the YuniquePLM™database (usually the sa account).**

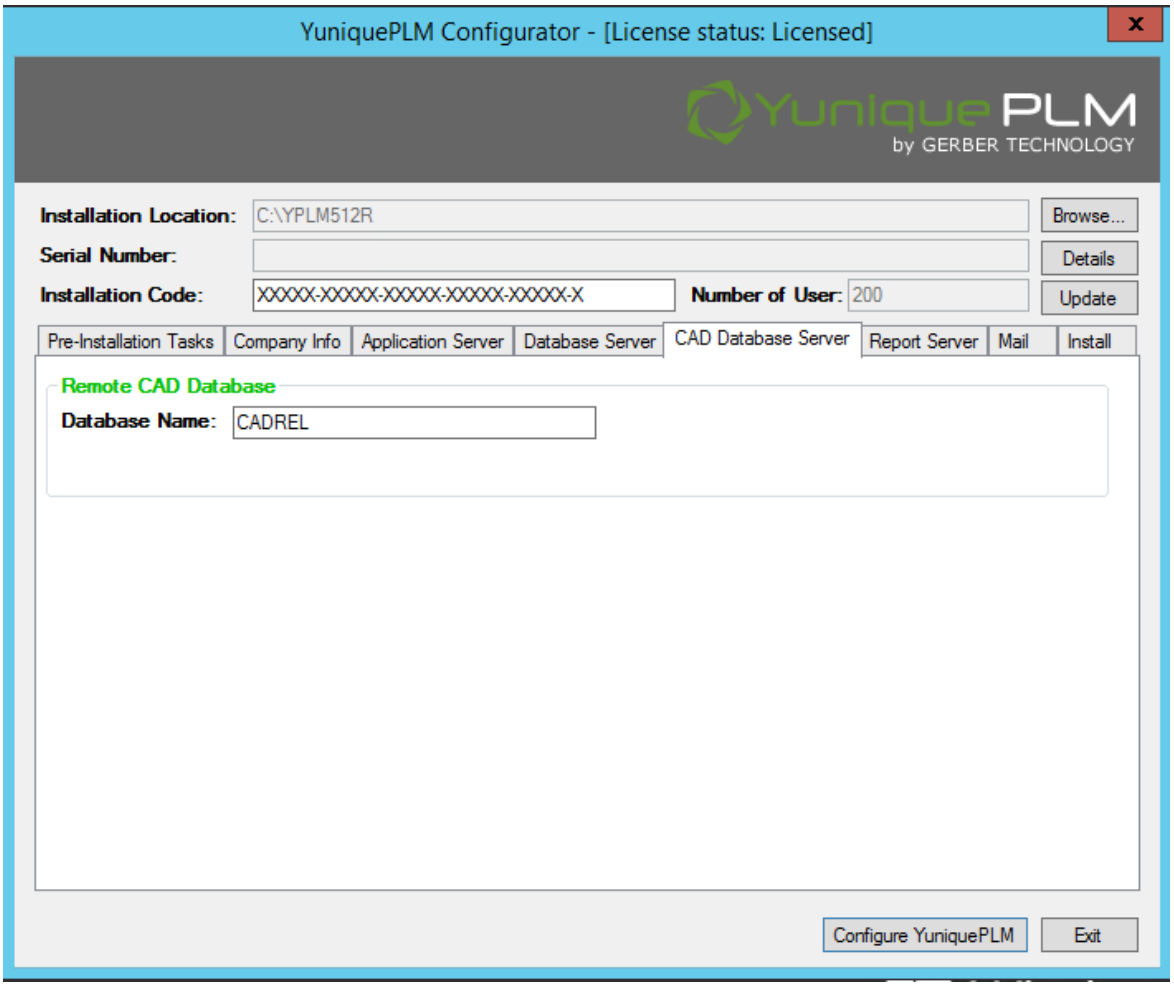


2.1.6. Select the "CAD Database Server" tab.

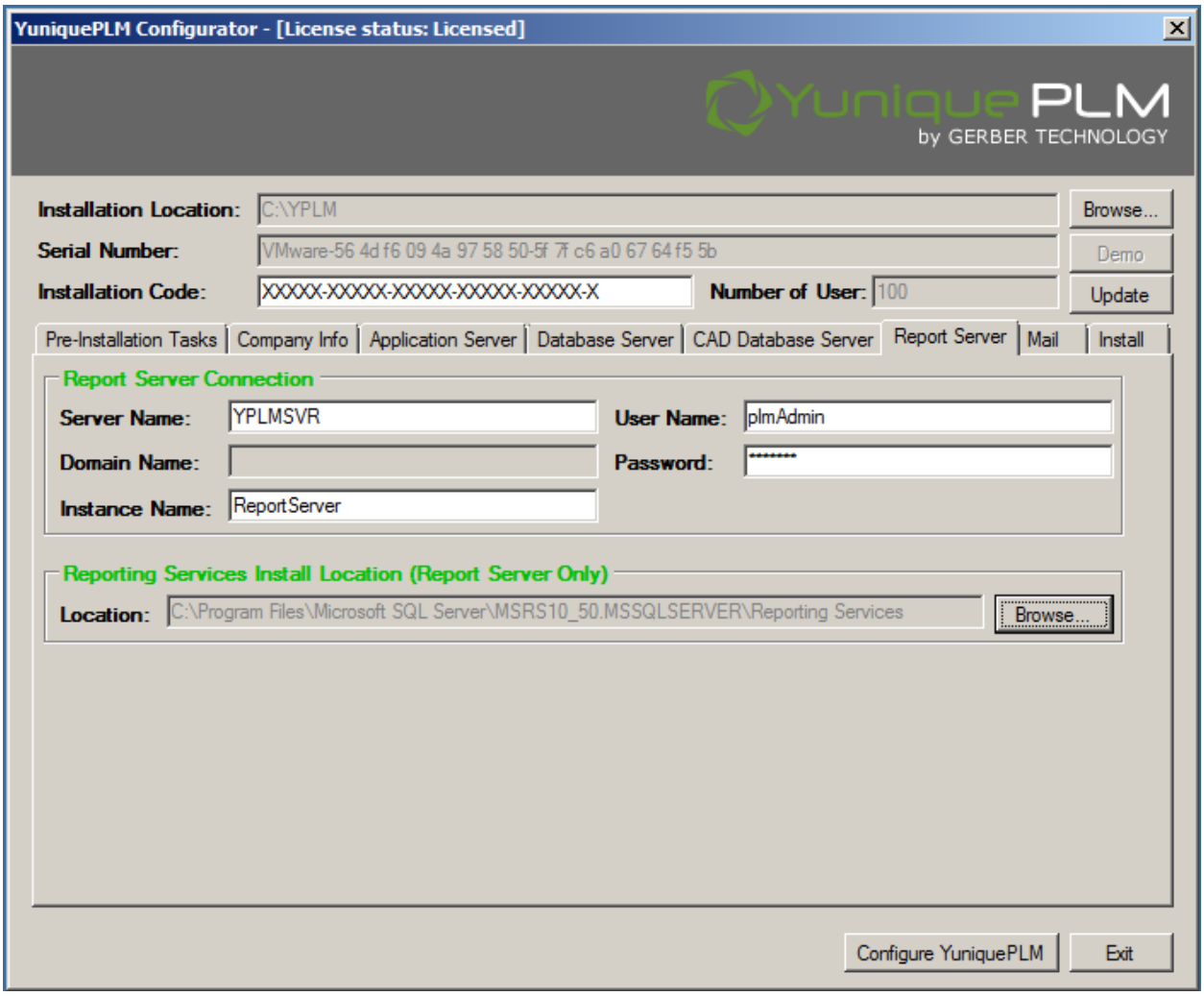
If the YuniquePLM™system will retrieve CAD information from a Gerber AccuMark SQL database, the AccuMark CAD Relational database name is entered on this tab. Otherwise leave everything blank. The YuniquePLM™system can only connect to one AccuMark CAD Relational database. AccuMark workstations must be configured to use AccuMark SQL storage areas and the AccuMark CAD Relational database (refer to AccuMark documentation). The version of AccuMark must be V8.4.1 or greater.

A SQL Linked Server connection must be manually created (see Appendix B).

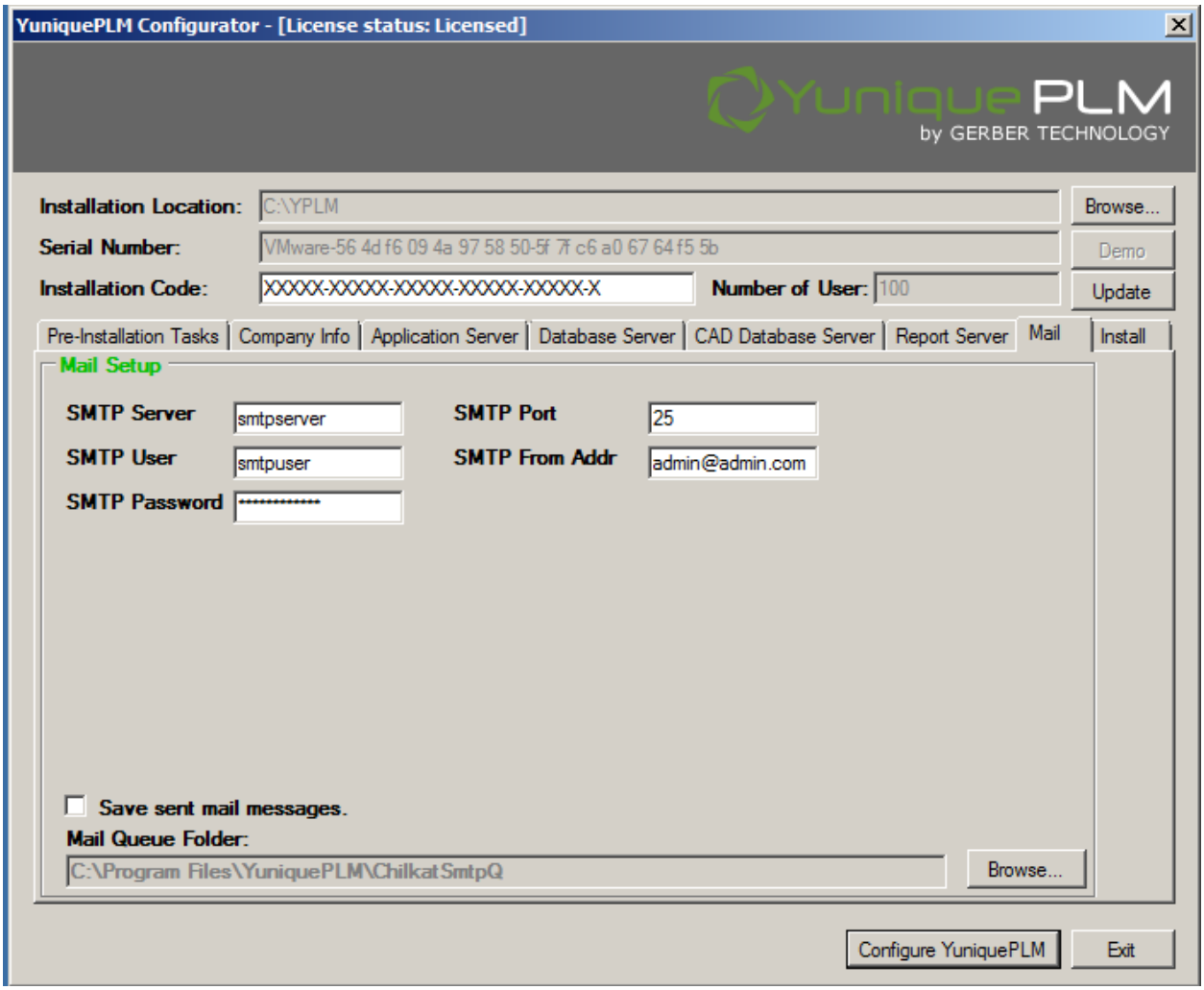
- **Enter the AccuMark CAD Relational database name; leave all the other fields blank.**



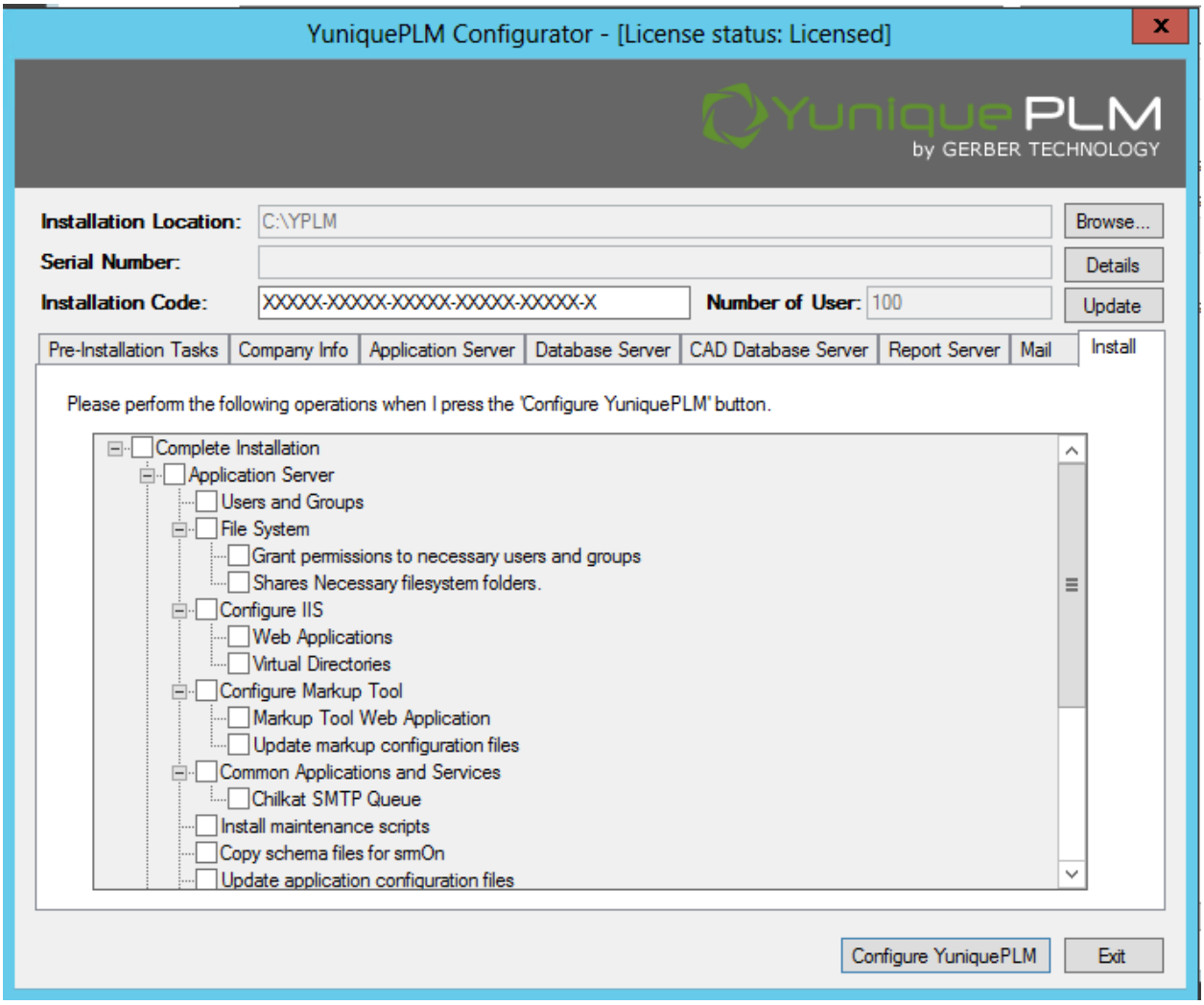
2.1.7. Select the "Report Server" tab. Enter the name of the Report Server. Enter the Report Server Instance name (the default is ReportServer). Enter a Windows User Name and Password that has permissions to create reports on the Report server (usually the website Impersonation account). Press the "Browse" button and select the location of the Microsoft SQL Reporting Services folder.



2.1.8. Select the "Mail" tab. For YuniquePLM™email processing, enter the SMPT Server name and the SMTP User account and password (if required) that will be used for sending emails from YuniquePLM. If no SMTP User account is required, leave the SMTP User and SMTP Password entries blank. Enter the SMTP TCP/IP Port address (normally port 25) and the SMTP "From Address"" that will be used when sending emails. If you wish sent messages to be saved after sending, check the "Save sent mail messages" checkbox.



2.1.9. Press the "Install" tab.



The functions of the various check boxes are as follows:

2.1.9.1. "Complete Installation" – If checked, will execute all operations. This check box is normally not selected.

2.1.9.1.1. "Application Server" – If checked, will execute all operations in the Application Server group. This check box is normally not selected. (Web server)

2.1.9.1.1.1. "Users and Groups" – A local Windows User Account will be created, as defined in the Application Server tab, with the supplied password. A local Windows Group called plmUsers will be created and the local Windows User Account will be added as a member. The local Windows User Account will also be added to the local IIS_IUSRS group. (Web server)

NOTE: Domain accounts and groups must be manually created and added to the IIS_IUSRS group.

2.1.9.1.1.2. "File System" – If checked, will execute all operations in the File System group.

2.1.9.1.1.2.1. "Grant permissions to necessary user groups" – the created plmUsers group will be granted security permissions to the software-Etc folder. (File server)

NOTE: Domain accounts and groups must be manually granted permissions.

2.1.9.1.1.2.2. "Share necessary file system folders" – the file share plmOnShare will be created for the Software-Etc\Share\Image folder, and the plmUsers group will be granted access. The file share plmOnShareRoot will be created for the Software-Etc\Share folder, and the plmUsers group will be granted access. The file share plmOnStore will be created for the Software-Etc\Store folder, and the plmUsers group will be granted access. (File Server)

2.1.9.1.1.3. "Configure IIS" – If checked, will execute all operations in the Configure IIS group.

2.1.9.1.1.3.1. "Web Applications" – YuniquePLM™web applications will be created on the local IIS server. (Web server)

2.1.9.1.1.3.2. "Virtual Directories" – YuniquePLM™web virtual directories will be created on the local IIS server. (File server)

2.1.9.1.2. "Configure Markup Tool" – If checked, will execute all operations in the Configure Markup tool group.

2.1.9.1.2.1. "Markup Tool Web Application" - Installs the YuniquePLM™Markup Tool web application (Web server)

2.1.9.1.2.2. "Update markup configuration files" – Creates a backup of any existing configuration file, then using the information entered on the various setup utility tabs, creates a new Markup Tool application configuration file. The new configuration file is then copied to the YuniquePLM™database. (Web server)

2.1.9.1.3. "Common Applications and Services" – If checked, will execute all operations in the Common Applications and Services group. This check box is normally not selected.

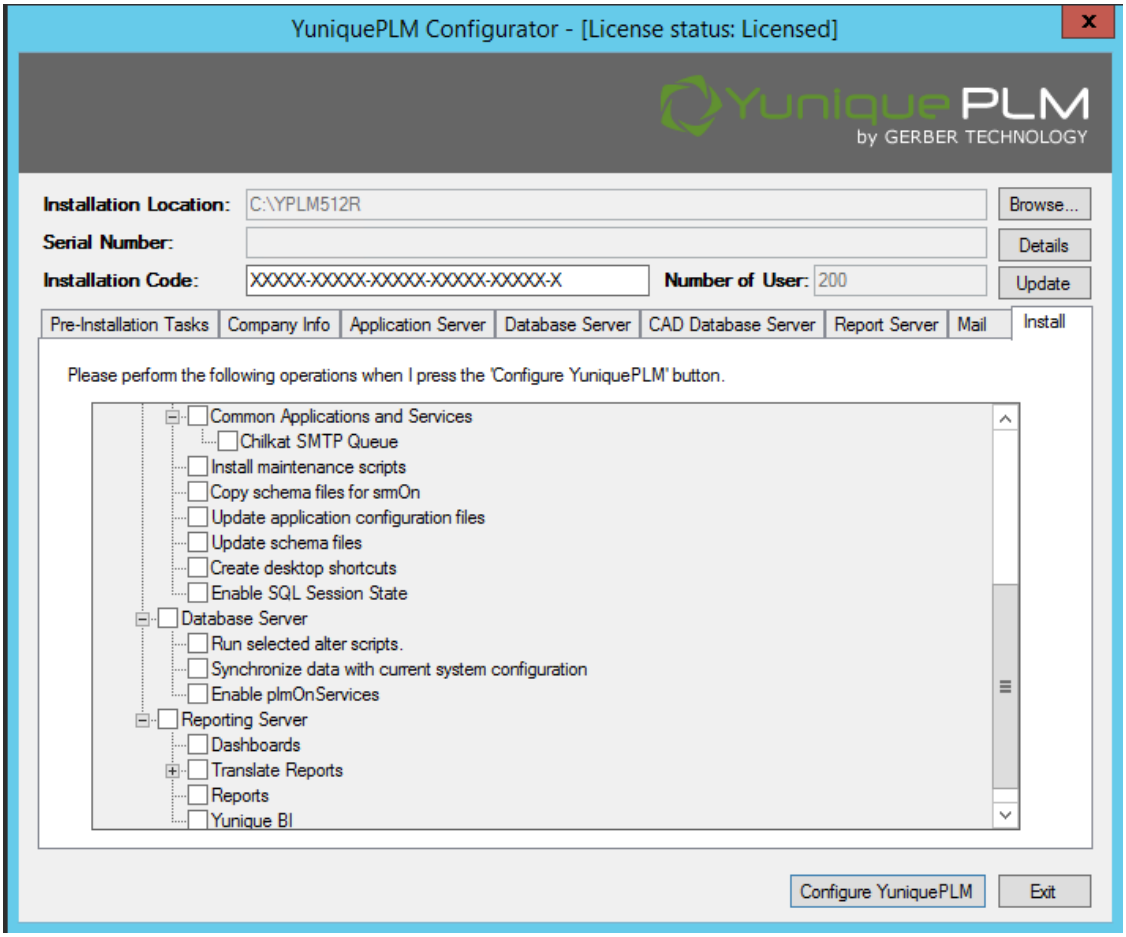
2.1.9.1.3.1.1. "Chilkat SMPT Queue" – Installs the SMTP mail Windows service on the local server. (Web server)

2.1.9.1.3.2. "Install Maintenance Scripts" – Installs a Windows script that will execute at 11PM, Monday through Friday to delete temporary files and folders more than 14 days old in the defined YuniquePLM™TEMP folder.

2.1.9.1.3.3. "Copy schema files for srmOn" – Copies the plmOn schema files (with no overwrite) to a separate schema folder for the srmOn web application. (Web server)

2.1.9.1.3.4. "Update application configuration files" – Creates backups of any existing configuration files, then using the information entered on the various setup utility tabs, creates new YuniquePLM™application configuration files. The new configuration files are then copied to the YuniquePLM™database. (Web servers)

NOTE: The currently logged in Windows User account will be used to access and update the YuniquePLM™database. This Windows User account MUST have dbo permissions to the YuniquePLM™database.



2.1.9.1.3.5. "Update scheme files" – The scheme files will be copied to the YuniquePLM™database (Web server)

2.1.9.1.3.6. "Create desktop shortcuts" – Creates desktop shortcuts for plmOn, YuniqueBI, YuniqueToolkit and srmOn. (Web server)

2.1.9.1.3.7. "Enable SQL Session State" – This option enables ASP.NET session state to store and retrieve values for a user connection. This allows the use of IIS Web Garden features for Large configurations. See section 3.4 for additional configuration requirements.

2.1.9.1.4. "Database Server" – If checked, will execute all operations in the Database Server group. This check box is normally not selected.

2.1.9.1.4.1. "Run selected alter scripts" – will execute the alter scripts selected on the Database Server tab using the Database Server and catalog name and the SQL User Account and Password defined in the Database Administration section. This operation should only be performed when instructed by Yunique Solutions. (Database server)

2.1.9.1.4.2. "Synchronize data with current system configuration" – Various YuniquePLM™database tables will be updated with information entered on the various setup utility tabs. (Database server)

2.1.9.1.4.3. "Enable plmOnServices" – installs plmOnServices Windows Service for YuniquePLM™Line Planning and Batch Queue.

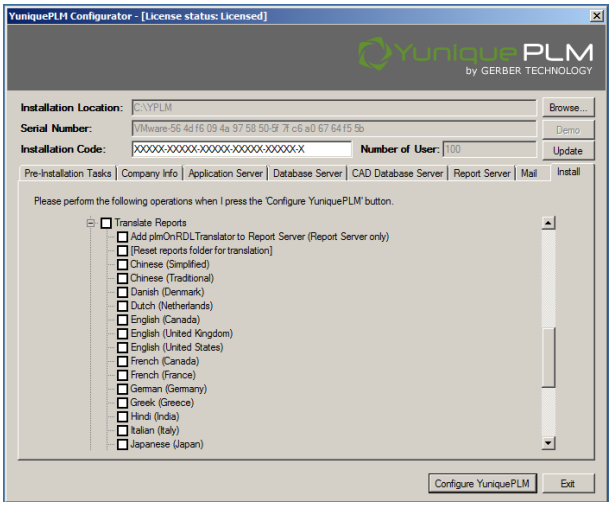
2.1.9.1.5. "Reporting Server" – If checked, will execute all operations in the Reporting Server group. This check box is normally not selected.

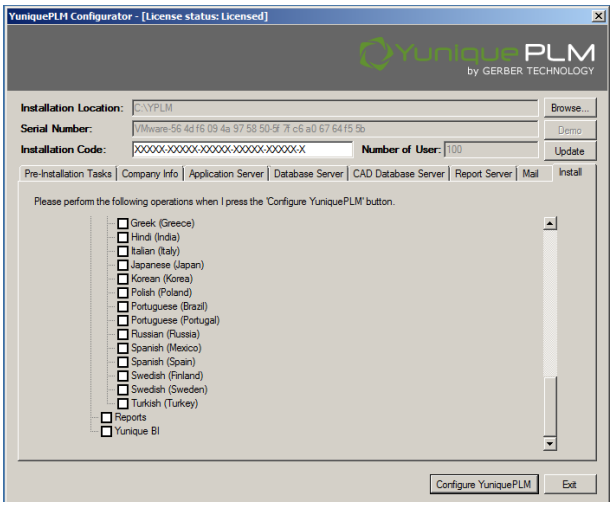
2.1.9.1.5.1. "Dashboards" – The YuniquePLM™ Dashboards folder will be created on the defined SQL Report Server and populated with the standard Dashboard reports. (Report server)

2.1.9.1.5.2. "Translate Reports" – Selects all check boxes in the Translate Reports group. This check box is normally not selected.

2.1.9.1.5.3. Reports – The YuniquePLM™ plmOnReports folder will be created on the defined SQL Report Server and populated with the standard reports for each language selected. (Report server)

2.1.9.1.5.4. YuniqueBI – The YuniquePLM™ YuniqueBI folder will be created on the defined SQL Report Server and populated with the standard YuniqueBI reports. (Report server)





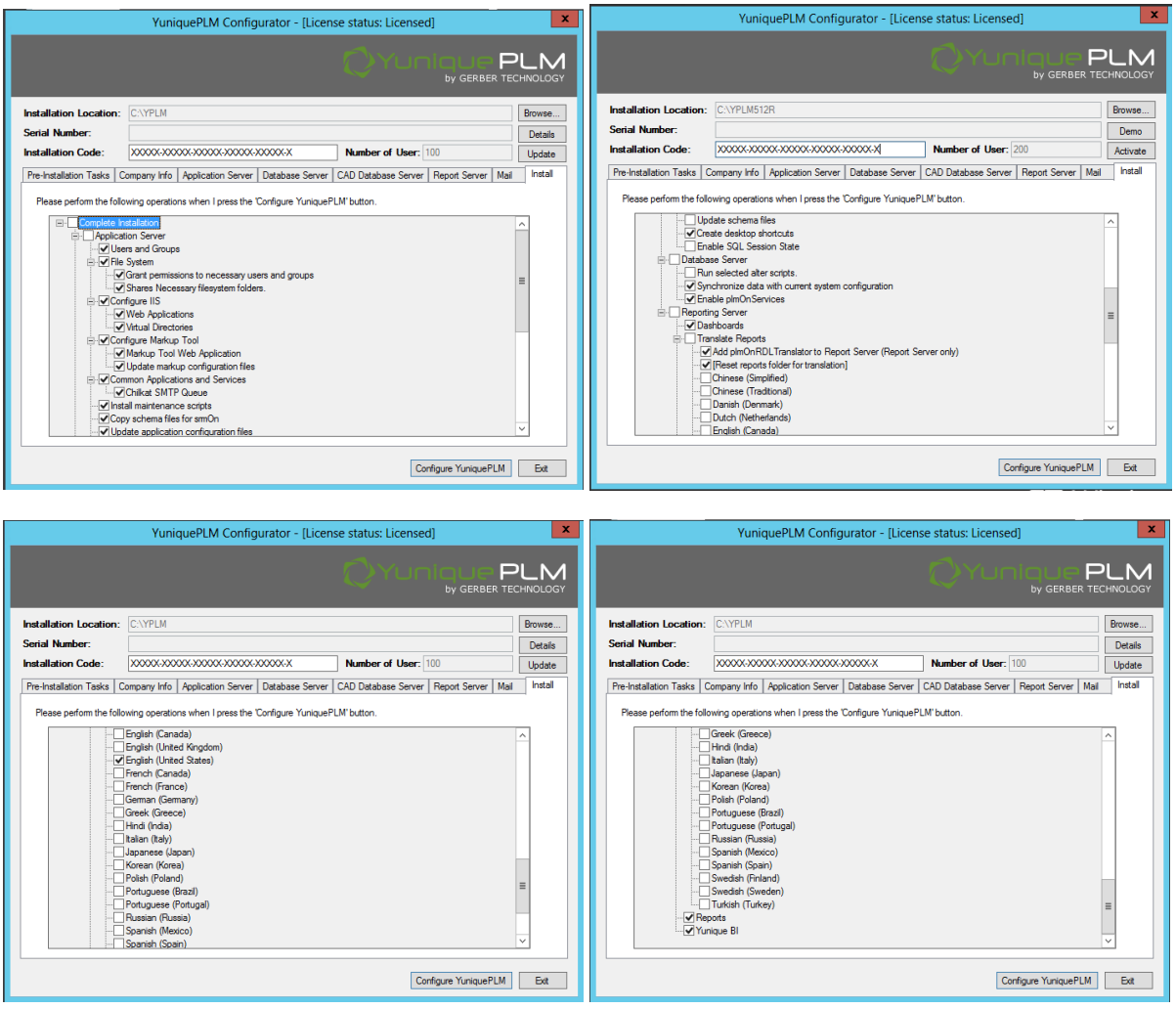
In the "Translate Reports" section:

2.1.9.1.5.5. "Add plmOnRDL Translator to Report Server (Report Server only)" – adds a program module to the Microsoft Reporting Server folder that is used in conjunction with translated reports. (Report Server)

2.1.9.1.5.5.1. "(Reset reports folder for translation)" – resets the reports folder for installing translated reports. (Report Server)

2.1.9.1.5.5.2. "(Languages) – check the boxes of the desired languages required for the Reports folder. (Report Server)

2.1.10. Verify that all information entered on the various setup tabs is correct. To execute a complete install of YuniquePLM™on a single server, check the following boxes, and then press the "Configure YuniquePLM" button to begin installation. The title bar will display the current installation step being processed and the step text will turn green when complete.

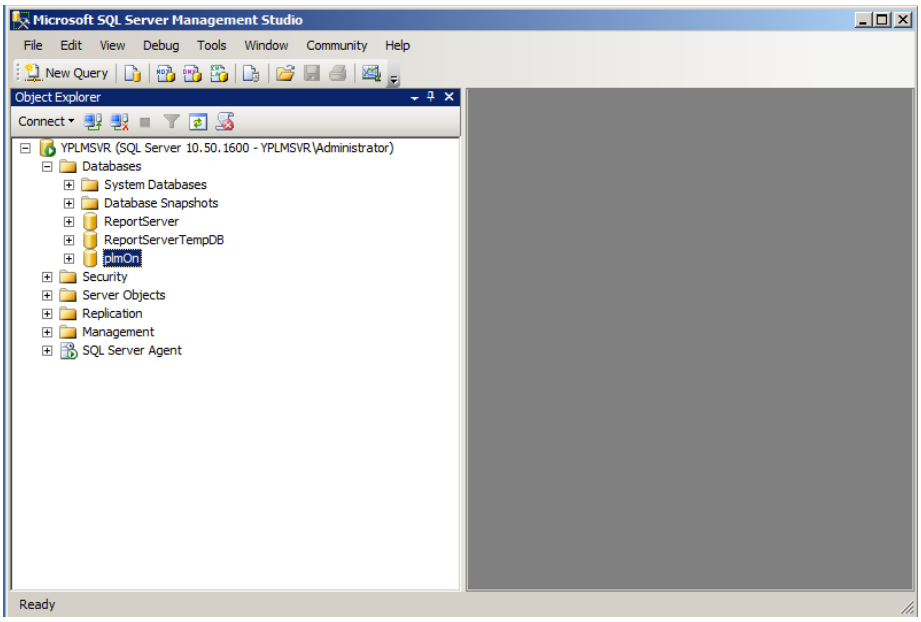


2.1.11. When all steps have been processed, a "Complete!" message will be displayed. Press OK. Desktop ICONs for plmOn, YuniqueBI, YuniqueToolkit and srmOn should be displayed on the desktop.

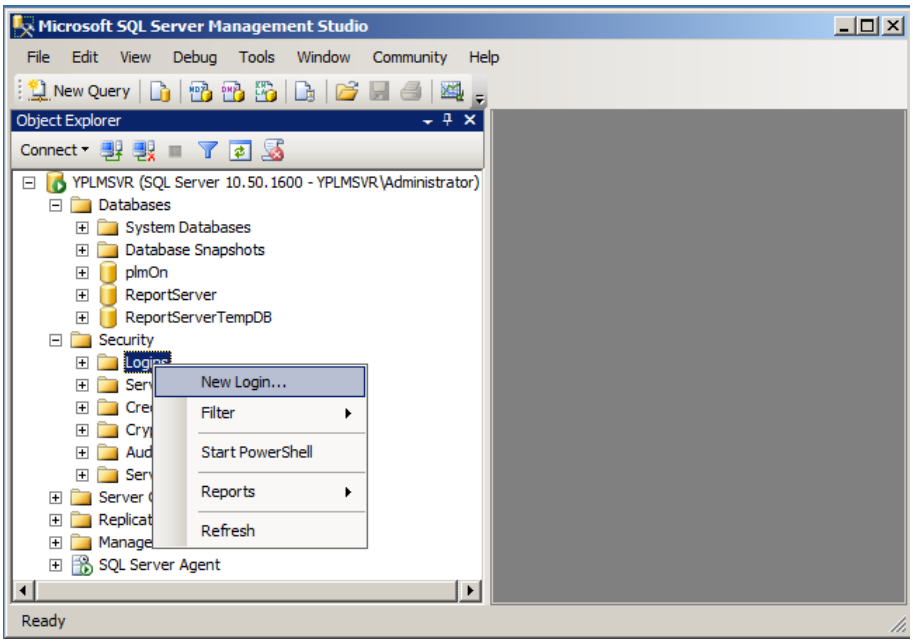
3. Verification and Additional Configuration Steps

3.1. SQL Server Configuration Steps

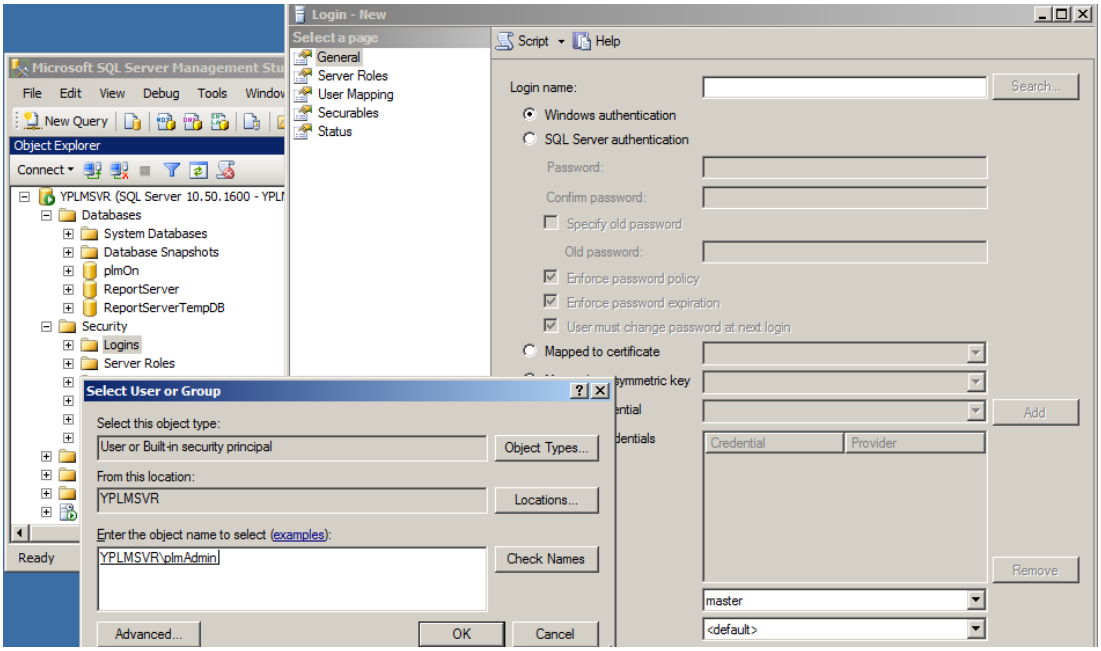
3.1.1. Open SQL Server Management Studio and in the Object Explorer pane expand “Databases”. Verify that the YuniquePLM™database was created.



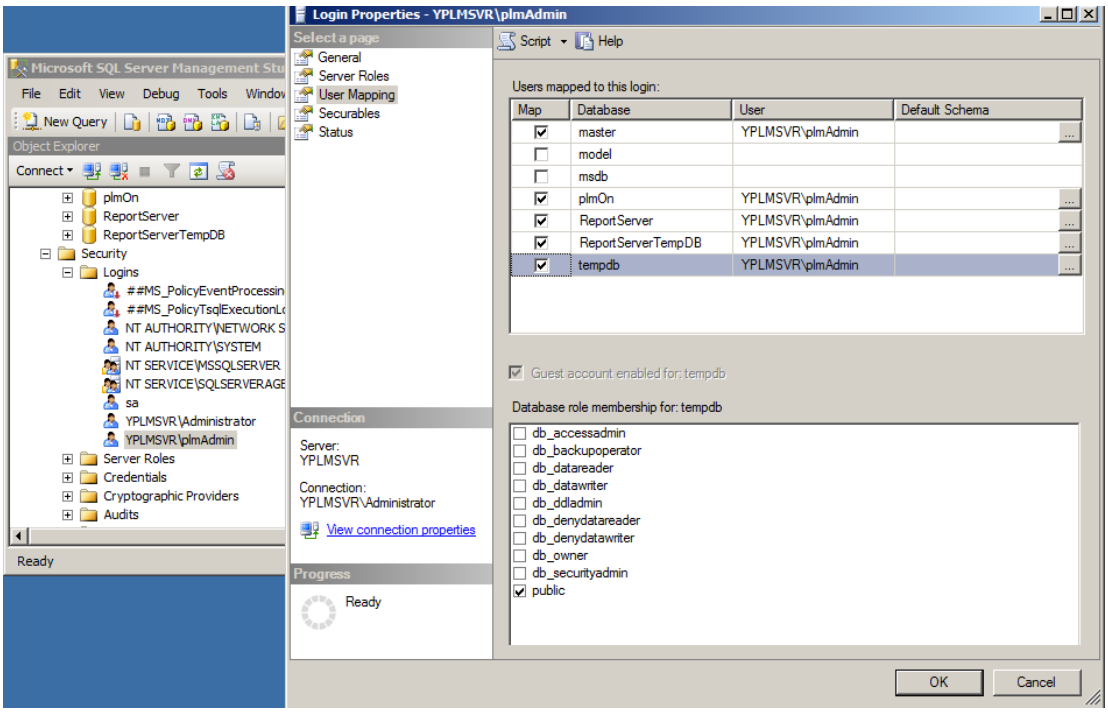
3.1.2. In the Object Explorer pane expand “Security” and “Logins”. Right click on “Logins” and select “New Login…”



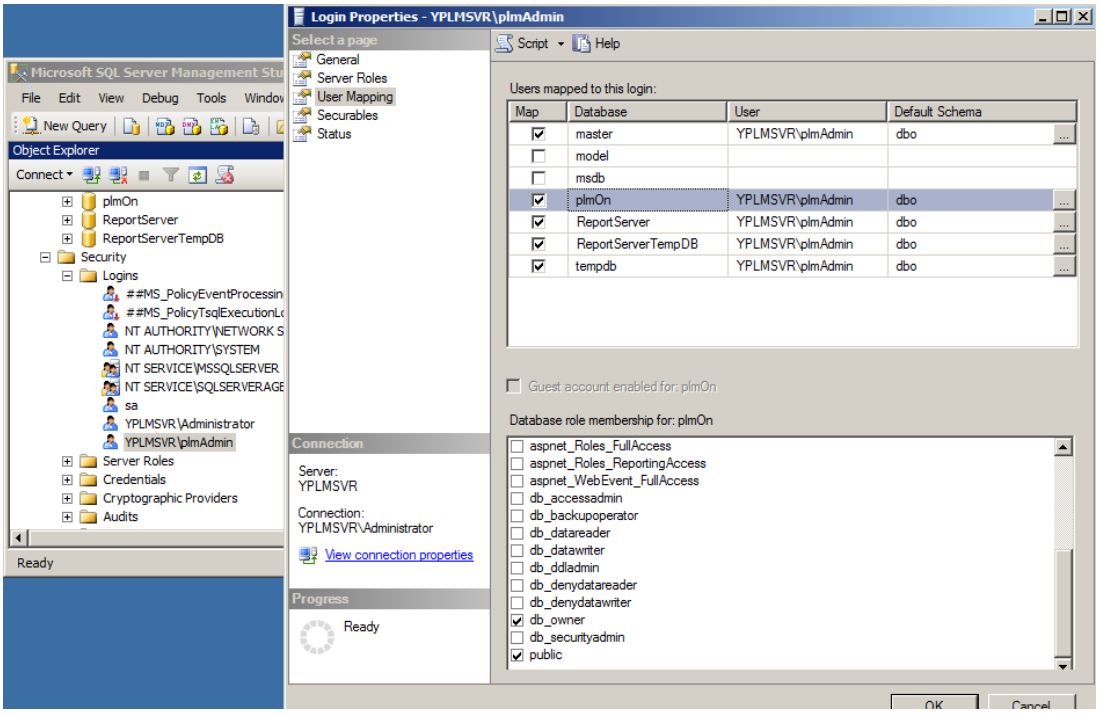
3.1.3. Press the "Search" button, and in the "Select User or Group" dialog box, enter the user name that was created by the YuniquePLM™setup utility. Press "Check Names" and then press OK.



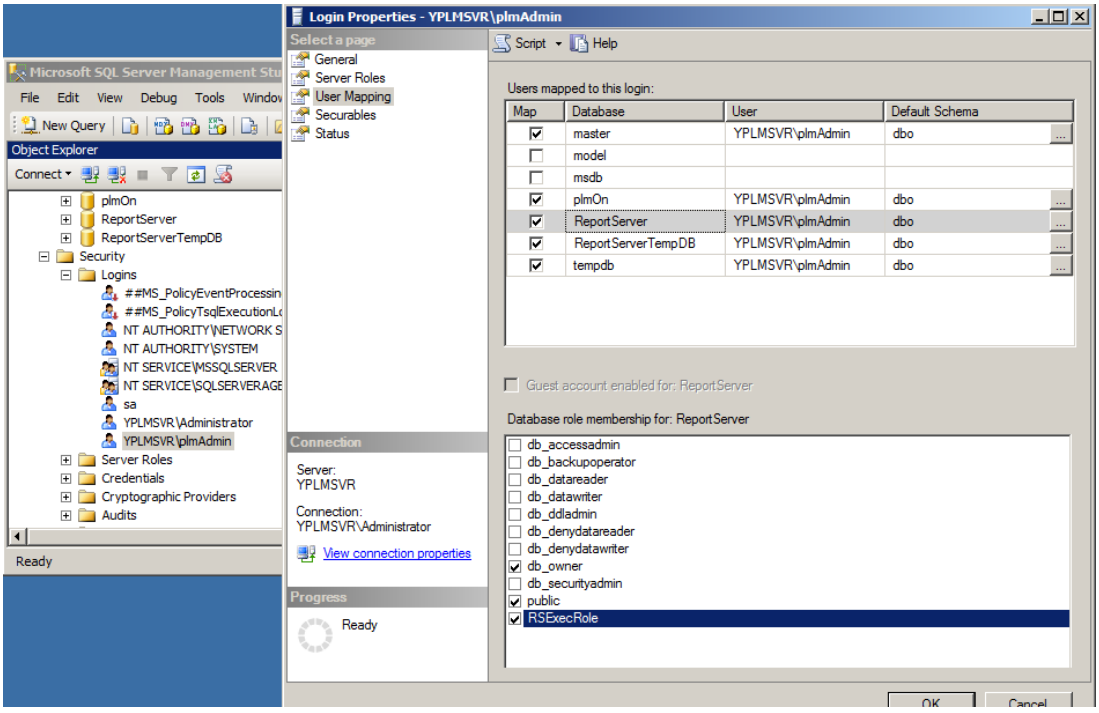
3.1.4. Double click on the user name in the Object Explorer windows and select "User Mapping" in the Login Properties dialog box. Check Master, the YuniquePLM™database, ReportServer, ReportServerTempDB, and tempdb databases.



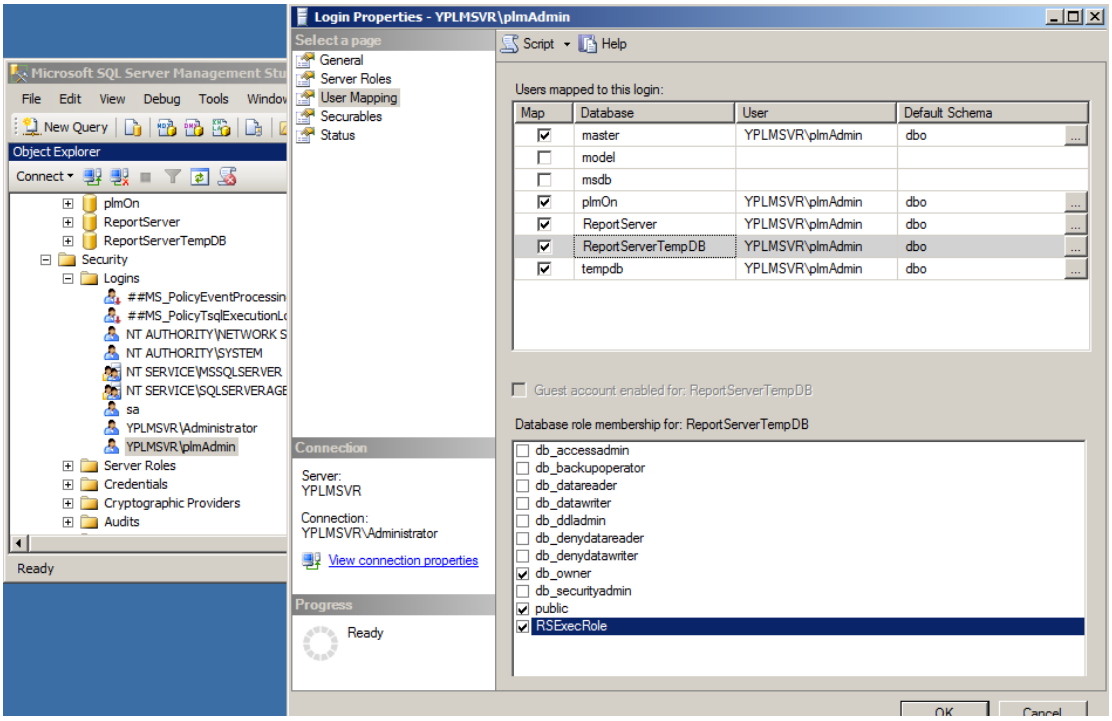
3.1.5. Select the YuniquePLM™database and make sure db_owner and public are checked.



3.1.6. Select the ReportServer database and make sure db_owner, public, and RSExecRole are checked.

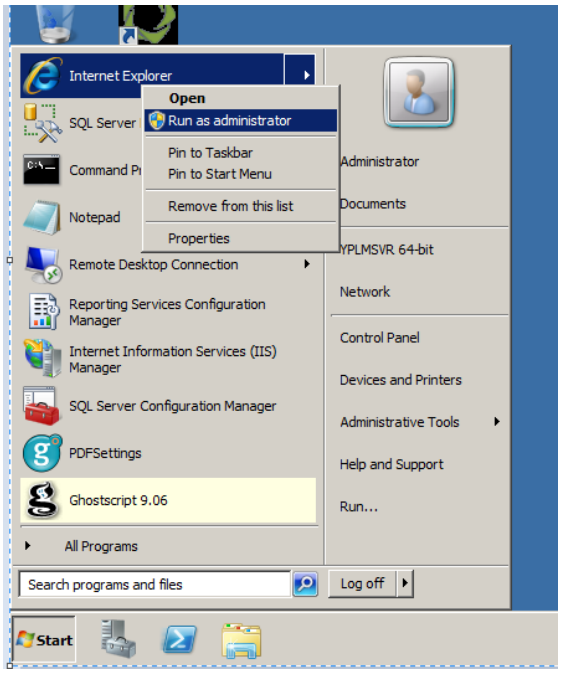


3.1.7. Select the ReportServerTempDB database and make sure db_owner, public, and RSExecRole are checked. Press OK to save the settings.

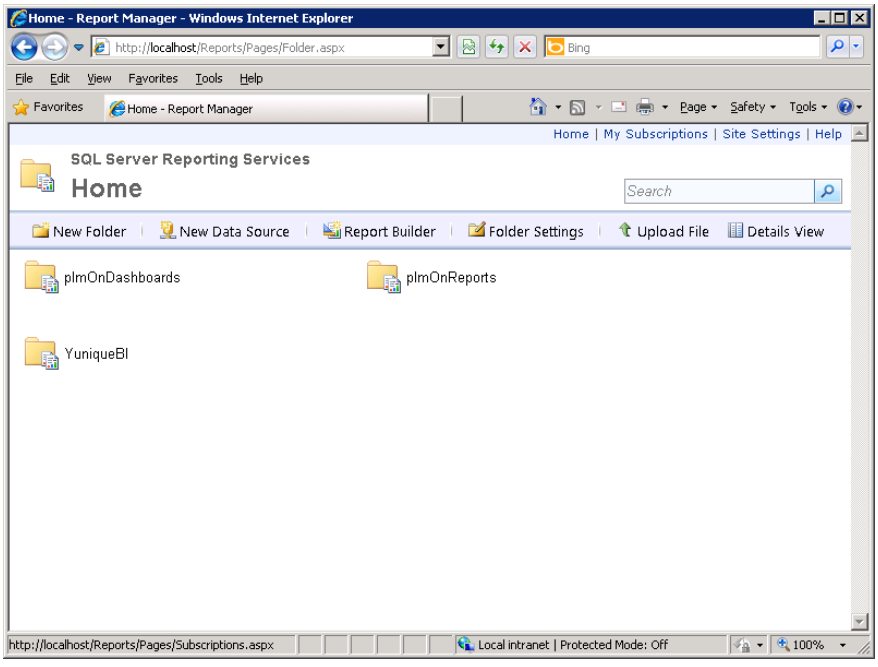


3.2. SQL Server Reporting Services Configuration

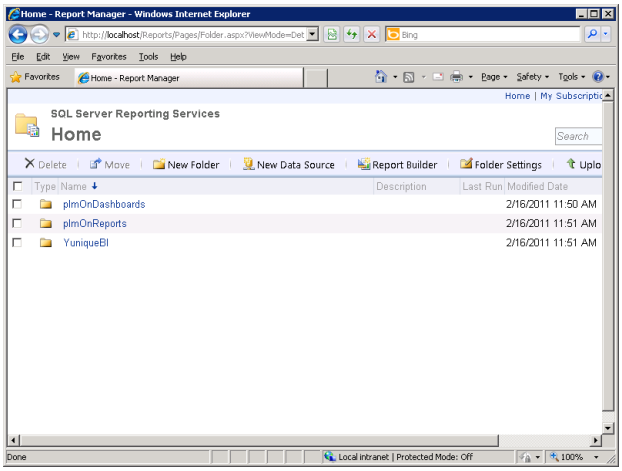
3.2.1. On the Desktop, press the Start button, right click on Internet Explorer and select "Run as administrator"

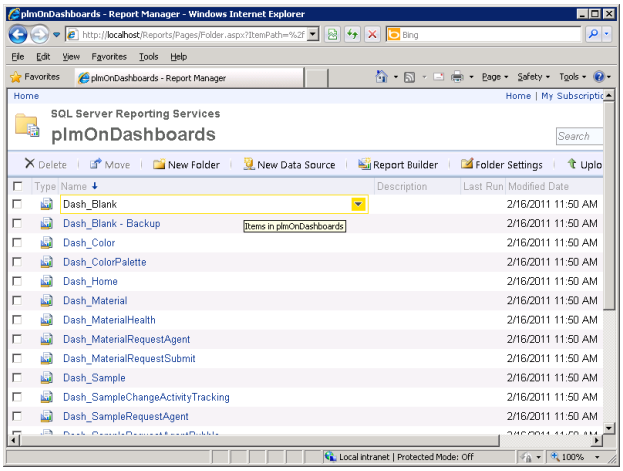


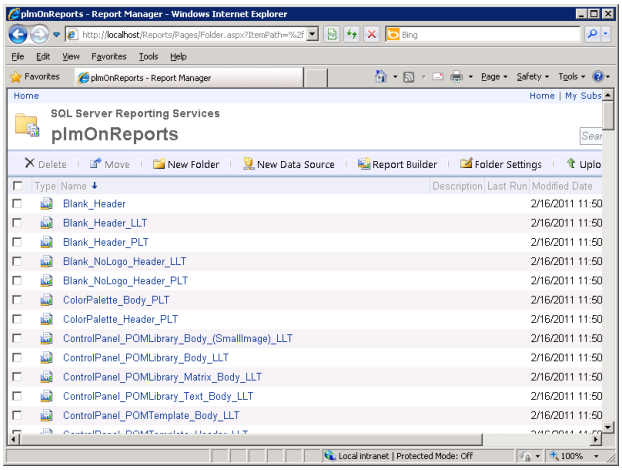
3.2.2. Type in the url http://localhost/reports and verify that report folders plmOnDashboards, plmOnReports, and YuniqueBI have been created.

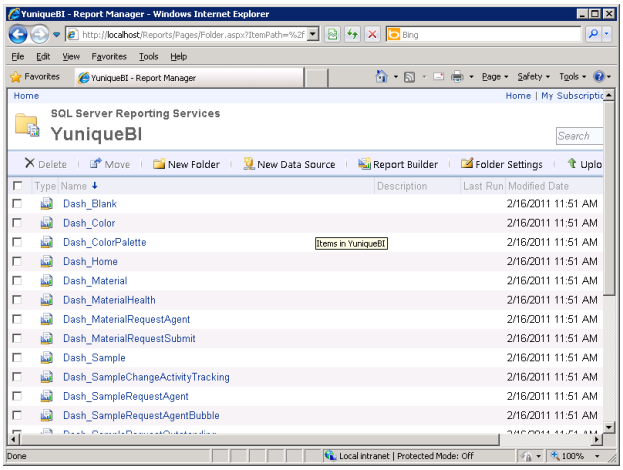


3.2.3. Press “Detail View”, and then select each folder to verify reports are installed.

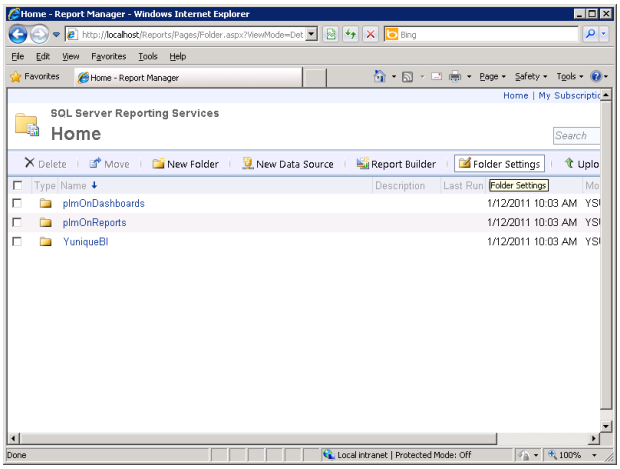


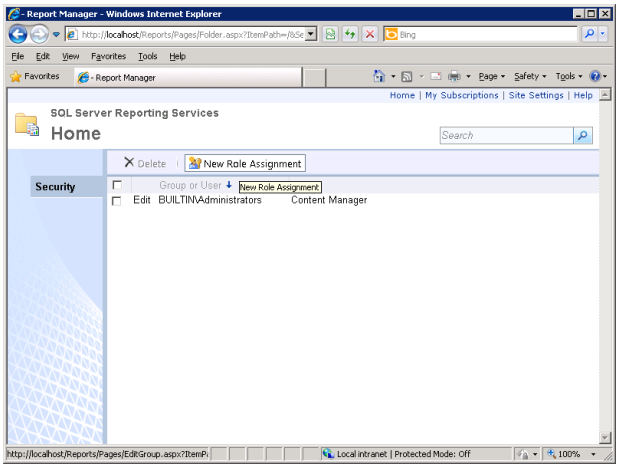




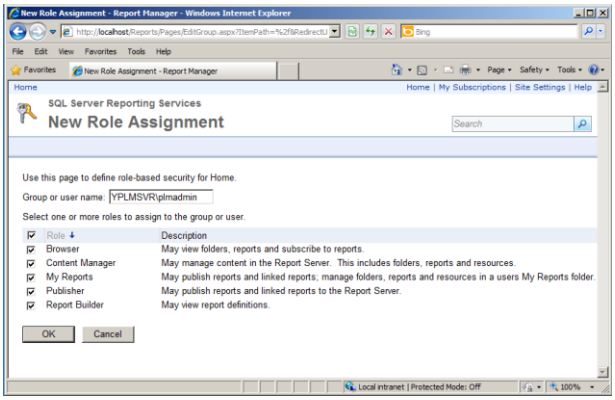


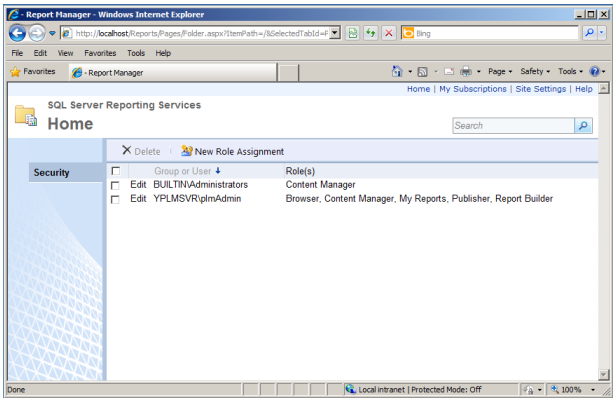
3.2.4. Select “Folder Settings”, then select “New Role Assignment”





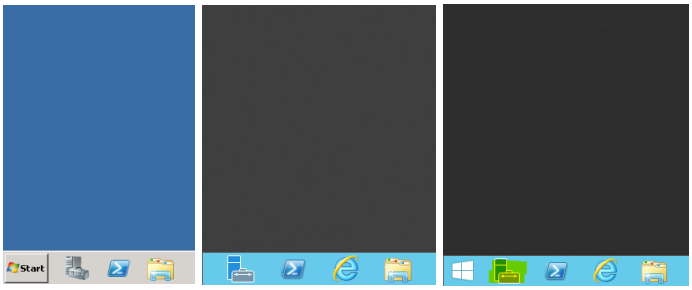
3.2.5. In the “Group or user name” box enter the server\username of the user that was created by the YuniquePLM™setup utility (website impersonation account). Check all role boxes and press OK.



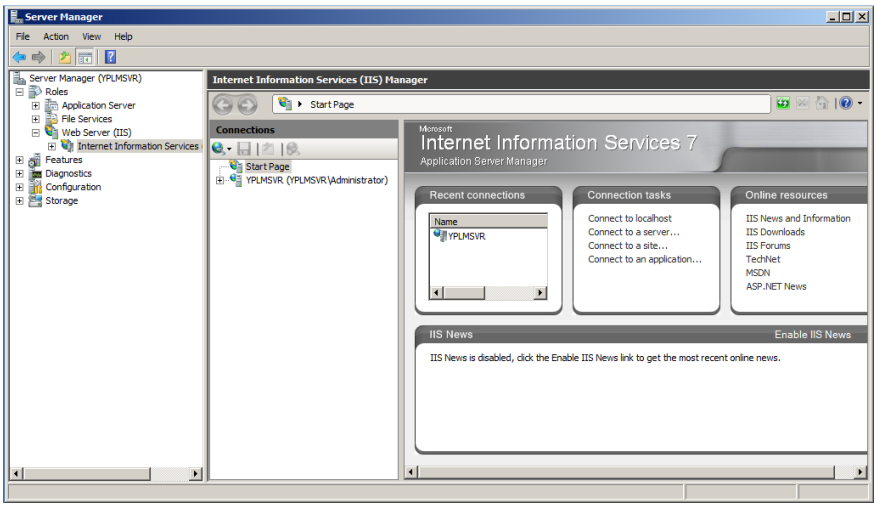


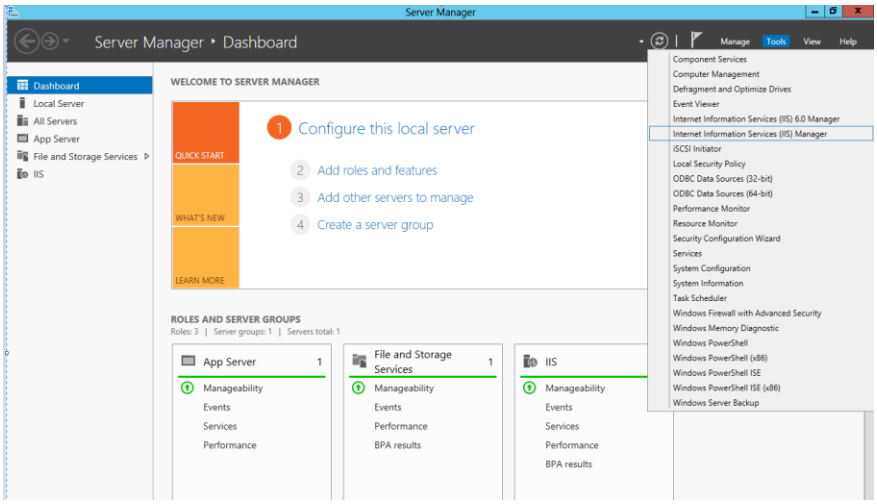
3.3. Server Manager Configuration

3.3.1. On the desktop, click on the Server manager ICON in the lower left screen.

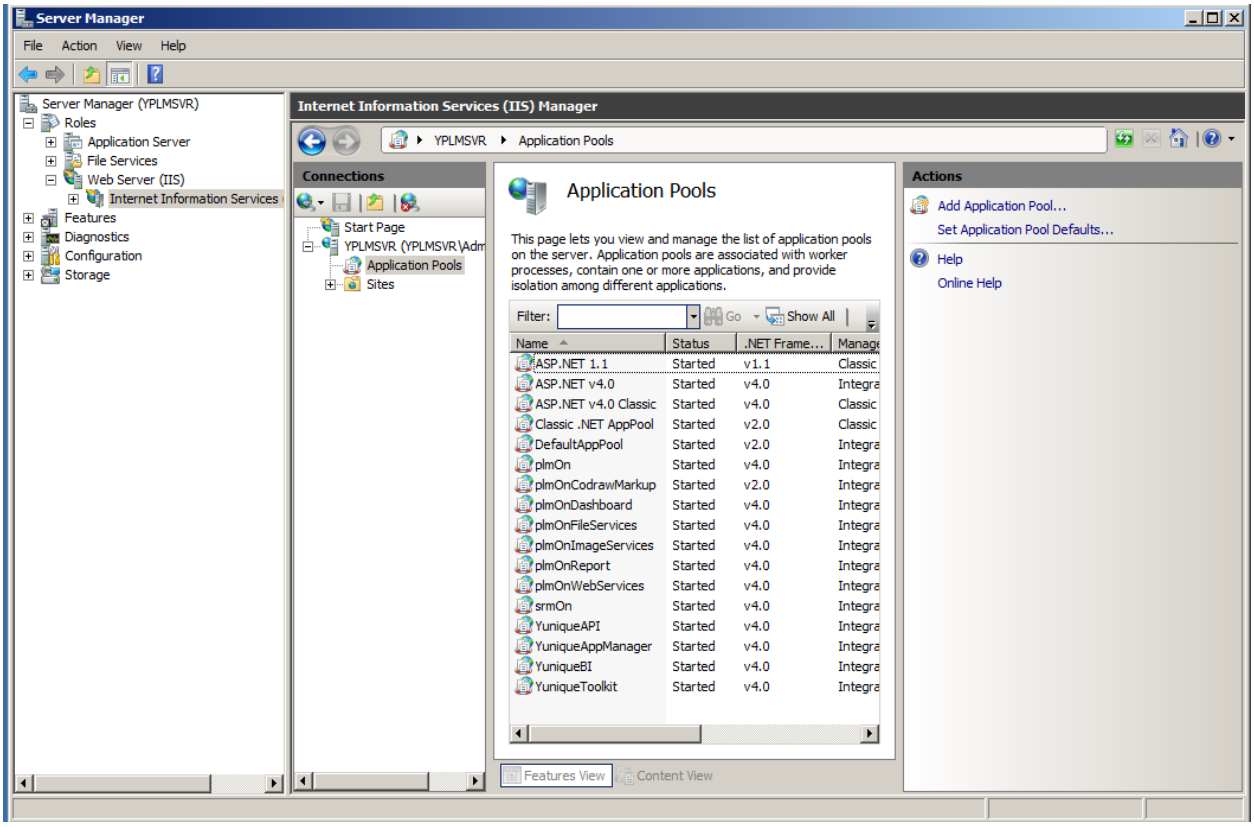


3.3.2. Expand “Roles”, “Web Server”, click on “Internet Information Server” for Server 2008R2. Select “Tools” and “Internet Information Services (IIS) Manager” for Server 2012 / 2012R2

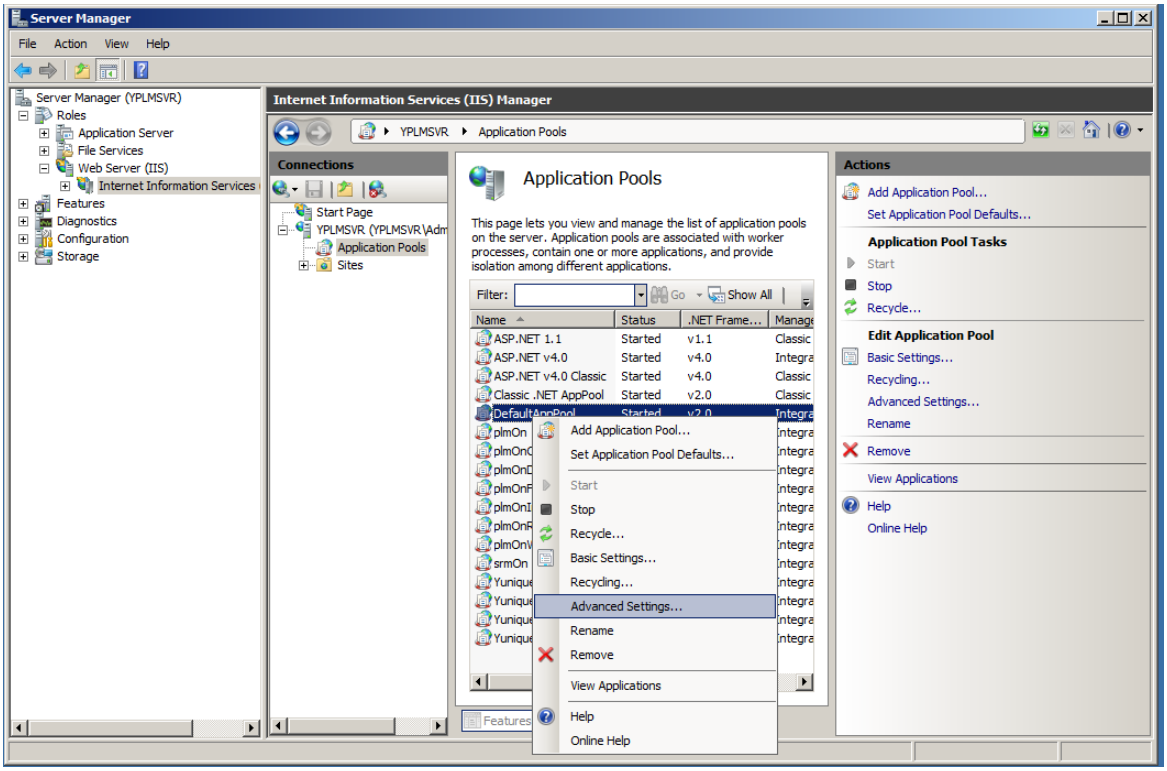




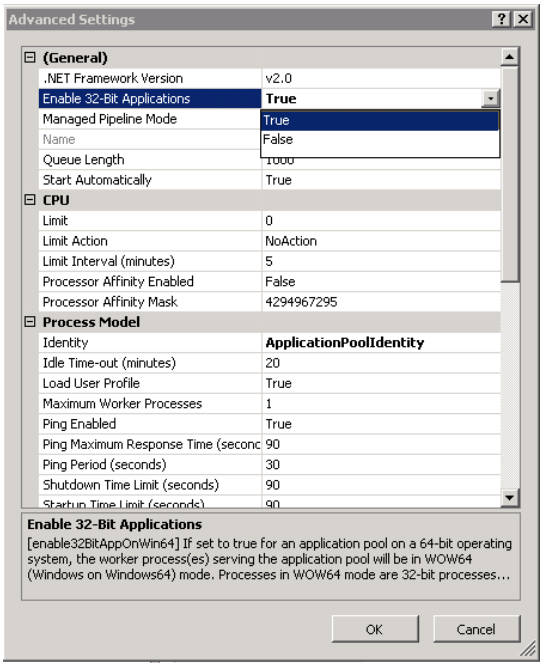
3.3.3. In the Connections pane, expand the server, and expand “Sites”. Verify the websites have been created. Click on “Application Pools” and verify that the application pools have been created.



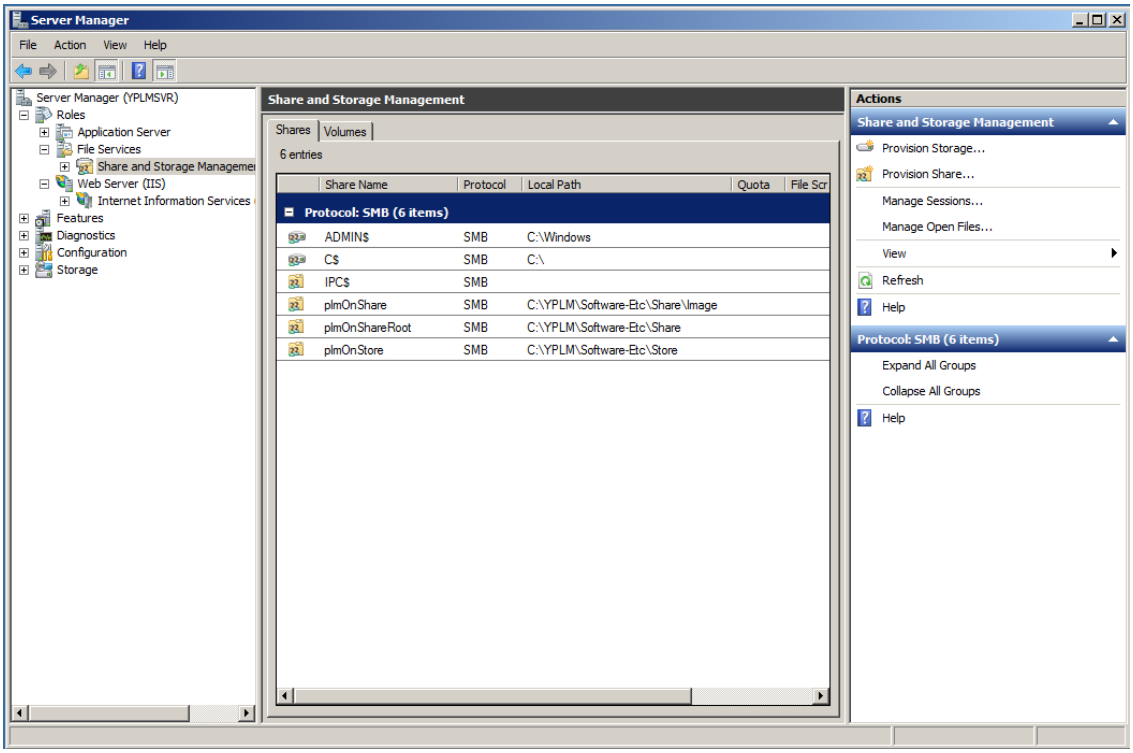
3.3.4. In the "Application Pools" pane, right click on "DefaultAppPool" and select "Advanced Settings"

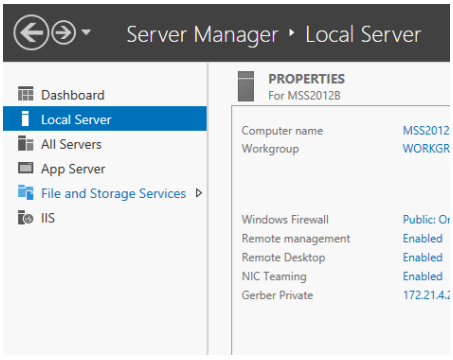


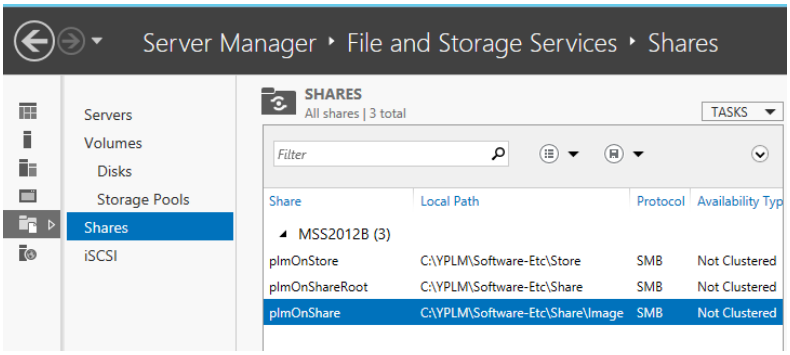
3.3.5. Select "Enable 32-bit Applications" and verify that "True" is set. Select "Load User Profile" and verify that "True" is set.



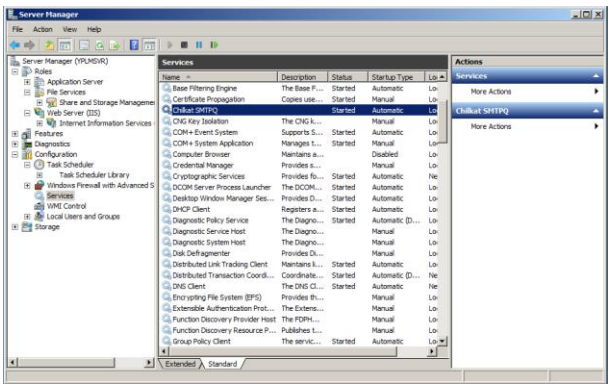
3.3.6. Expand “File Services” and select “Share and Storage Management” in 2008R2 Server Manager. In Server Manager 2012 / 2012R2 select “File and Storage Services”, the select “Shares. Verify that “plmOnShare” and “plmOnStore” shares have been created.

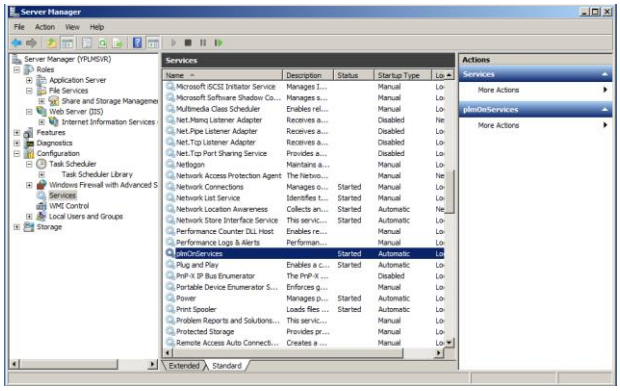


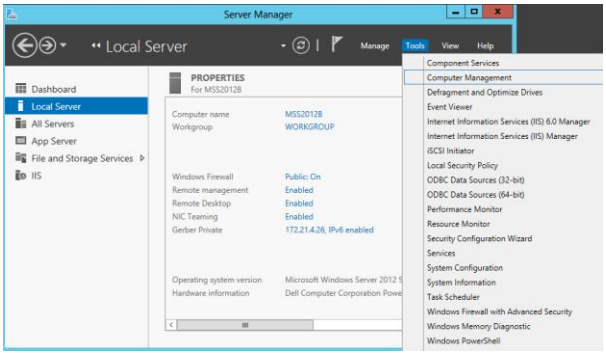


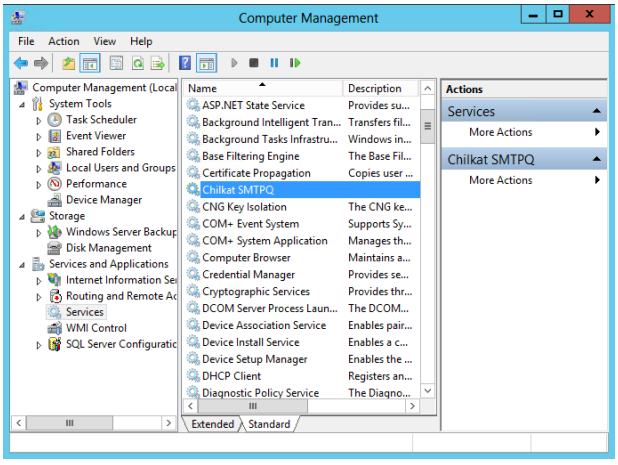


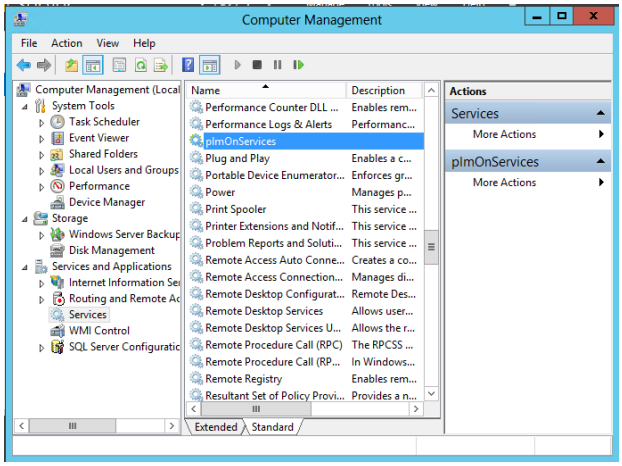
3.3.7. In Service Manager 2008R2 click on “Services” and verify that services “Chilkat SMTPQ” and plmOnServices have been created. In Server Manager 2012 select “Tools” and “Computer Management”



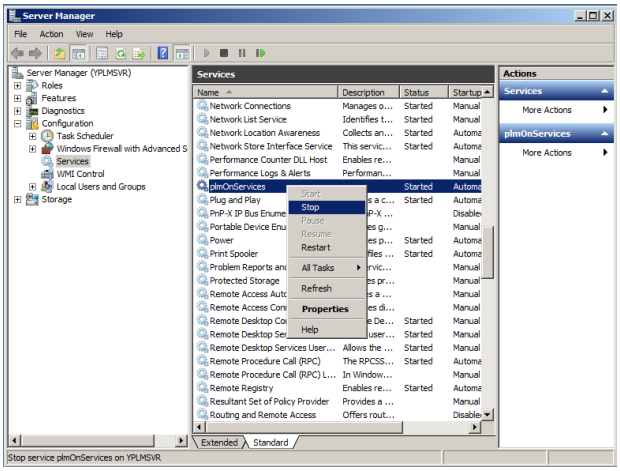


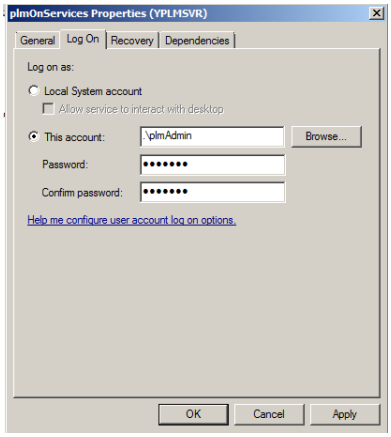


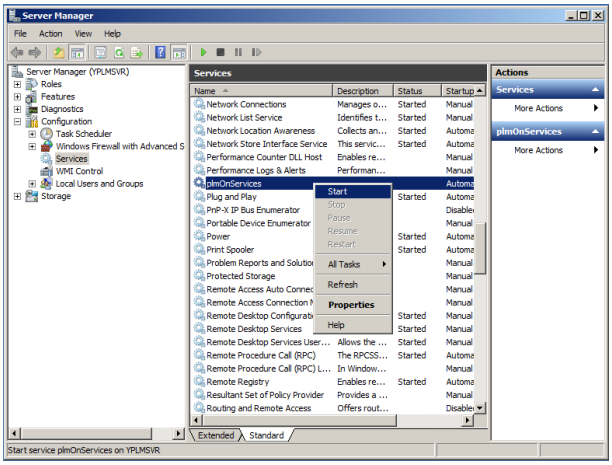




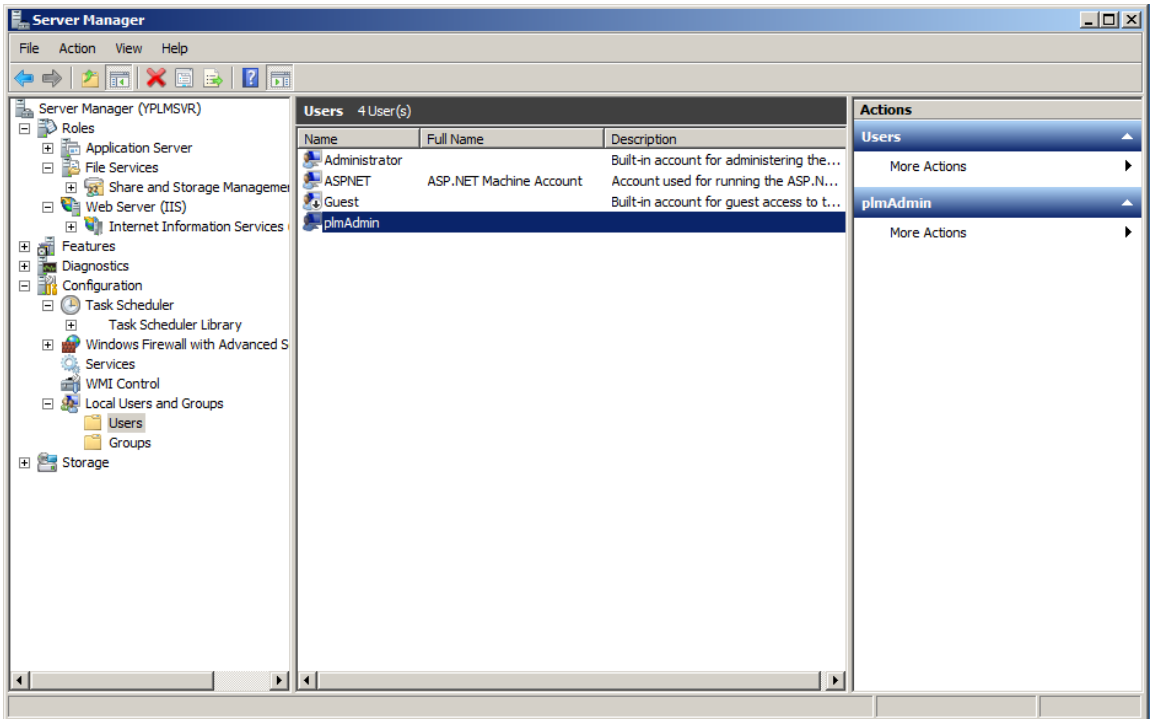
3.3.8. The logon account used by plmOnServices will have to be changed to the YuniquePLM™impersonation account. Right click on plmOnServices and select “Stop”. Right click on plmOnServices and select “Properties”. Select “This account:”, enter the information for the YuniquePLM™impersonation account, and press the “OK” button. Right click on plmOnServices and select “Start”.

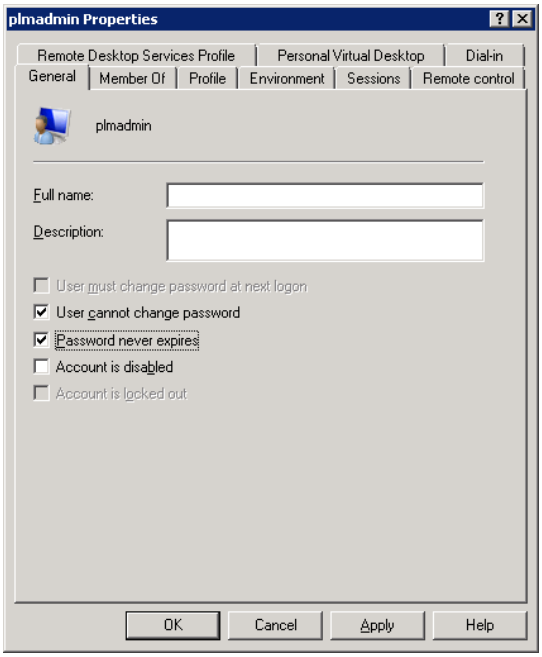




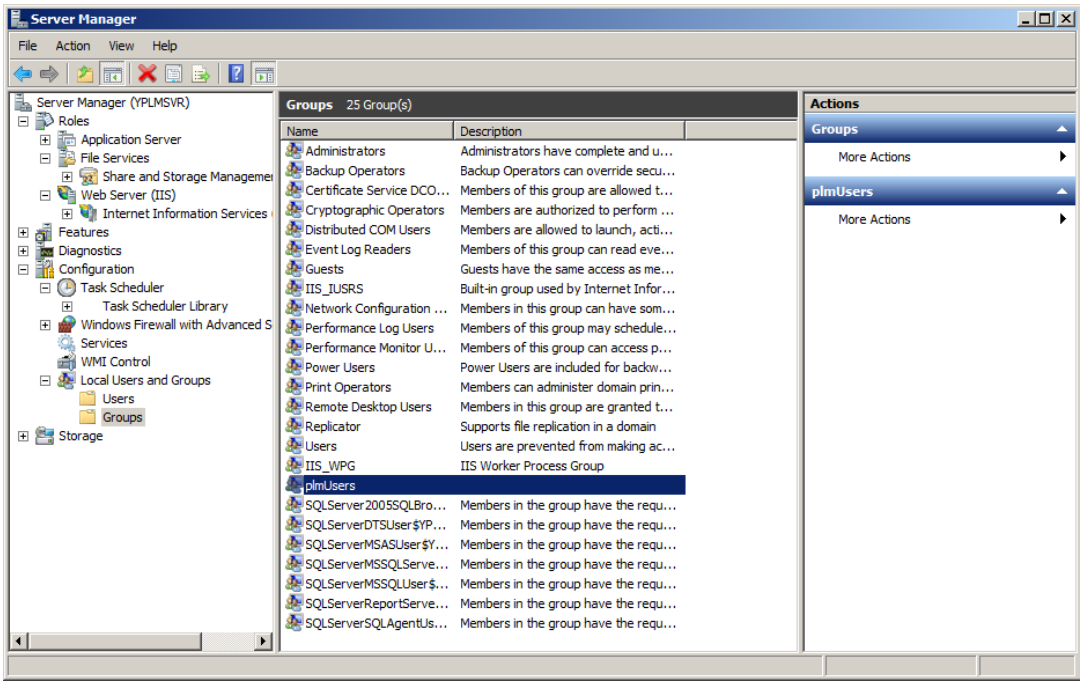


3.3.9. Click on “Users” and verify that the website impersonation account has been created. Double click on the account name, check “Password never expires” and press the OK button.

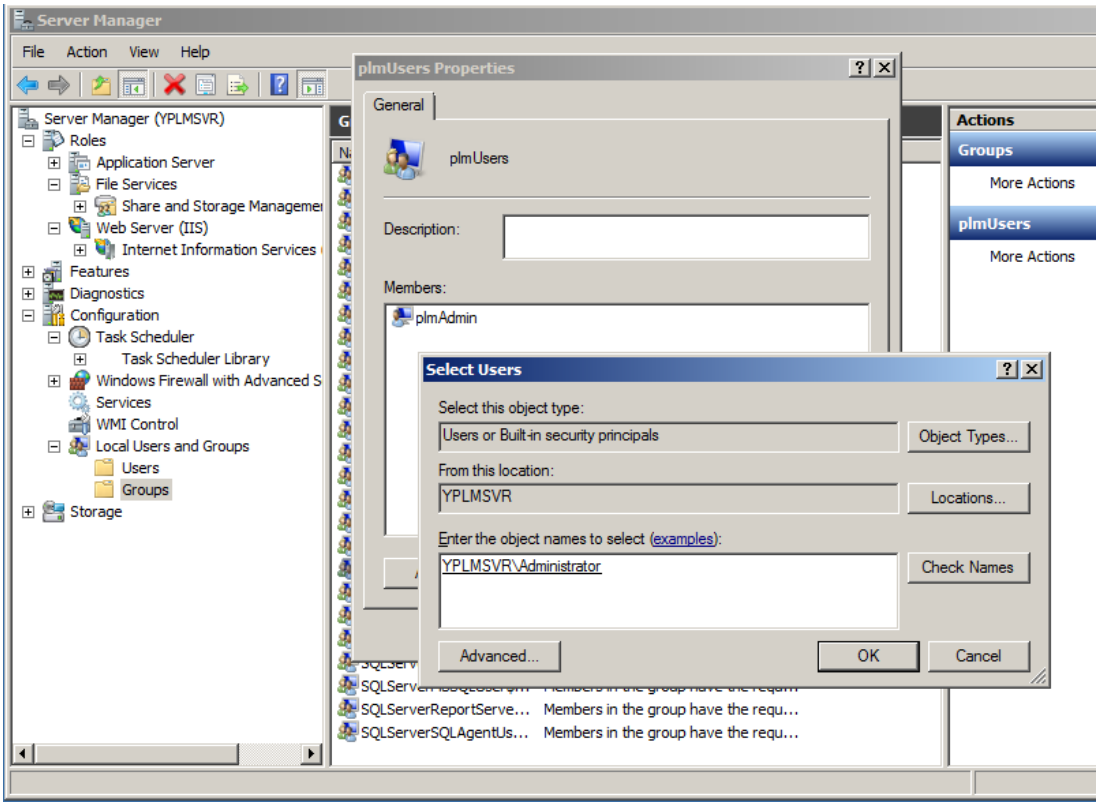




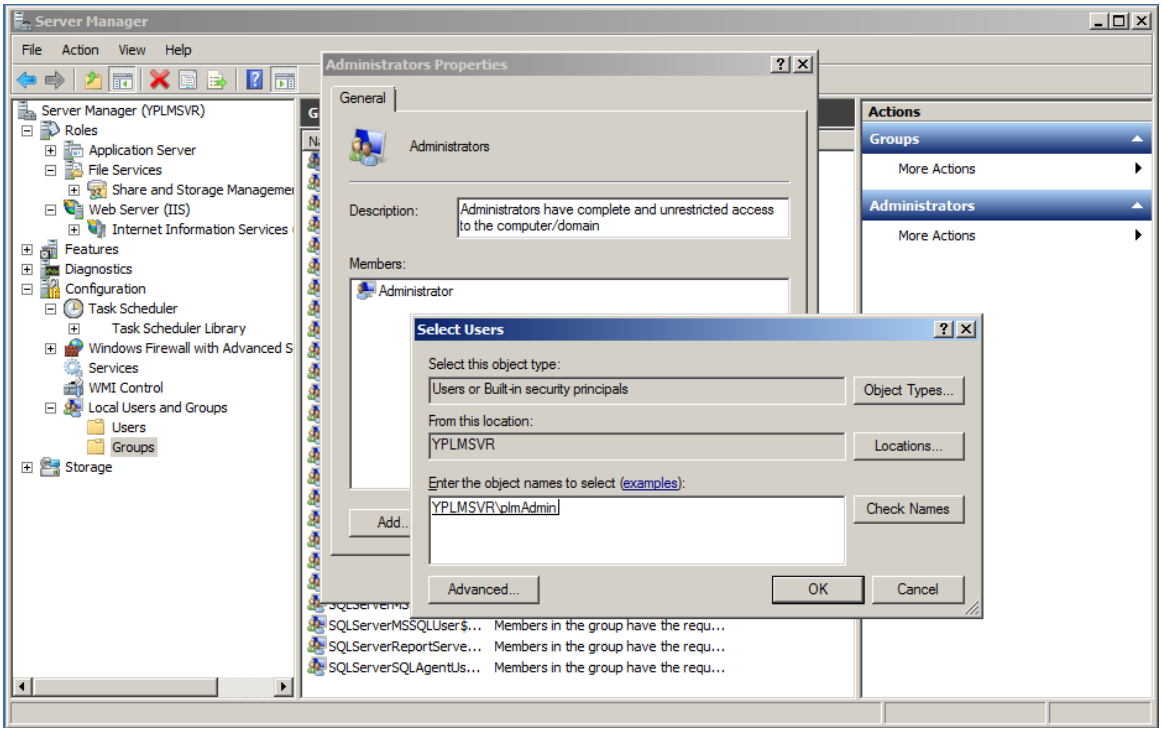
3.3.10. Click on “Groups” and verify that the “plmUsers” group has been created.



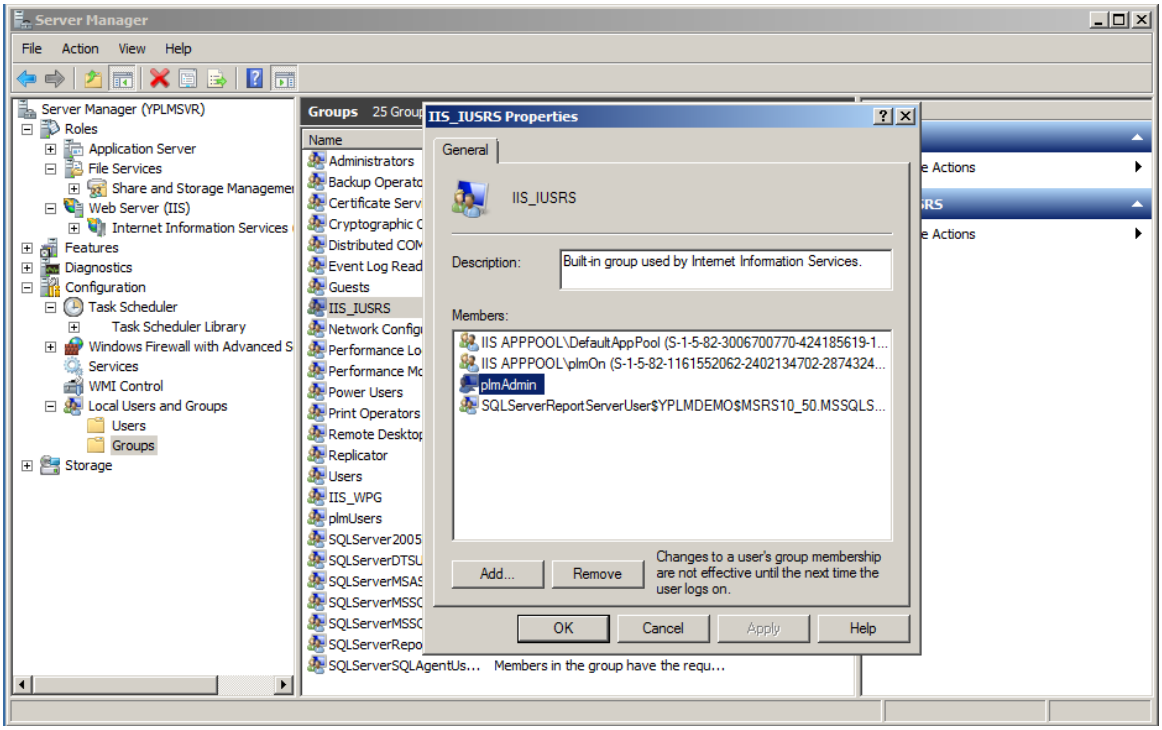
3.3.11. Double click on the “plmUsers” group and add the current logged in user in order to test Image Editing functionality. You will have to reboot for this to take effect.



3.3.12. Double click on the "Administrators" group and add the website impersonation account.



3.3.13. Double click on the "IIS_USRS" group and verify that the website impersonation account is a member.

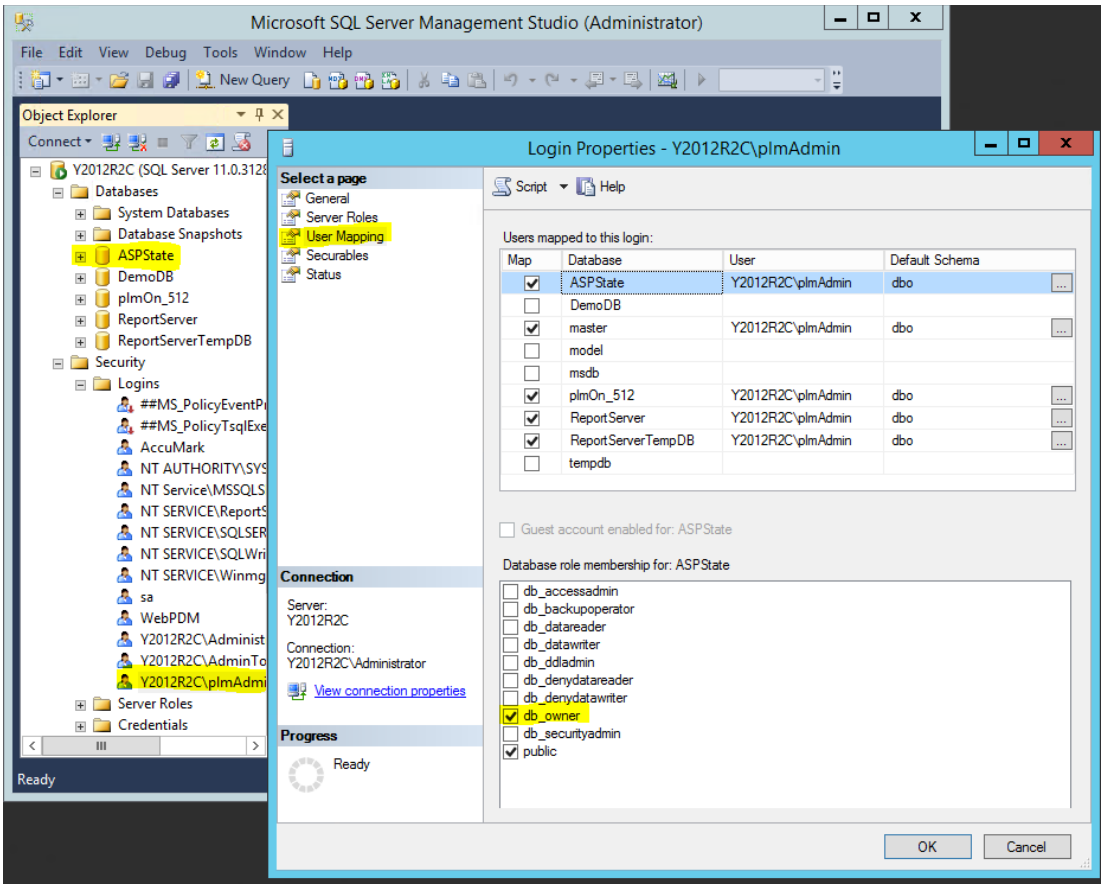


3.4. ASP.NET session state / IIS Web Garden Support

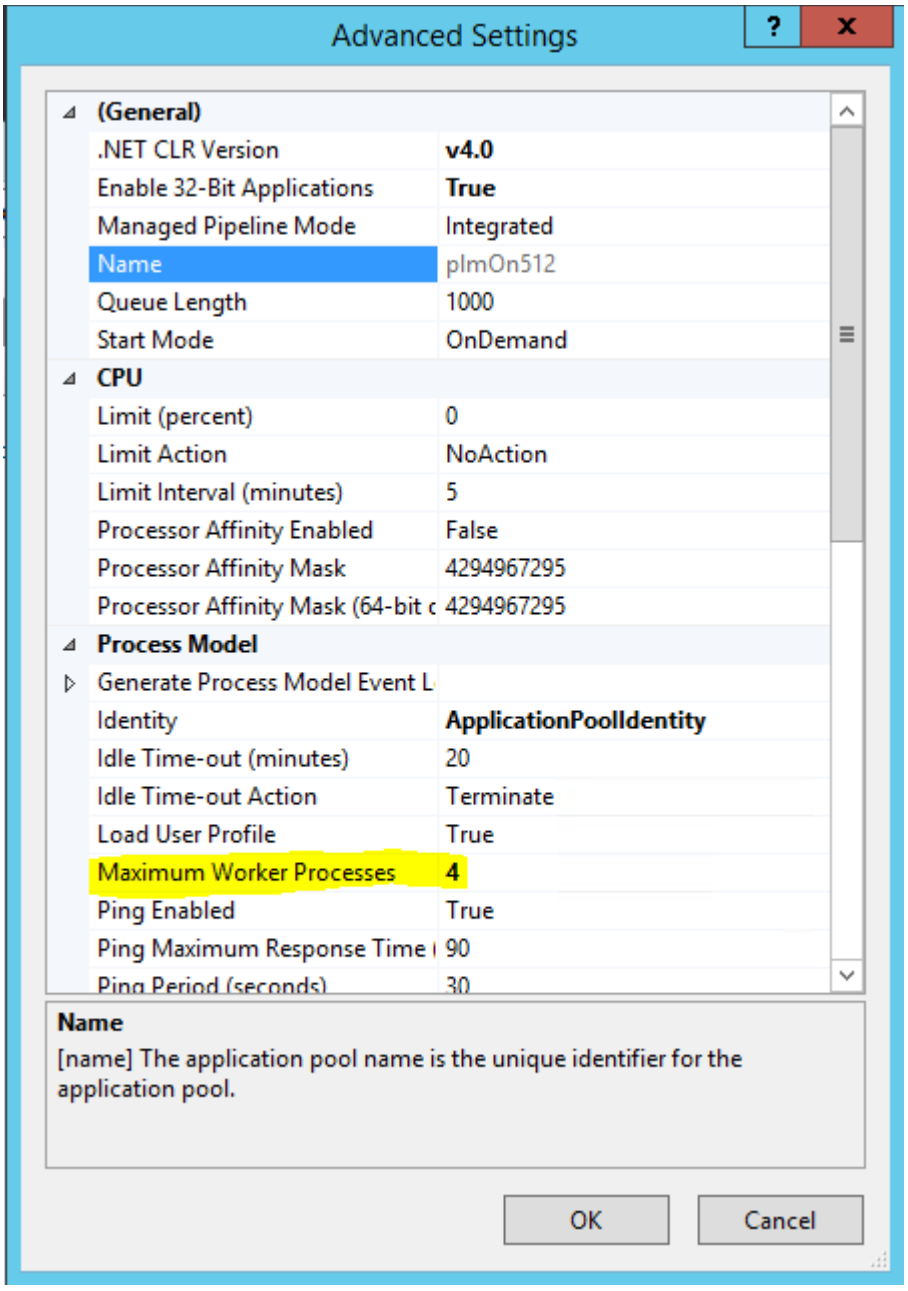
An IIS web garden is a scenario where a website is configured to run within multiple processes on a single server. By default an IIS application pool will run in a single process on the server. There is an option though to change the Maximum Worker Processes value to a number higher than one. When this is done, multiple processes (w3wp.exe) will spin up and serve requests made to that single application pool.

Web gardens will consume more server memory, use more CPU resources, and impact the application state. By default ASP.NET uses in-process state management. Enabling ASP.NET session state allows IIS the handle multiple processes. This could be useful for large system configurations running on web servers with large available memory and many available processor cores. Do not select the "Enable SQL Session State" if the web server has only one processor.

3.4.1. When the setup option "Enable SQL Session State" is selected, an additional SQL database called "ASPState" is created. The YuniquePLM™impersonation account needs to be given access to the database and given "db_owner" permissions:

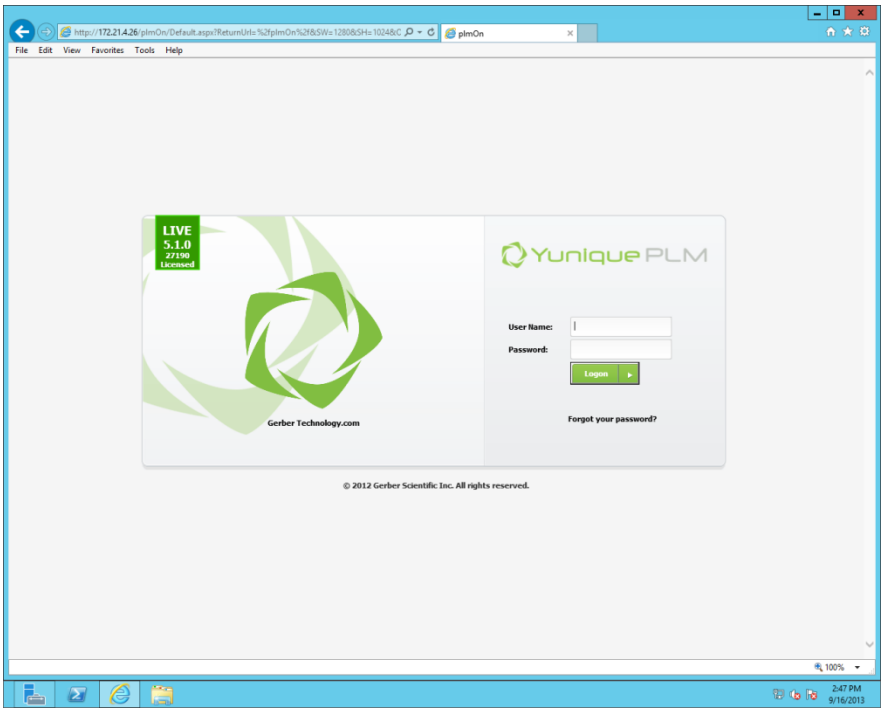


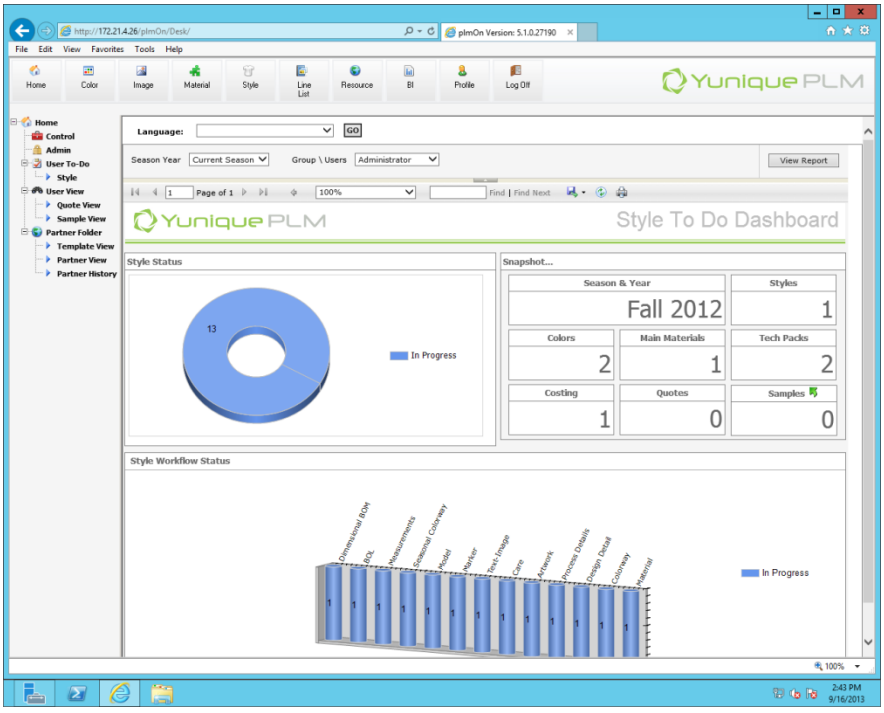
3.4.2. Each of the YuniquePLM™ web application pools should be updated to increase the "Maximum Worker Processes". The default value is 1. You can support a greater number of concurrent synchronization operations per CPU by increasing the Maximum Worker Process property value. Change the value to 2, but no more than 4.



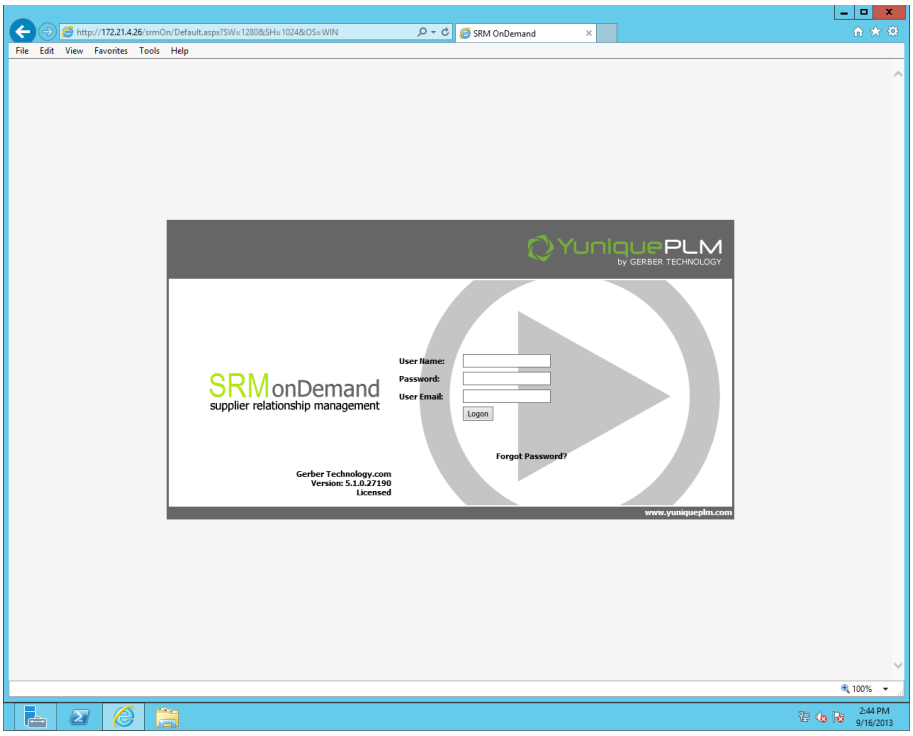
4. Application Verification

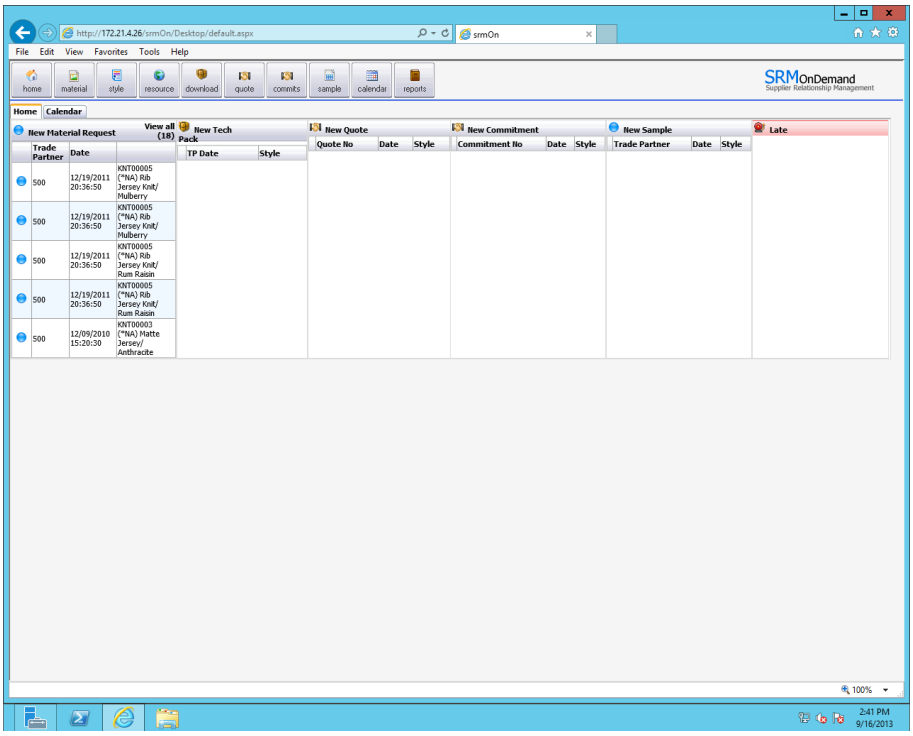
4.1. On the desktop, double click on the plmOn ICON and verify the plmOn login screen displays. Login and verify the application is functioning. The default user ID is "Administrator", password "plmon1234@"



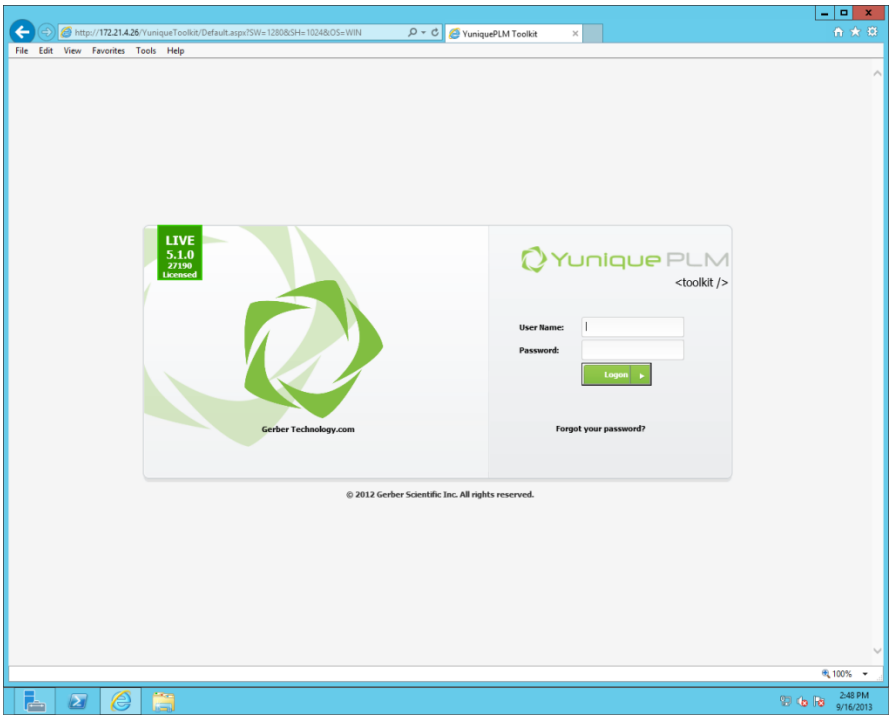


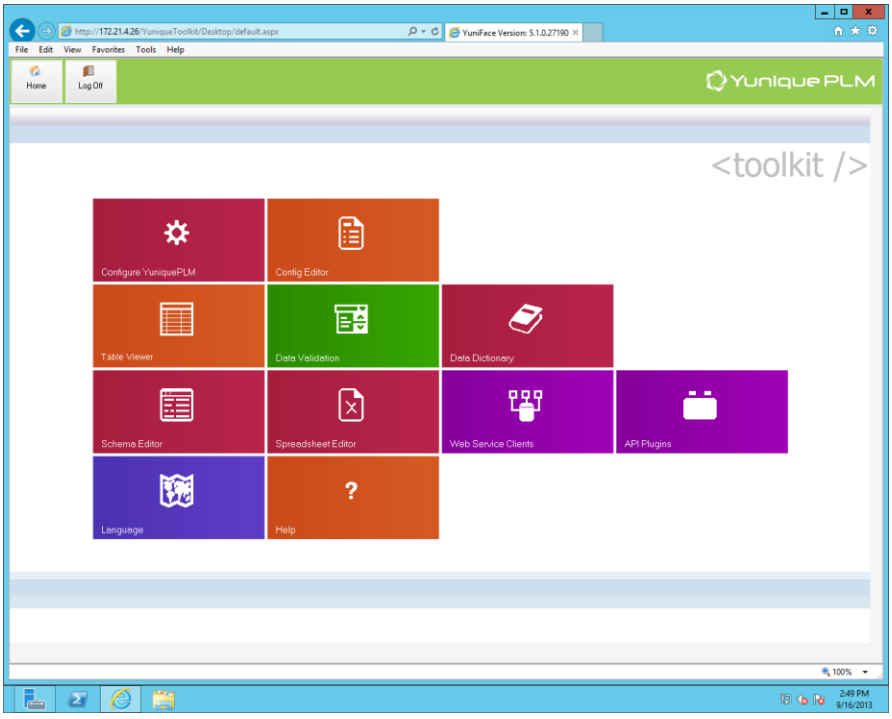
4.2. On the desktop, double click on the srmOn ICON and verify the srmOn login screen displays. Login and verify the application is functioning. The default user ID is "YuniqueAgent", password "plmon1234@", email "darioush@yunique.com"





4.3. On the desktop, double click on the YuniqueToolkit ICON and verify the YuniqueToolkit login screen displays. The YuniqueToolkit is an option. If licensed, login and verify the application is functioning. The default user ID is "Administrator", password "plmon1234@"





Appendix A: Hardware and System Requirements

YuniquePLM™Deployment Infrastructure

Many of our customers implementing YuniquePLM™ maintain multiple environments.

Typically there are up to four (4) environments.

Minimally, the Development and Production environments are required.

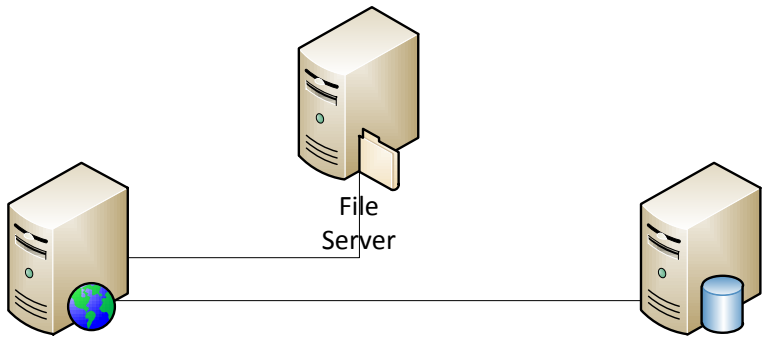
For Best practice we recommend the following environments:

- Integration: An environment for testing the latest release builds. Developers test their deployed changes in this environment.
- Development: An environment for new configurations and development efforts.
- Staging/QA: Typically a close replica of the Production environment where new changes can be tested and approved, prior to production release.
- Production/Live: This is the environment where all of the day-to-day activities take place.

Minimum Eligibility Requirements

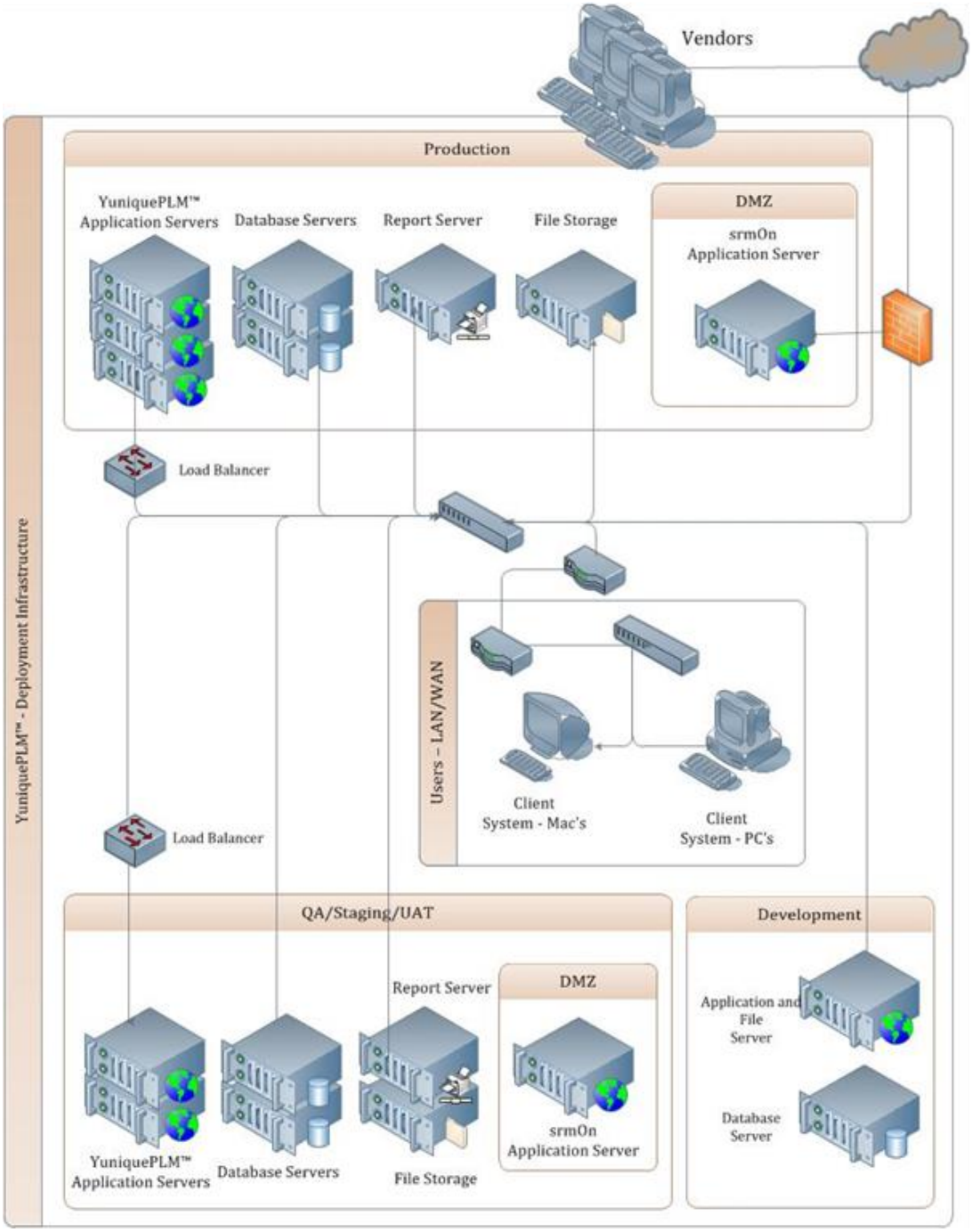
Each environment typically consists of three servers:

YuniquePLM™ Building Blocks



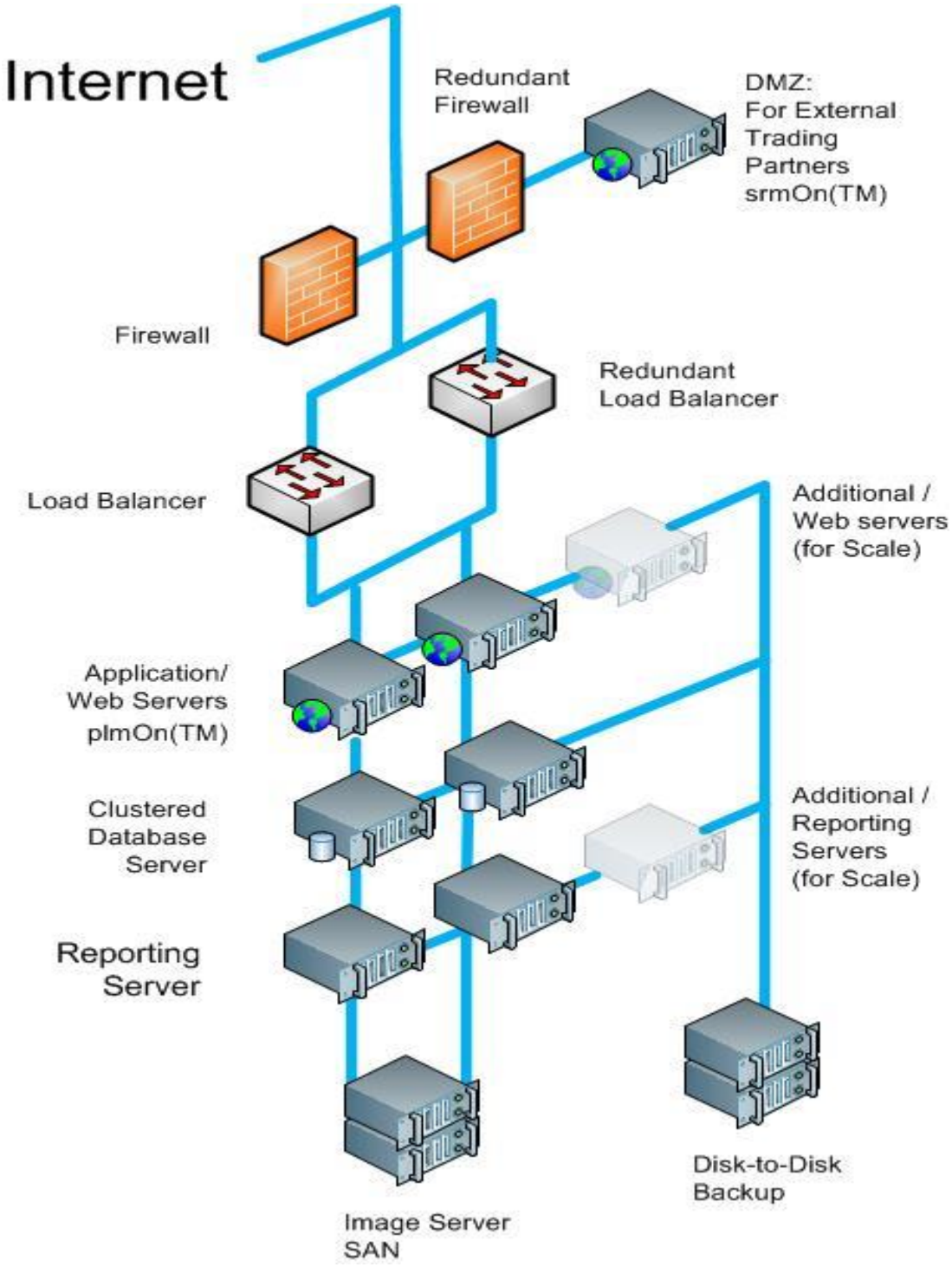
- Application Server: Configured with IIS to host the YuniquePLM™ application
- File Server: Image Repository
- Database Server: A Server hosting the SQL Server Database, SQL Server Reporting Services and SQL Server Integration Services

Sample Large Scale Implementation

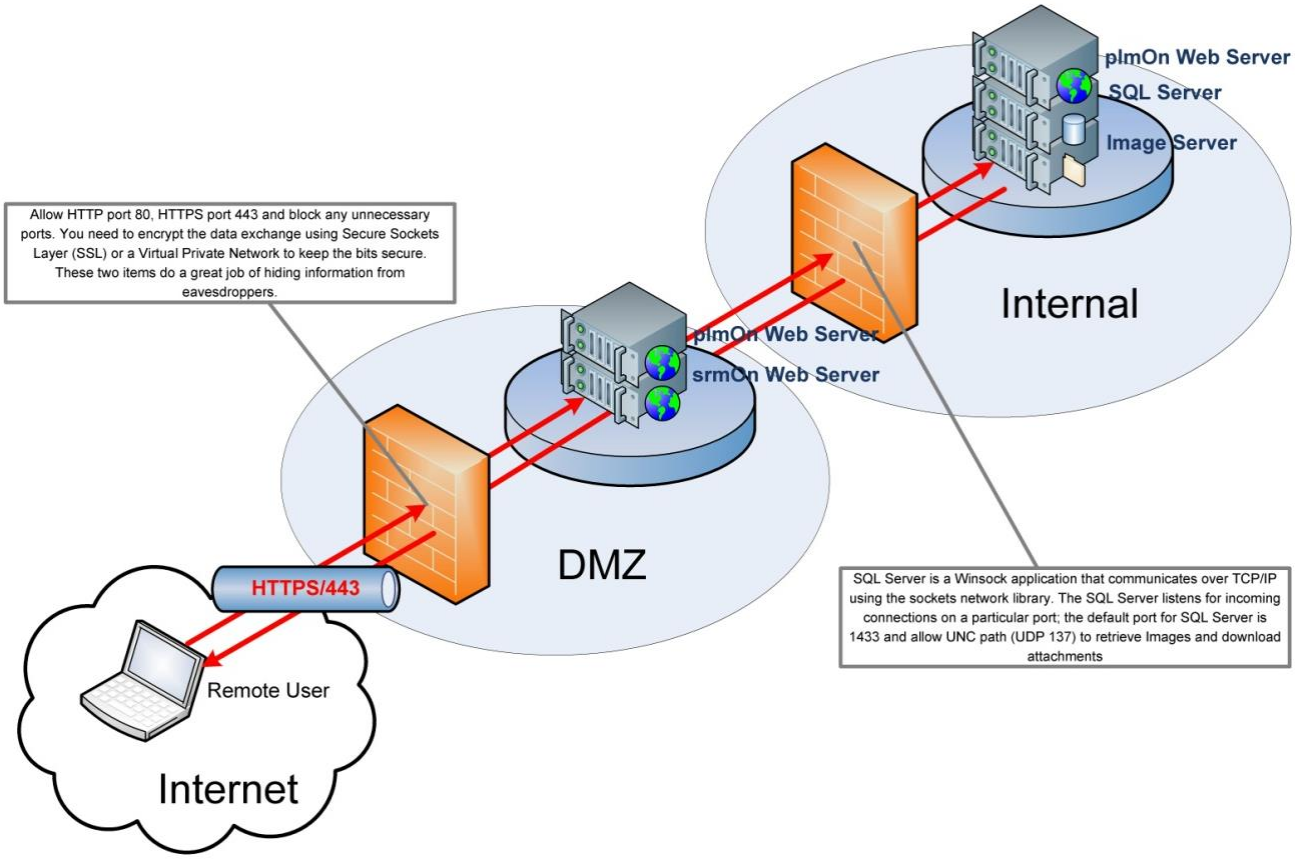


YuniquePLM™Network Architecture

YuniquePLM™runs on Microsoft technologies including Windows Server 2008R2, IIS, SQL Server DBMS. These technologies offer high availability and scalability. We recommend database clustering, web farm, network load balancing clusters and installing RAID drives for high availability.



Possible YuniquePLM™Configuration
Secure Remote Internet Access using a DMZ
Internal Private Network Access



Large System Configuration (100+ Users) - YuniquePLM™

Database Server Configuration

DB Server	Recommended
CPU	Intel Xeon – 8 Cores 2.4 GHz +
Memory	64 GB
Storage	O/S: RAID-1 (15k RPM SCSI) – 100GB Storage: RAID-10 (15k RPM SCSI) – TBD
Preferred O/S	Windows Server 2012R2 Std.
Compatible O/S	Windows Server 2008R2, 2012, 2012R2 Std.
Network Connection	4x1 Gigabit Ethernet - teamed
Data Engine	64-bit SQL Server 2008R2 Std. or SQL 2012 Std. with Reporting and Integration Services
Other	
Physical	√
Virtual	X

- For best performance the Database Server should be a dedicated physical server and not host other databases or applications. It must not be hosted on the same server as the Web Server or the File Server.
- The Database Server should not be installed in a virtual server for optimum performance.[1]
- A SQL Server license and SQL Client Licenses are required for each YuniquePLM™ User License, or SQL Core Licenses can be used.

Web Server Configuration

Web Server	Recommended
CPU	Intel Xeon – 4 Cores 3.0 GHz +
Memory	32 GB
Storage	O/S: RAID-1 (15k RPM SCSI) – 100GB
Preferred O/S	Windows Server 2012R2 Std.
Compatible O/S	Windows Server 2008R2, 2012, 2012R2 Std.
Network Connection	4x1 Gigabit Ethernet - teamed
Data Engine	n/a
Other	IIS 7.5 (2008R2) , 8.0 (2012), 8.5 (2012R2) .NET Framework 4.5, AJAX V1.0
Physical	√
Virtual	√

- For best performance the Web Server should be a dedicated physical server and not host other applications. It must not be hosted on the same server as the Database or File Server.
- The Web Server can be installed in a virtual server.[1]
- IIS is part of the Windows Server Operating System.

File Server Configuration

File Server	Recommended
CPU	Intel Xeon – 4 Cores 3.0 GHz +
Memory	16 GB
Storage	O/S: RAID-1 (15k RPM SCSI) – 100GB Storage: RAID-10 (15k RPM SCSI) - TBD
Preferred O/S	Windows Server 2012R2 Std.
Compatible O/S	Windows Server 2008R2, 2012, 2012R2 Std.
Network Connection	4x1 Gigabit Ethernet - teamed
Data Engine	n/a
Other	IIS 7.5 (2008R2) , 8.0 (2012), 8.5 (2012R2)
Physical	√
Virtual	√

- For best performance the File Server should be a dedicated physical server and not host other applications. It must not be hosted on the same server as the Database Server or the Web Server.
- The File Server can be installed on a virtual server.[1]
- A Windows Server Client License is needed for each YuniquePLM™ User License.
- IIS is part of the Windows Server Operating System.

Report Server Configuration
(Recommended for best Performance)

Report Server	Recommended
CPU	Intel Xeon – 4 Cores 3.0 GHz +
Memory	32 GB
Storage	O/S: RAID-1 (15k RPM SCSI) – 100GB Storage: RAID-10 (15k RPM SCSI) - TBD
Preferred O/S	Windows Server 2012R2 Std.
Compatible O/S	Windows Server 2008R2, 2012, 2012R2 Std.
Network Connection	2x1 Gigabit Ethernet - teamed
Data Engine	64-bit SQL Server 2008R2 Std. or SQL 2012 Std.
Other	SQL Server Reporting Services
Physical	√
Virtual	√

- For best performance the SQL Reporting Server should be a dedicated server and not host other databases or applications.
- A SQL Server license and SQL Client Licenses are required for each YuniquePLM™ User License, or SQL Core Licenses can be used.
- The SQL Reporting Server can be installed on a virtual server.[1]

System Configurations can be scaled to include additional Web Servers, File Servers, Reporting Servers, Load Balancers, Clusters, and remote Servers.Large

[1] See notes

Medium System Configuration (21-99 Users) - YuniquePLM™

Database Server Configuration

DB Server	Recommended
CPU	Intel Xeon – 8 Cores 2.4 GHz +
Memory	64 GB
Storage	O/S: RAID-1 (15k RPM SCSI) – 100GB Storage: RAID-10 (15k RPM SCSI) - TBD
Preferred O/S	Windows Server 2012R2 Std.
Compatible O/S	Windows Server 2008R2, 2012, 2012R2 Std.
Network Connection	4x1 Gigabit Ethernet - teamed
Data Engine	64-bit SQL Server 2008R2 Std. or SQL 2012 Std. with Reporting and Integration Services
Other	
Physical	√
Virtual	X

- For best performance the Database Server should be a dedicated physical server and not host other databases or applications. It must not be hosted on the same server as the Web Server or the File Server.
- The Database Server should not be installed in a virtual server for optimum performance.[1]
- A SQL Server license and SQL Client Licenses are required for each YuniquePLM™ User License, or SQL Core Licenses can be used.

Web & File Server Configuration

Web Server	Recommended
CPU	Intel Xeon – 4 Cores 3.0 GHz +
Memory	32 GB
Storage	O/S: RAID-1 (15k RPM SCSI) – 100GB Storage: RAID-10 (15k RPM SCSI) - TBD
Preferred O/S	Windows Server 2012R2 Std.
Compatible O/S	Windows Server 2008R2, 2012, 2012R2 Std.
Network Connection	4x1 Gigabit Ethernet - teamed
Data Engine	n/a
Other	IIS 7.5 (2008R2) , 8.0 (2012), 8.5 (2012R2) .NET Framework 4.5, AJAX V1.0
Physical	√
Virtual	√

- For best performance the Web and File Server should be a dedicated physical server and not host other applications. It must not be hosted on the same server as the Database Server.
- The Web and File Server can be installed in a virtual server.[1]
- A Windows Server Client License is needed for each YuniquePLM™ User License.
- IIS is part of the Windows Server Operating System.

Report Server Configuration
(Recommended for best Performance)

Report Server	Recommended
CPU	Intel Xeon – 4 Cores 3.0 GHz +
Memory	32 GB
Storage	O/S: RAID-1 (15k RPM SCSI) – 100GB Storage: RAID-10 (15k RPM SCSI) - TBD
Preferred O/S	Windows Server 2012R2 Std.
Compatible O/S	Windows Server 2008R2, 2012, 2012R2 Std.
Network Connection	2x1 Gigabit Ethernet - teamed
Data Engine	64-bit SQL Server 2008R2 Std. or SQL 2012 Std.
Other	SQL Server Reporting Services
Physical	√
Virtual	√

- For best performance the SQL Reporting Server should be a dedicated server and not host other databases or applications.
- A SQL Server license and SQL Client Licenses are required for each YuniquePLM™ User License, or SQL Core Licenses can be used.
- The SQL Reporting Server can be installed on a virtual server.[1]

[1] See notes

Small System Configuration (20 Users or less) - YuniquePLM™

Database, Web, File, and Report Server Configuration

DB Server	Recommended
CPU	Intel Xeon – 8 Cores 2.4 GHz +
RAM	64 GB
Storage	O/S: RAID-1 (15k RPM SCSI) – 100GB Storage: RAID-10 (15k RPM SCSI)
Preferred O/S	Windows Server 2012R2 Std.
Compatible O/S	Windows Server 2008R2, 2012, 2012R2 Std.
Network Connection	4x1 Gigabit Ethernet - teamed
Data Engine	64-bit SQL Server 2008R2 Std. or SQL 2012 Std. with Reporting and Integration Services
Other	IIS 7.5 (2008R2) , 8.0 (2012), 8.5 (2012R2) .NET Framework 4.5, AJAX V1.0
Physical	√
Virtual	√

- **For best performance the Database, Web and File Server should be a dedicated physical server and not host other applications.**
- **The Database, Web and File Server can be installed in a virtual server.[1]**
- **A SQL Server license and SQL Client Licenses are required for each YuniquePLM™ User License, or SQL Core Licenses can be used.**
- **A Windows Server Client License is needed for each YuniquePLM™ User License.**
- **IIS is part of the Windows Server Operating System**

Development System Configuration (Basic) - YuniquePLM™

Database, Web, File, and Report Server Configuration

DB Server	Recommended
CPU	Intel Xeon – 4 Cores 3.0 GHz +
RAM	16 GB
Storage	500GB +
Preferred O/S	Windows Server 2012R2 Std.
Compatible O/S	Windows Server 2008R2, 2012, 2012R2 Std.
Network Connection	Gigabit Ethernet
Data Engine	64-bit SQL Server 2008R2 Std. or SQL 2012 Std. with Reporting and Integration Services
Other	IIS 7.5 (2008R2) , 8.0 (2012), 8.5 (2012R2) .NET Framework 4.5, AJAX V1.0
Physical	√
Virtual	√

- **The Database, Web and File Server can be installed in a virtual server.[1]**
- **A SQL Client License is needed for each YuniquePLM™ User License, or SQL Core Licenses can be used.**
- **A Windows Server Client License is needed for each YuniquePLM™ User License.**
- **IIS is part of the Windows Server Operating System**

[1] **See notes**

User Workstation Requirements - YuniquePLM™

PC Workstation Configuration

MAC Workstation Configuration

User Workstation	Recommended	User Workstation	Recommended
Processor	2.5 GHz Intel i3 or better	Processor	2.5 GHz Intel i3 or better
Memory	8 GB	Memory	8 GB
Network	Gigabit Ethernet	Network	Gigabit Ethernet
Monitor	17"	Monitor	17"
Monitor Resolution	1280x1024	Monitor Resolution	1280x1024
Operating System	Windows 7 Professional w/SP1 Windows 8 Professional Windows 8.1 Professional	Operating System	Mac OS X 10.4 or Higher
Web Browser	Internet Explorer 8.0 or Higher	Web Browser	Safari (as included with Mac OS X)
Other Software	Adobe Reader XI Adobe Illustrator CS5.5 or CS6 Adobe Photoshop CS5.5 or CS6	Other Software	Adobe Reader XI Adobe Illustrator CS5.5 or CS6 Adobe Photoshop CS5.5 or CS6
Physical	√	Physical	√
Virtual	NA	Virtual	NA

NOTES

- Windows, MAC, Photoshop, and Illustrator are registered trademarks of Microsoft, Apple, and Adobe, respectively. No endorsement is implied by their appearance in this document.
- Supported Virtual Server hosts include VMware and Hyper-V.
- Unless otherwise noted, newer Service Pack releases to those mentioned are supported and required.
- The Windows Desktop Experience feature in Windows Server 2008R2 and Windows Server 2012 and 2012R2 must be installed on the Web server.
- It is recommended that Windows Server and Microsoft SQL be installed in English for remote installation and support purposes.
- Disk space requirements for the database and file server data will vary. The recommended minimum space for the database should be at least 100GB, and the minimum space for the file server data should be at least 500GB.
- For User Workstation configurations without Adobe Illustrator or Photoshop, the memory requirement can be reduced to 4GB
- Hardware configurations listed in this document are based on vendor offerings at the time of publication.
- Virtual Host servers should not be over committed (memory, processors), as this can adversely affect performance. Also virtual host servers with I/O intensive virtual servers.
- Virtual disk drives should not be created with “Thin Provisioning” or “Dynamic Expanding”, as this can adversely affect performance.
- Use of NAS or SAN devices can adversely affect performance if the device has high latency, low performance disk drives, heavily utilized processor(s) and/or network connection(s). Virtual servers utilizing NAS or SAN devices for their system disks can exhibit slow performance if disk swapping occurs (virtual server with undersized memory) or the NAS or SAN device encounters heavy utilization.
- It is recommended that Proxies, Application Accelerators, Traffic Managers, or other optimization devices not be used with YuniquePLM, as some of these devices can cause Microsoft IIS and YuniquePLM to fail.

Appendix B: Manually Creating a CAD Relational Database Link Server

YuniquePLM™connects to an AccuMark CAD Relational data using a Microsoft SQL Linked Server connection. The YuniquePLM™setup utility can be used to create the Linked server connection for a YuniquePLM™single server configuration (the "CAD Database Server" tab and the "Make Linked Server" checkbox on the "Install" tab). The Linked Server connection can be created manually using Microsoft SQL Management Studio and SQL script commands. YuniquePLM™can only connect to a single AccuMark CAD Relational database. AccuMark workstations must be configured to use AccuMark SQL storage areas and the AccuMark CAD Relational database (refer to AccuMark documentation). The AccuMark version must be V8.4.1 or greater.
The following information is needed:

- **The server name or IP address of the AccuMark SQL Server**
- **The name of the CAD Relational database on the AccuMark SQL Server**
- **A SQL user account and password on the AccuMark SQL Server that has "datareader" permissions to the CAD Relational database**
- **The YuniquePLM™Impersonation Windows account and password**
- **The Windows account and password of the logged in user running SQL Management Studio (for verification of the Linked Server connection).**

The YuniqueToolkit will also have to be run to set the AccuMark CAD Relational database name for YuniquePLM.

Below is a SQL script that would be used to create the Linked Server:

```
sp_dropserver 'CADDatabase', 'droplogins';

sp_addlinkedserver @server = 'CADDatabase',
                                        @srvproduct = N'SQL_Server',
                                        @provider = N'SQLOLEDB',
                                        @datasrc=N'DBServerName';

sp_addlinkedsrvlogin @rmtsrvname = 'CADDatabase',
                                                @useself = "false",
                                                @locallogin = "Domain\YuniqueImpersonationAccount",
                                                @rmtuser = "SQLAccountWithROAccessToRelDB",
                                                @rmtpassword = "SQLAccountPassword";

sp_addlinkedsrvlogin @rmtsrvname = 'CADDatabase',
                                                @useself = "false",
                                                @locallogin = "Domain\UserID",
                                                @rmtuser = "SQLAccountWithROAccessToRelDB",
                                                @rmtpassword = "SQLAccountPassword";

select top 50 * from [CADDatabase].[RelDatabaseName].[dbo].cad_cats
```

The first command will remove a linked server called CADDatabase if it exists. The name CADDatabase is the alias name that YuniquePLM™uses to access the CAD Relational Database. The name of the linked server must be called CADDatabase. YuniquePLM™can only connect to a single AccuMark CAD Relational database.

The second command creates the linked server called CADDatabase. The name or IP address of the AccuMark SQL Server would replace DBServerName in the command.

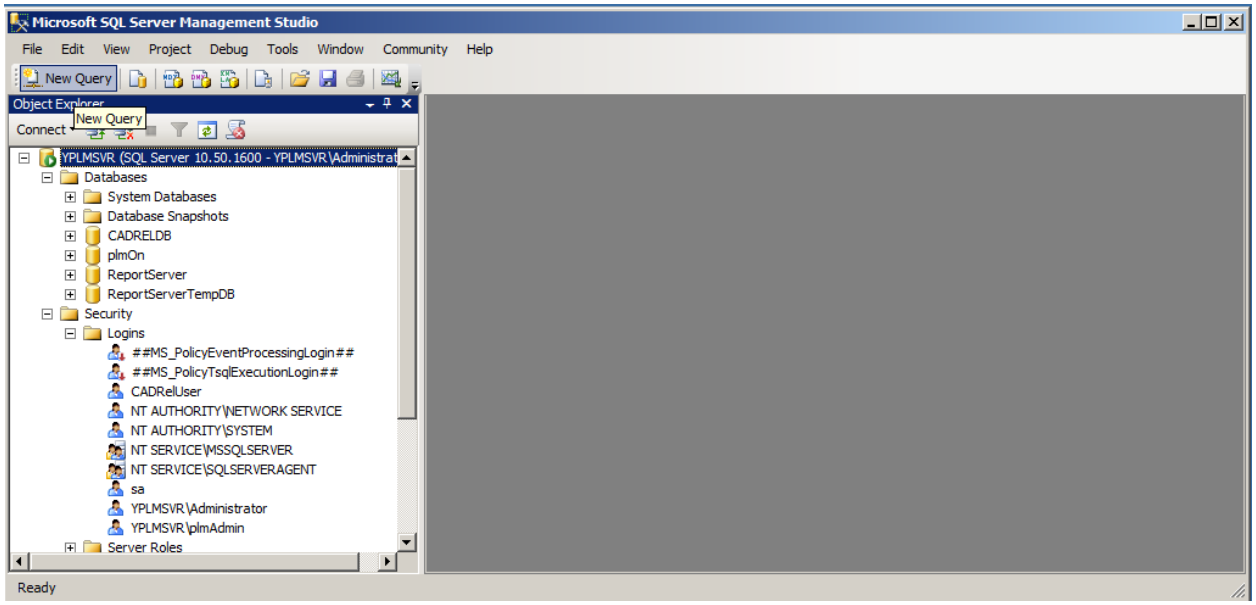
The third command defines which accounts that would have permissions to access CADDatabase. The Windows Impersonation account for YuniquePLM™would replace Domain\YuniqueImpersonationAccount in the command. The SQL user account and password on the AccuMark SQL Server that has "datareader" permissions to the CAD Relational database would replace SQLAccountWithROAccessToRelDB and SQLAccountPassword.

The fourth command is a repeat of the third command, but provides permission to the currently logged in account to access CADDatabase. The currently logged in account name would replace Domain\UserID in the command. The SQL user account and password on the AccuMark SQL Server that has "datareader" permissions to the CAD Relational database would replace SQLAccountWithROAccessToRelDB and SQLAccountPassword. The reason for this command is to test the linked server connection.

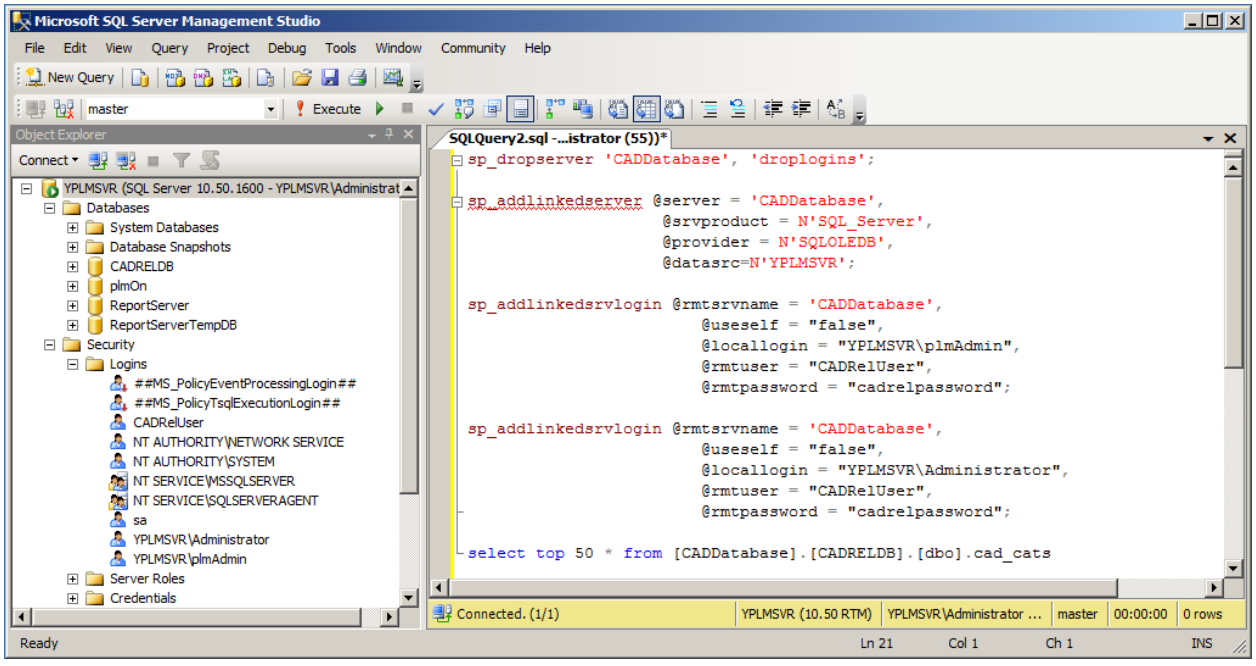
The fifth command is used to test the linked server connection. The AccuMark CAD Relational Database name would replace RelDatabaseName. For testing purposes the data table called cad_cats is used. Other data tables in the AccuMark CAD Relational Database can be used.

The following is an example using a single server, where the AccuMark CAD Relational Database and the YuniquePLM™database are on the same server:

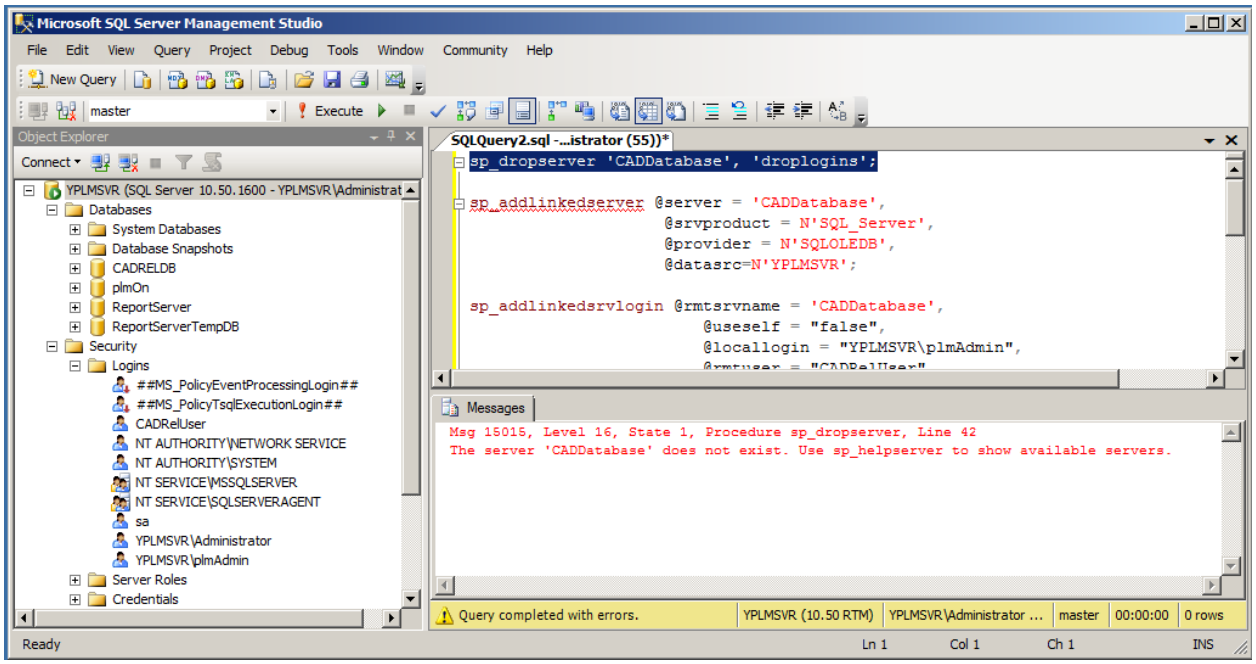
- **Start and log into Microsoft SQL Server Management Studio. Select "New Query"**



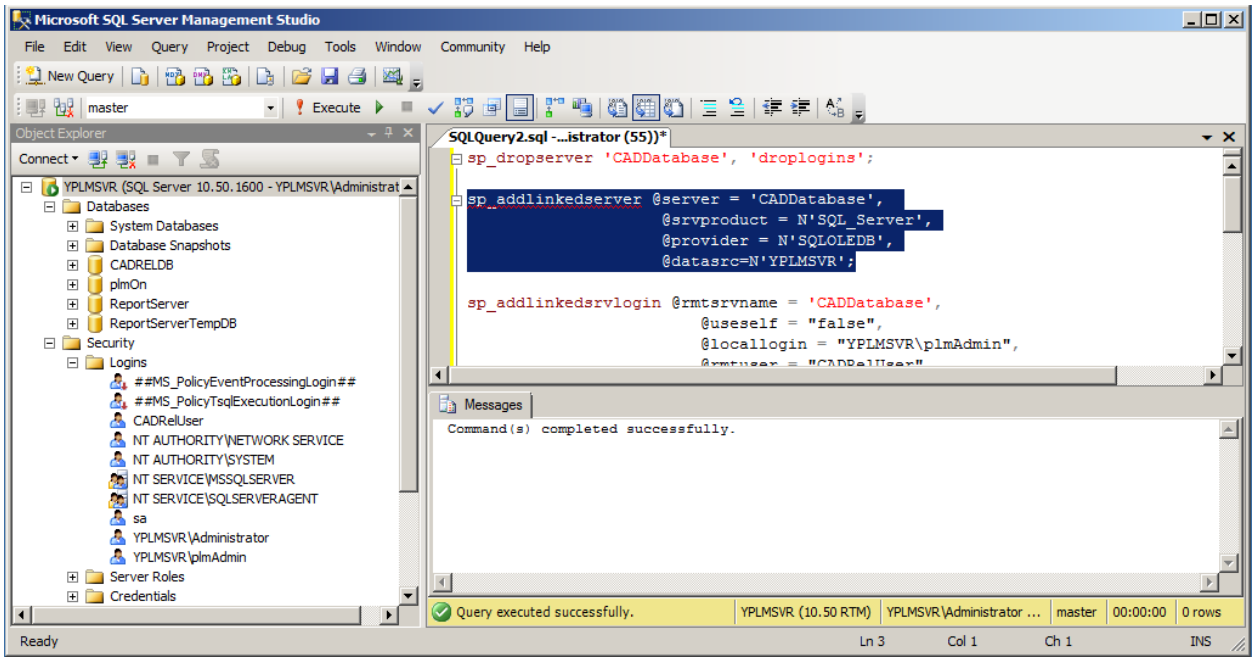
- **You can copy and paste the script above and edit the appropriate fields**



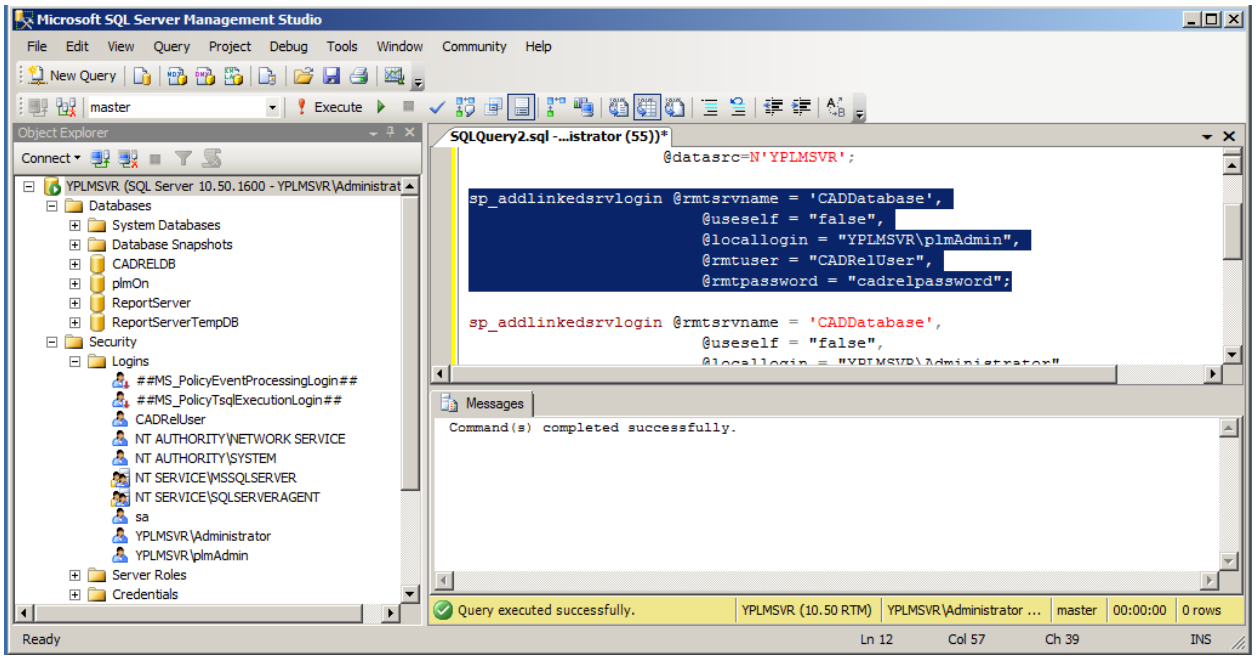
- **Select the first command (highlight) and press the "!Execute" button. If a linked server called CADDatabase does not exist the message window will indicate it does not exist. Otherwise the message window will indicate the linked server called CADDatabase was successfully dropped.**



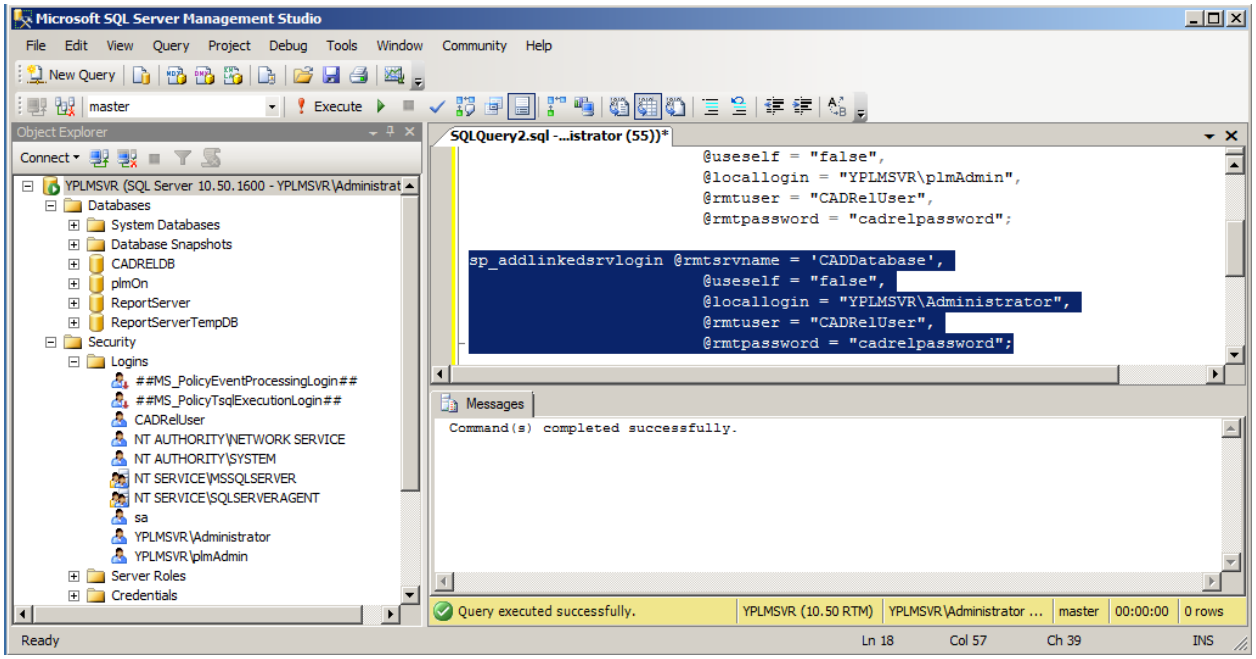
- **Select the second command (highlight) and press the "!Execute" button. This command creates a linked server called CADDatabase to the database server YPLMSVR.**



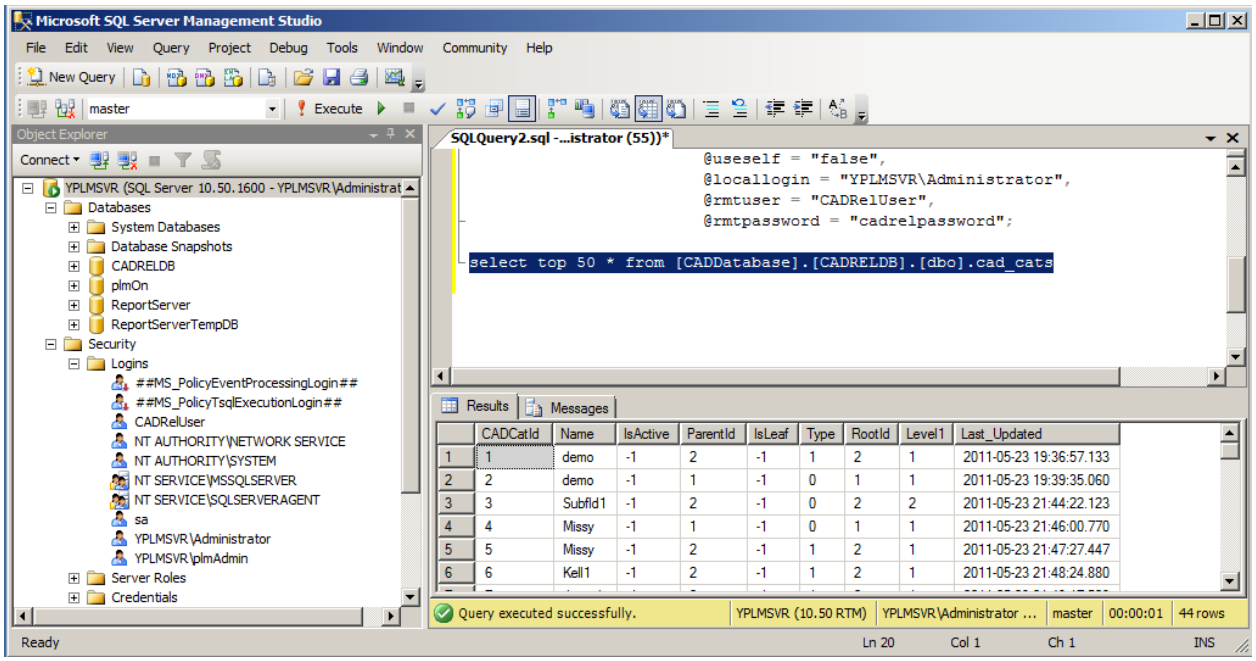
- **The third command creates permissions for the YuniquePLM™impersonation account YPLMSVR\plmAdmin to access the CADDatabase link server The SQL account on the AccuMark server that has datareader permissions is CADRelUser with the password cadrelpassword.**



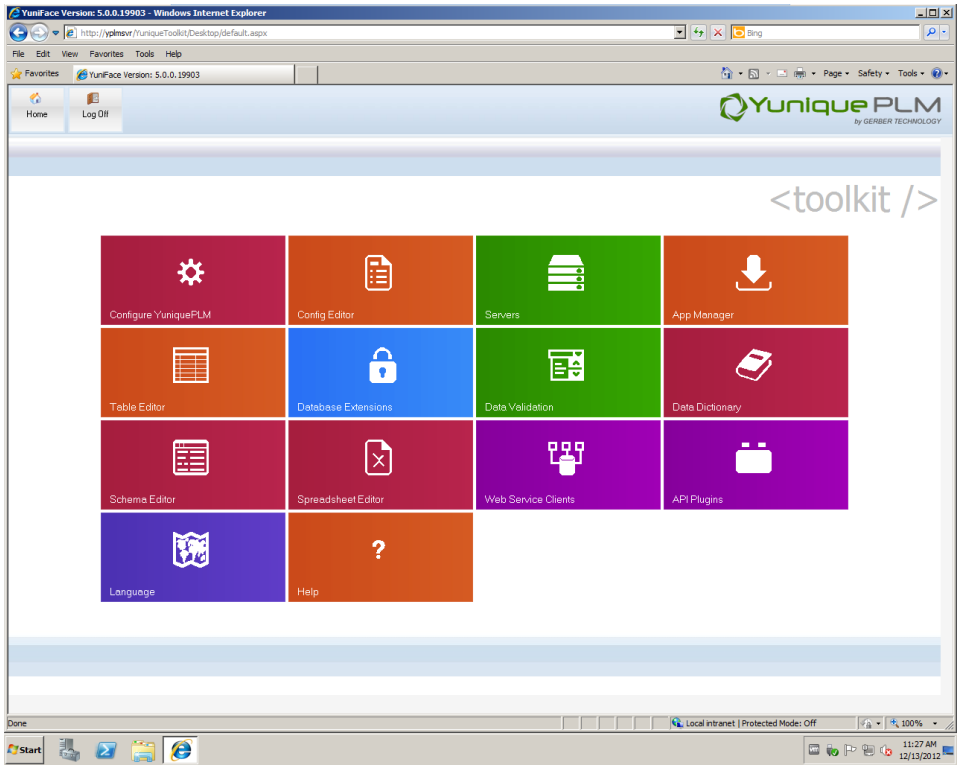
- **The fourth command creates permissions for the local server account YPLMSVR\Administrator to access the CADDatabase link server. The SQL account on the AccuMark server that has datareader permissions is CADRelUser with the password cadrelpassword. This will all testing the linked server.**



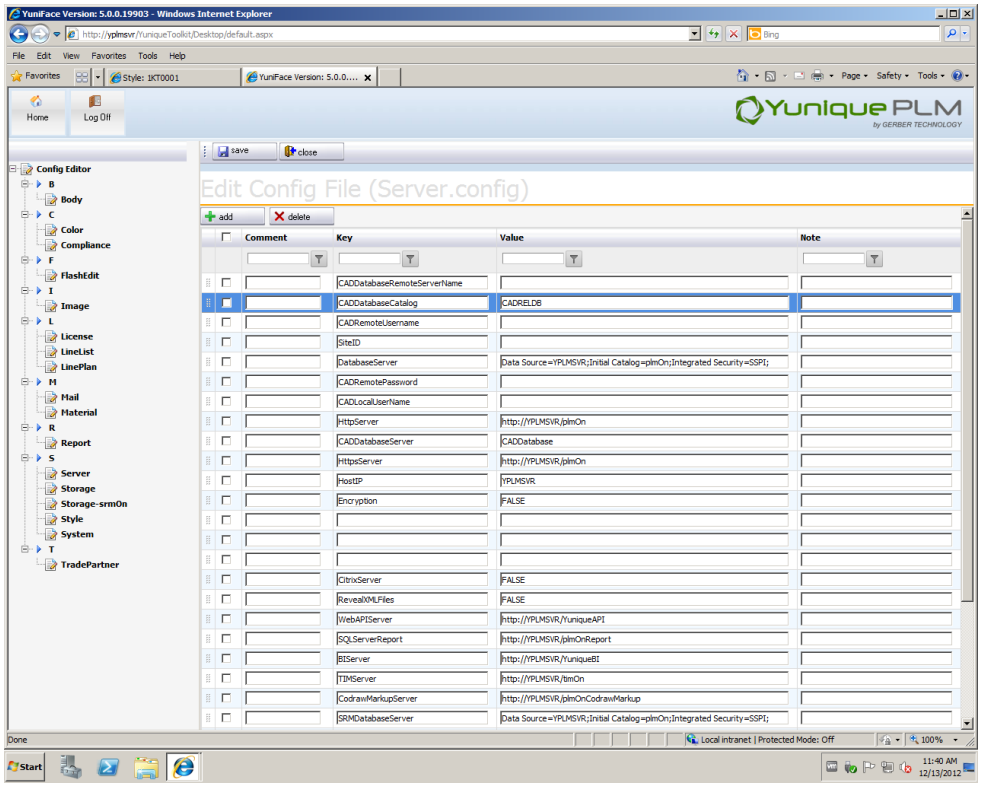
- **The fifth command will test the linked server connection. Since the currently logged in account is YPLMSVR\Administrator, and that account was granted permissions to access the CADDatabase Link Server, the contents of data table cad.cats in database CADRELDB should display in the Results window.**



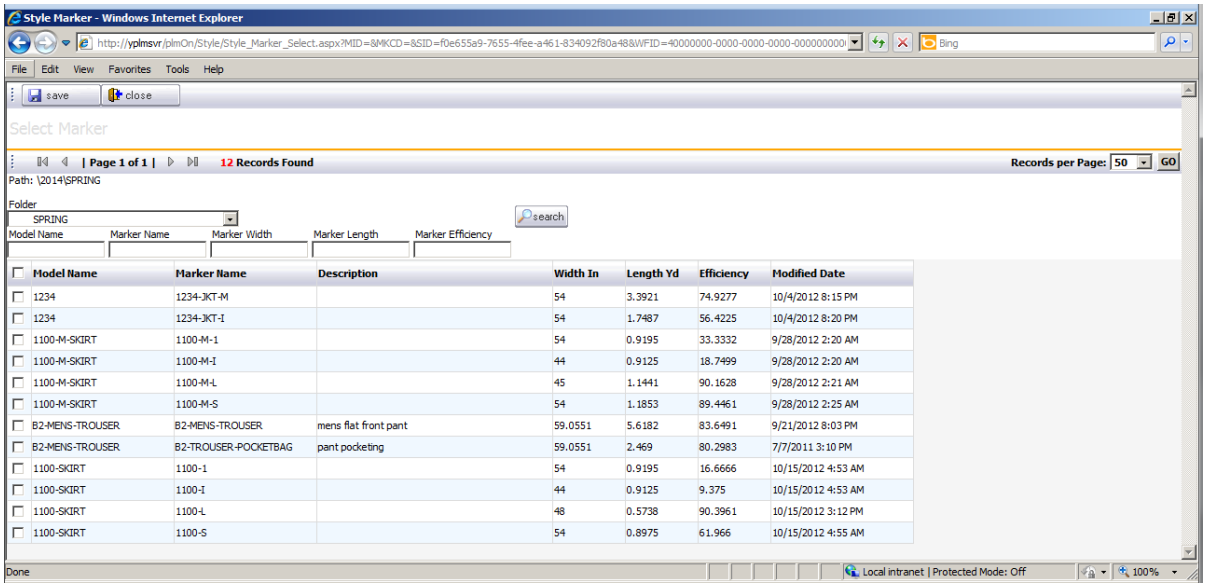
- **Now YuniquePLM™needs to know the AccuMark CAD Relational Database name. Start the YuniqueToolKit and login. Select the Config Editor button.**



- **Select the Server config entry and find the CADDatabaseCatalog entry. Enter the name of the AccuMark CAD Relational database. Press the Save button.**



- **To further test, log into plmOn, open a style that has a style-model or style-marker bubble, select add. When selecting the folder, the information from the AccuMark CAD Relational Database should display. In the example below, the style-marker bubble was selected, and the Spring folder was selected from the AccuMark CAD Relational Database. A list of markers in the AccuMark CAD Relational Database should display for selection.**

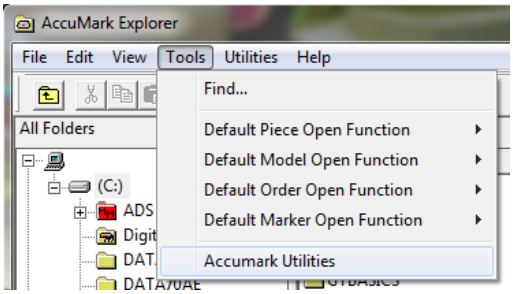


Appendix C: AccuMark Integration / Workstation configuration

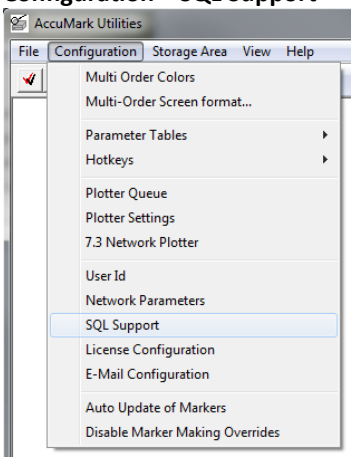
Create a Relational Database using AccuMark Version 8+

The Relational Database is created and populated with AccuMark. After the database is created by an initial user, all users can enter the CAD Relational Database information in their AccuMark SQL Support configuration. Then, any time a save function is used in AccuMark, new data will be pushed to the Relational Database.

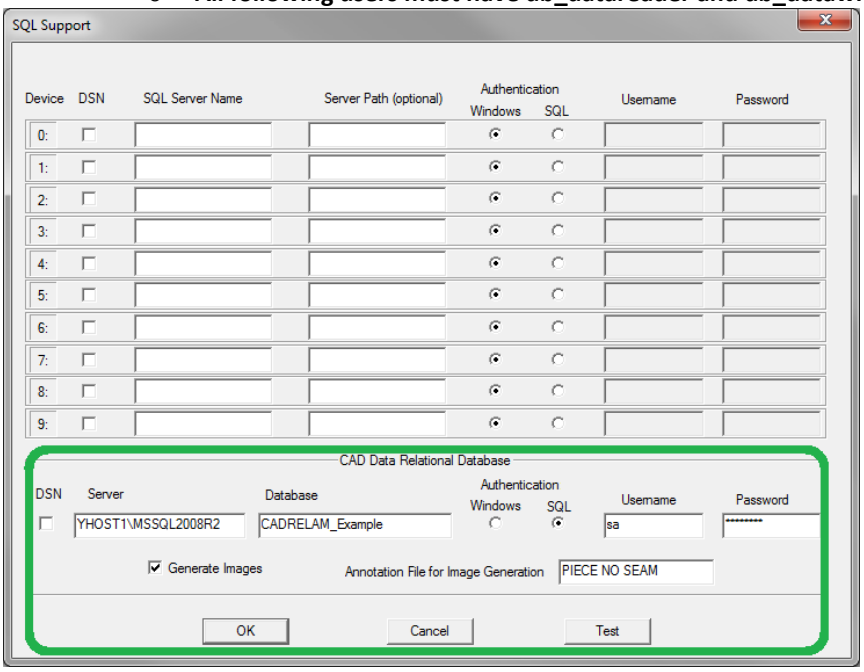
1. **To create the Relational Database: AccuMark Explorer > Tools > AccuMark Utilities**



2. **Configuration > SQL Support**



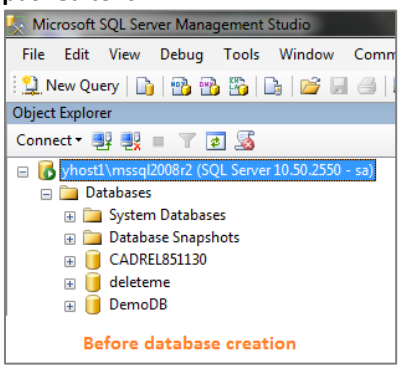
3. **Enter the following in the bottom area 'CAD Data Relational Database':**
   - **SQL Server Name**
     - **Can be on the same SQL Server as the YuniquePLM™database, or separate**
   - **Database Name**
     - **AccuMark Support conventionally names this CADRELAM**
     - **This process will create the database, it does not have to pre-exist**
   - **Authentication Type and Credentials**
     - **The initial user must have dbcreator privileges to create the database**
     - **All following users must have db_datareader and db_datawriter permissions**

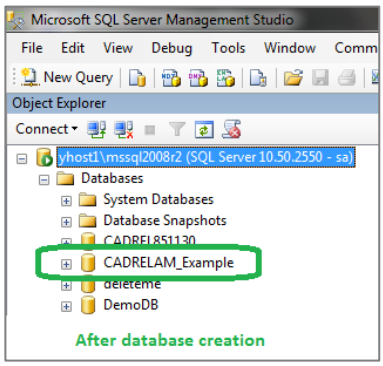


4. **Click the 'Test' button, then the 'OK' button**
   (Note: You may get "Cannot Connect to CAD Relational Database or Database May Not Exist" error messages if your database does not exist yet. Just click 'OK' to continue with step 5 to create the database.)

5. **Reboot the AccuMark user's machine**

6. **Save or copy a model or marker in AccuMark Explorer. The database will be created and data will be pushed to it.**





YuniquePLM & AccuMark Compatibility

AccuMark yuniquePLM	8.4.1	8.4.1 +SP	8.5.0	8.5.1	9.0
4.0	✔	✔	✔	✔	
4.1	✔	✔	✔	✔	
4.2	✔	✔	✔	✔	
5.0	✔	✔	✔	✔	
5.1	✔	✔	✔	✔	✔

Note:

Service Pack 12102010 for AccuMark V8.4.1 adds a rule table column to the Cad_Piece_Details table when the next model is saved in AccuMark.
To manually add the column run this script:

'ALTER TABLE Cad_Piece_Details ADD Rule_Table_Name VARCHAR(64) NULL GO'

AccuMark 8.5.1 pushes additional marker information:

1. **New columns are added to the end of the Cad_Marker_Details table**
   - **laylimits table**
   - **block/buffering table**
   - **matching table**
2. **Cad_MK_Size**
   - **Ordered size names**
3. **Cad_MK_Model**
   - **Model Option name**
   - **Size Code Table**
4. **Cad_MK_Piece**
   - **Model_code is now being updated and not left as NULL**

AccuMark 9.0 pushes additional information and allows for longer names.

- **Additional marker information: fabric cost, fabric weight, cost per bundle, cost per dozen, marker cost, marker weight, net weight bundle, and gross weight bundle.**
- **Increased field lengths for: storage area names (20), marker name (50), model name (50), piece name (50), size (30), fabric type (10).**

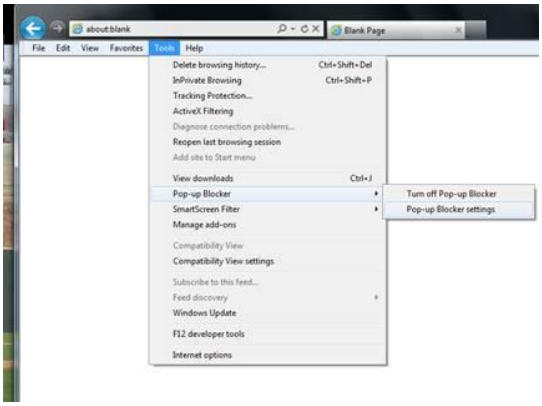
Note: if don't use the larger length names in AccuMark V9, then it will work with older PLM versions.

Appendix D: Microsoft Internet Explorer Settings

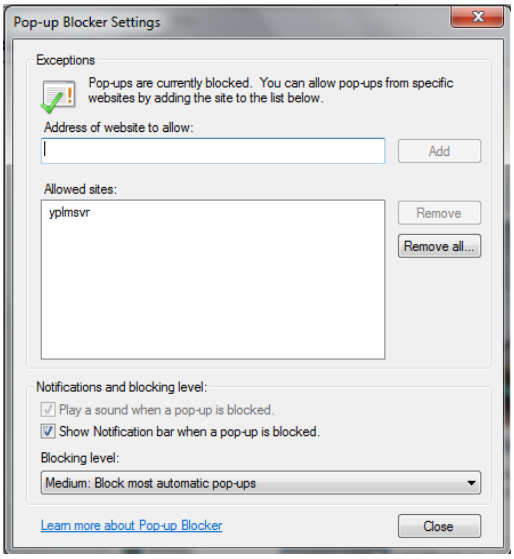
For YuniquePLM™to operate correctly certain settings in Microsoft Internet Explorer need to be checked. First, make sure that all pop-up blockers are either turned off, or set to allow pop-ups from the YuniquePLM™web server. If additional browser toolbars are installed (i.e. Google, Yahoo, etc.), these toolbars also have settings for blocking pop-ups.

Please make sure your IE settings are as follows:

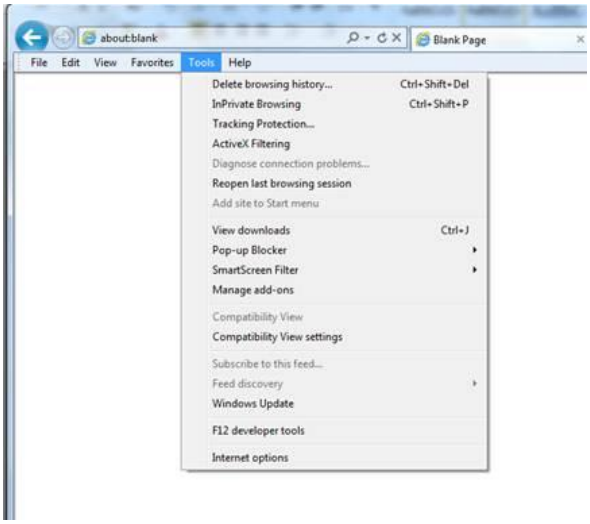
- **In the IE Tools menu select "Internet options", "Pop-up Blocker", "Pop-up Blocker settings". You can turn off the Pop-up blocker, or if you want to leave it on, select Pop-up blocker settings.**



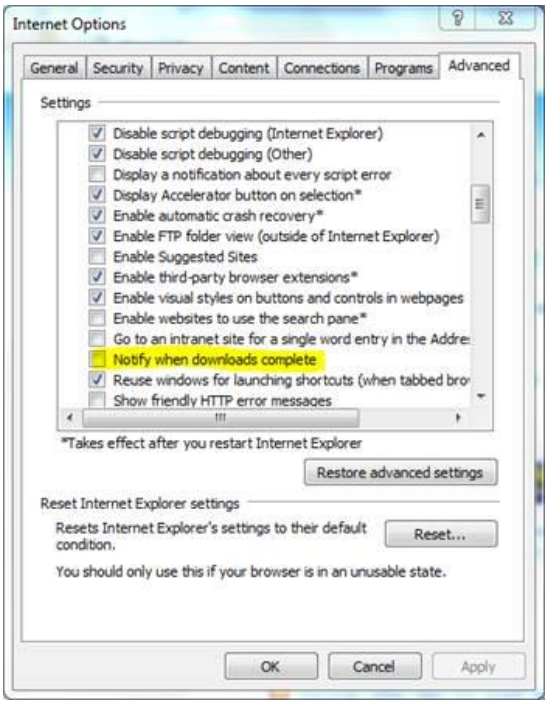
- **In the "Address of website to allow" box enter the website URL or IP address and press the "Add" button, then "Close"**



- **In the IE Tools menu select “Internet options”**

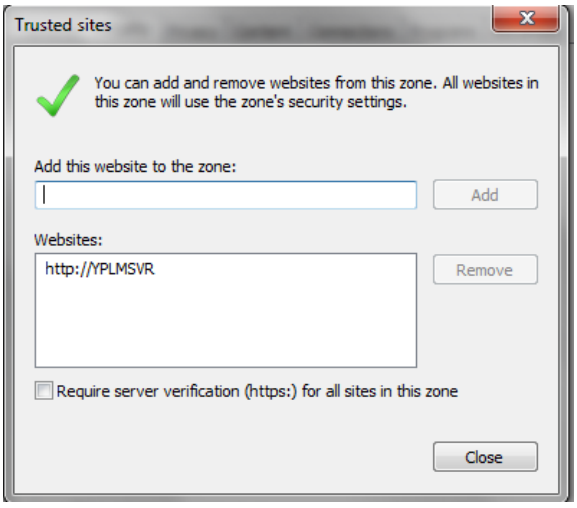


- **Select the “Advanced” tab, turn off ”Notify when downloads complete”.**



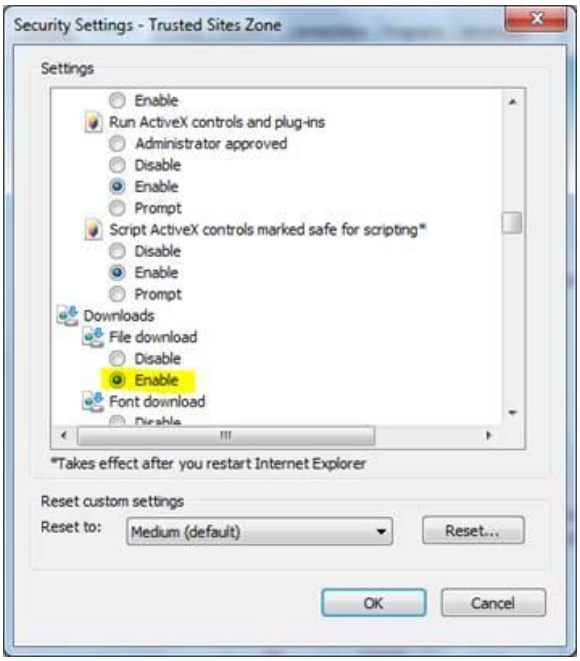
- **Select the "Security" tab and click on the "Trusted sites" ICON.**

- **Enter the website URL or IP address into the "Add this website to the zone" box and press the "Add" button, then the "Close" button.**
  Note: the "Require server verification (https:) for all sites in this zone" should be unchecked.

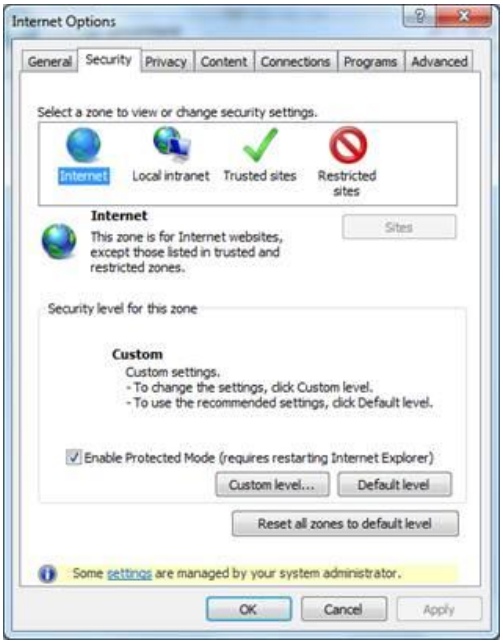


- **With the “Trusted sites” ICON still selected, press the “Custom level…” button**

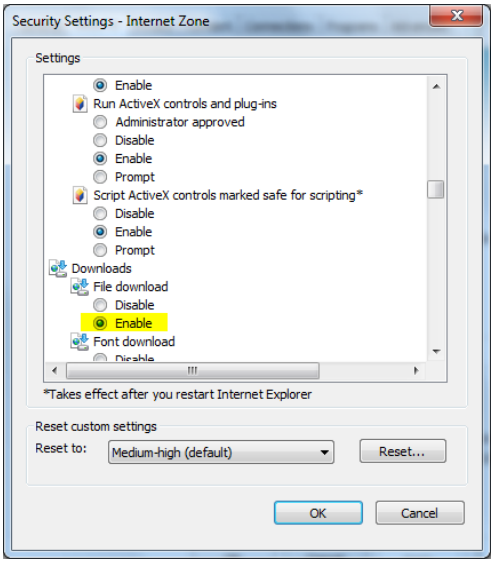
- **Scroll through the “Security Settings - Trusted sites Zone” list and find “Downloads” and select “Enable”, then press the “OK” button**



- **Select the Internet ICON and press the “Custom level…” button**



- **Scroll through the “Security Settings - Internet Zone” list and find “Downloads” and select “Enable”, then press the “OK” button**



- **You should also set the “Local Intranet” Downloads to Enable as well.**

Appendix E: YuniquePLM™ Maintenance and Backup Plan

Back up your Databases

At Gerber Technology, we dedicate ourselves to providing our customers a quality product. Ensuring that software glitches, hardware failures, or vindictive acts do not compromise the creative work your users do is critical. The single most important thing that you can do is to back up your database. The following questions will help determine how frequently your database(s) should be backed up.

1. **How much data/work are you willing to lose?**
   Let us assume putting a line in requires the creation of 160 folders during a 40-hour workweek or 4 folders per hour. That means you will lose 4 folders per hour of down time.
2. **What types of resources are available to perform database backups?**
3. **How stable is your environment? Do you have network outages?**

Check your Database for reliability

Just because a database backup has recently been performed does not mean that you can restore your database. The database backup needs to be:

a) Checked for errors. (DBCC CHECKDB WITH NO_INFOMSGS)

b) Restored during a testing phase to ensure that the backup plan works. You do not want to find out during an emergency that your database backup cannot be restored.

Once you have restored a database (at least once) and are checking for errors, your investment in people, time and money are protected.

Backup and recovery for SQL Server

SQL Server supports 3 different types of backups:

1) Full database backups: All of the data in your database is saved. This is effectively a database snapshot.

2) Differential database backups: Saves off all of the data that has changed since the last time a full database backup occurred. If your last full database backup was at 1:00 A.M. and your most recent differential database backup occurred at 3:00 A.M., it would have recorded all changes in the database between 1:00 A.M. and 3 A.M.

3) Transaction log backups: Saves off on an individual basis all changes/transactions that have occurred in the database.

Gerber recommends to our customers the following information:

a) **Backup your database regularly (with a full database backup) every night.**
   a. **Perform a transaction log backup at least once per evening and preferably every 8 hours. As long as the log file gets backed up your valuable work is protected.**
b) **Backup the 'master' database after an upgrade.**

In the event of total disaster (i.e. disk crash) your worst data loss under the above mentioned scenario is 8 hours' work lost. However, if Raid 5 is being used your window of time data loss is much less than 8 hours.

To restore your database from the full database backup and transaction log backup mentioned above, you will need to:

1) **Restore the most recent full database backup.**
2) **Apply all transaction logs created after the last full database backup was created.**

Checking your SQL Server Database for errors

There are several routines that are supplied by the SQL Server database vendor that help to check a database for errors. They are all part of the DBCC (Database Consistency Check) command. Each of the commands mentioned below should be scheduled on a periodic basis with the results checked for errors.

a) **DBCC CHECKDB - Checks the allocation and structural integrity of all the objects in the specified database.**
b) **DBCC CHECKALLOC - Checks the allocation and use of all pages in the specified database.**

Each of these routines is described in detail in the SQL Server Transact SQL (T-SQL) manual.

❖ **Note: Companies typically use 3rd party backup software to back up their databases. Always remember to purchase the plug-ins that allows a database backup to occur while it is online. Otherwise, you may find that out that your database backups are worthless because the files were locked and they did not actually get saved off to tape or disk.**

Image files

YuniquePLM™does not store any images within the database. All images are stored on a file server. The RDBMS system backup does not save the images stored on the Windows file system to tape/disk. You need to backup these separately.

Each time that you perform a full database backup, differential database backup, or transaction log backup you should be performing an incremental or full backup of your image files on your Windows system. This incremental backup of your image files assumes that a backup of the image files currently exist.

Server

Please remember to back up your server. If you do not maintain a relatively current backup of your system along with any necessary emergency boot disks you may have to install your server, RDBMS and the YuniquePLM™system from scratch. It takes significantly more time to recover from a server failure if you need to re-install than if you just reload from an archive.

Summary

Create 1 or more maintenance plans to accomplish the following:

1. **Rebuild the table indexes of the YuniquePLM™database at least monthly. Increase frequency depending on transactional volume.**
2. **Reorganize indexes and update statistics at least weekly. Increase frequency depending on transactional volume.**
3. **Backup the transaction log of the YuniquePLM™database on a scheduled periodic basis. Depending on load this could be anywhere from every 15 minutes to every 8 hours. This depends on corporate risk tolerance.**
4. **Shrink the transaction log of the YuniquePLM™and Reportserver databases. This will eliminate log creep. Backing up the transactions logs will not actually shrink the transaction log file size.**
5. **Perform scheduled full database backups of the YuniquePLM™and ReportServer databases. This should be performed at least once a day.**
6. **Move/Delete old transaction log backups that are more than x days old (x is infrastructure based). Never delete the log backups if they have not been saved to offline storage.**
7. **Move/Delete the full database backups for the YuniquePLM™and ReportServer databases. Do not delete old backups if they have not been saved to offline storage. Just like transaction log backups the frequency of cleanup is typically tied to corporate infrastructure (AKA disaster recovery policy, and disk storage availability). It is always easier and faster to restore from an online backup than it is to from tape/offline storage.**

Appendix F: Temporary File Folder Maintenance Procedures

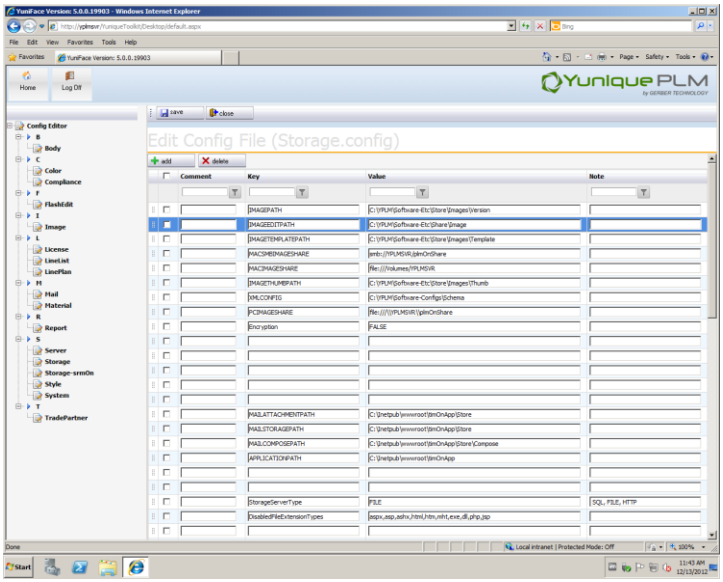
Over time, temporary file folders created by YuniquePLM™ may grow in size and if allowed to grow too large, will consume available drive space possibly causing serious server problems. To prevent failures due to lost drive space capacity, these temporary file locations are managed automatically through normal YuniquePLM™ program procedures and through the use of an automated scheduled script procedure. Normal program operations should effectively control temporary file folder sizes. However certain events such as changes to system passwords, folder structures or system crashes might prevent YuniquePLM™ from effectively removing all temporary files.

AUTOMATED DEFAULT PROCESS

The YuniquePLM™ setup utility will install, if selected, a visual basic script file to run as a scheduled task to clean up the necessary temporary file folder. The script file called *DeleteTemporaryFiles.vbs*, by default, is scheduled through Window's Task scheduler to run daily to remove any temporary files over a certain age. Under normal circumstances, these actions are sufficient to control the temporary file folders sizes. If the automatic temporary file control system fails to run and the temporary file folders grow in size, they will need to be manual cleaned.

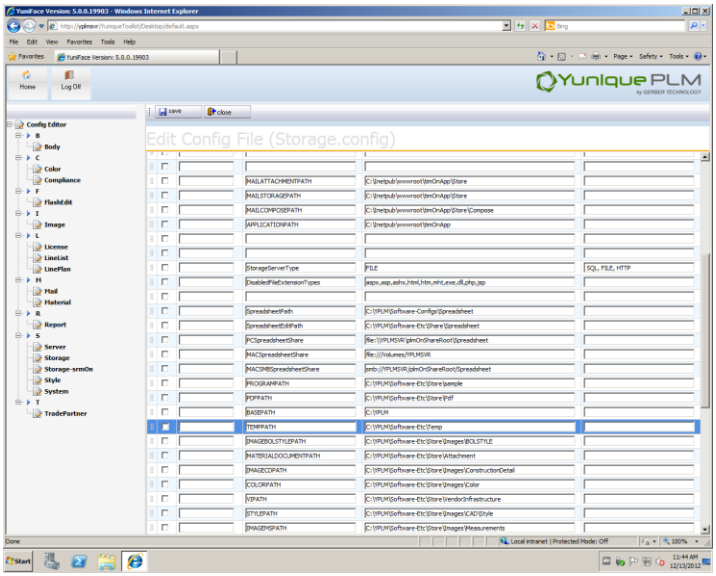
Manual File Control

YuniquePLM™ places the temporary files it creates into two separate folders. The exact name and location of each folder can be found using the YuniqueToolKit in the "storage" configuration section. The two folder locations for temporary files are defined in the "ImageEDITPATH" and "TempPATH =" keys of the storage config section of the YuniquePLM™ database.



The ”IMAGEEDITPATH” key specifies the folder name and path location where temporary image files are placed. Temporary image files are placed in this directory while images are being edited in YuniquePLM™and are immediately removed when the image being edited is either updated or image editing is cancelled.

Residual files may remain in the directory and collect over time. This directory should be checked and cleared out if needed every 60 days.



The “TempPATH’ key defines the folder and path location of all other temporary files created by YuniquePLM. This folder is typically a top level “Temp” folder. Temporary files located in this location are placed in the directory within a hierarchy of folders. The top level files and all sub folders should be deleted when clearing out the temp directory.

The Temp folder has the ability to grow in size and should be checked regularly, approx. every 30 days.

Appendix G: LDAP Integration

When LDAP Integration is enabled, YuniquePLM™will authenticate a user's login with an LDAP/Active Directory server. When a user enters their YuniquePLM™login name and password the YuniquePLM™database searched to see if the user has an active YuniquePLM™account. Then YuniquePLM™verifies the user ID and password using the LDAP/Active Directory server. If LDAP/Active Directory authentication fails, or the user's LDAP/Active Directory account is inactive, login to YuniquePLM™fails. YuniquePLM™permissions are maintained in the YuniquePLM™database, LDAP/Active Directory is only used to authenticate a user's login. When LDAP Integration is enabled, passwords are not maintained in the YuniquePLM™database.

Creating YuniquePLM™accounts using LDAP/Active Directory

YuniquePLM™user account names must match LDAP/Active Directory user account names. Before activating LDAP Integration add a YuniquePLM™user account name that will be a YuniquePLM™administrator and add to the YuniquePLM™Administrators group. This user account name must have a matching LDAP/Active Directory account name.

Activate LDAP Integration (as documented below) and login to YuniquePLM™using this account name and the LDAP/Active Directory password.

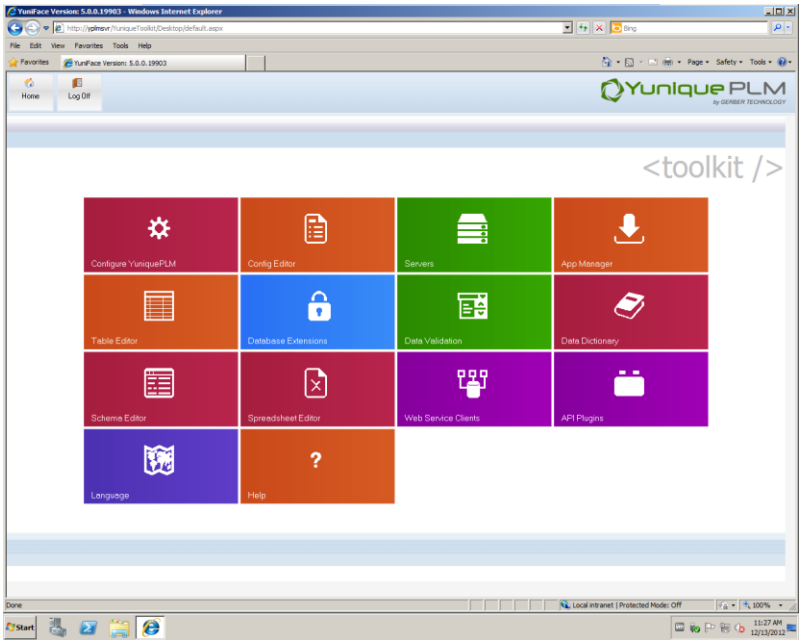
- **From the plmOn home screen select the "Admin" folder**
- **Select the "Team" folder**
- **Select the "New" button**
- **YuniquePLM™will display user names retrieved from the LDAP/Active Directory server in the left window.**
- **Select the users that will be allowed to login to YuniquePLM™in the left window and add them to the right window**
- **Press the "Add" button to add the selected users to the YuniquePLM™"Team" list**

Enabling LDAP Integration

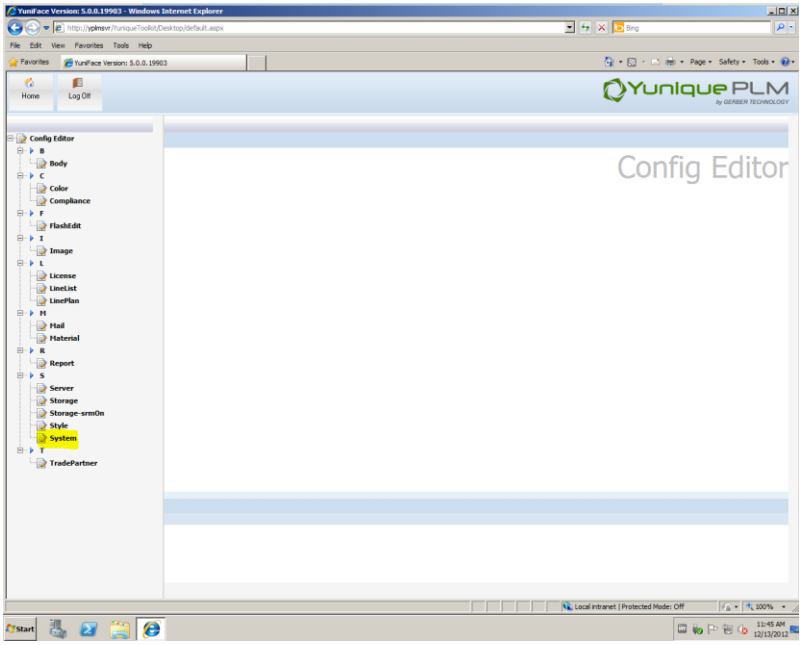
The following information is needed:

- **The fully qualified domain name of the LDAP/Active Directory server**
- **A domain user ID and Password that has read permissions to access the domain user information.**

Login to the YuniqueToolkit and select Config Editor



Select the System configuration



Find the following keys and set the values accordingly:

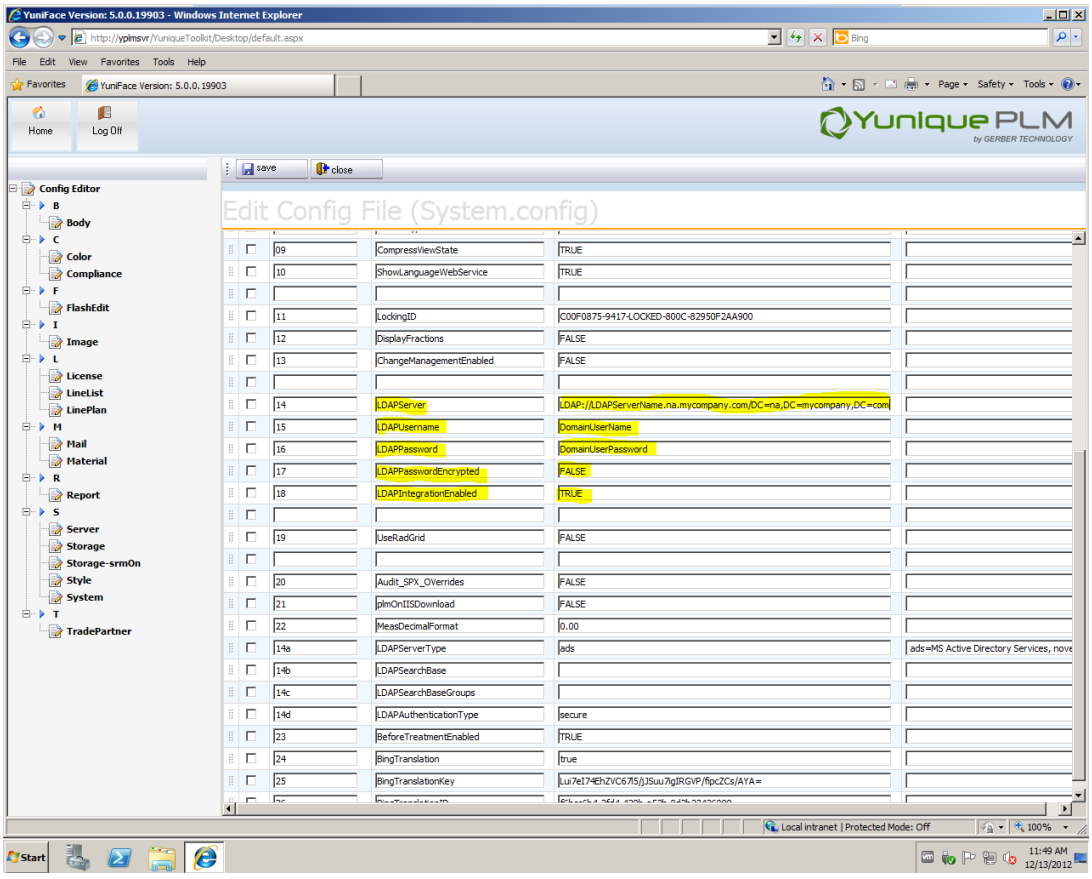
Key	Value
LDAPServer	LDAP://LDAPServerName.na.mycompany.com/DC=na,DC=mycompany,DC=com
LDAPUsername	DomainUserName
LDAPPassword	DomainUserPassword
LDAPPasswordEncrypted	TRUE or FALSE
LDAPIntegrationEnabled	TRUE or FALSE

For the LDAPServer key, "LDAPserverName.na.mycompany.com" can be the fully qualified domain name for the LDAP/Active Directory server, and "DC=na,DC=mycompany,DC=com" are the components of the fully qualified domain name, or can be the LDAP/Active Directory server name and TCP/IP port address, such as "LDAPserverName:3211".

If you do not want the password entered as clear text it can be encrypted using a utility program and the encrypted password entered for the LDAPPassword value.

For an unencrypted password, the LDAPPasswordEncrypted key should be set to FALSE.
For an encrypted password, the LDAPPasswordEncrypted key should be set to TRUE.

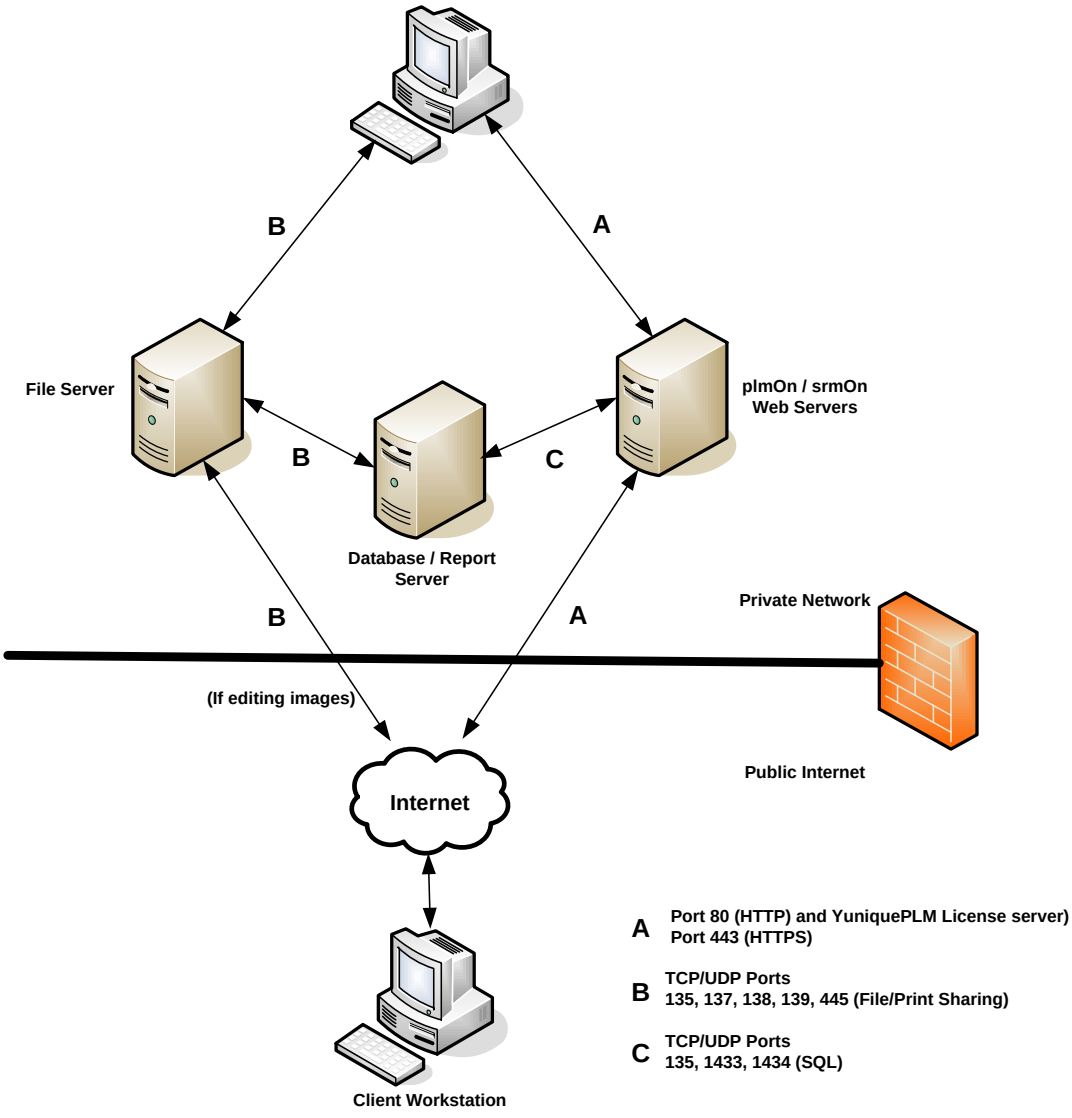
Set the LDAPIntegrationEnabled key to TRUE to enable LDAP Integration.



Press the "Save" button to save your entries.

Appendix H: YuniquePLM™ TCP/IP Port Utilization

YuniquePLM TCP/IP Port Utilization



Appendix I: YuniquePLM™ Impersonation And User Accounts

YuniquePLM™requires three (3) Windows user accounts

All three accounts must be local administration accounts, or domain user accounts with local administrator rights on the YuniquePLM™servers

1. Used by YuniqueSolutions during remote connections for remote access, configuration, and administration (ex: PLMRemote1)
2. Used by YuniqueSolutions as a backup/joint access during remote connections, configuration, and administration (ex: PLMRemote2)
3. Used as the Impersonation account for the YuniquePLM™website and/or database access. (ex: PLMAdmin) (Required)

Please note: The impersonation account meets the needs for security for client/server web applications. This account should NOT be used for remote access. For more details, refer to MS article: http://technet.microsoft.com/en-us/library/cc961980.aspx

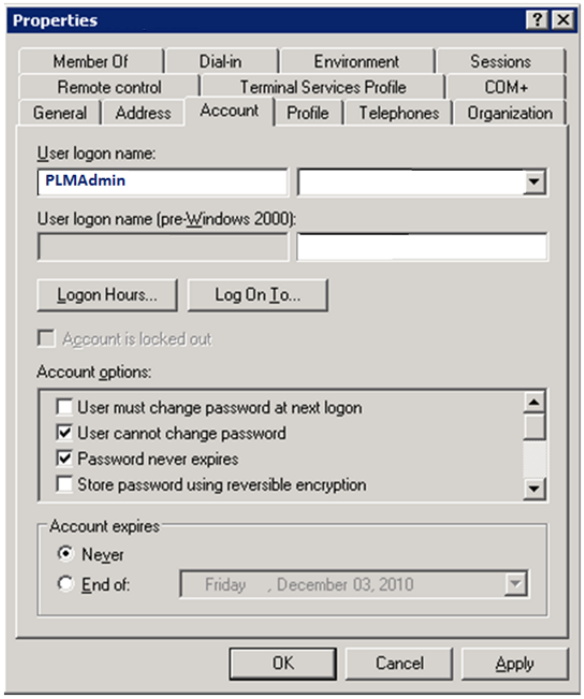
For YuniquePLM™to function properly, set up the impersonation account (ex: PLMAdmin) with the following options:

Password set not to expire:
Check 'Password never expires'

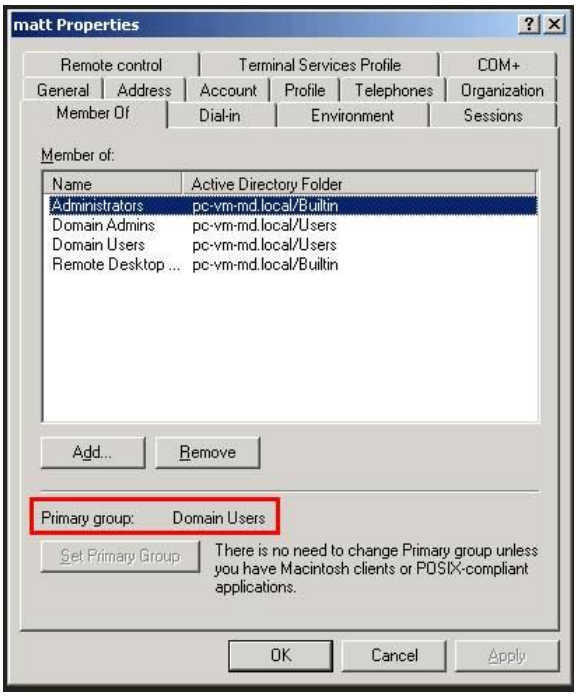
Cannot change password:
Check 'User cannot change password'

No Requirement to change password at next login
Uncheck 'User must change password at next login'

In YuniquePLM™version 4.1 and higher:
Security Policies\User Rights Assignment 'Local login as a Service' permissions needed (local login where plmOnServices is installed)



Active Directory example of user set up with correct credentials



Active Directory example of group administration

Appendix J: YuniquePLM™ PreInstallation Worksheet

YuniquePLM Pre-Installation Worksheet

Company Name:		Date:	
Contact Name			
Email and Phone			

To make your YuniquePLM installation proceed as smoothly as possible, please ensure the servers and workstations meet the basic hardware and software requirements as outlined by your PLM Professional Services Manager.

Please complete and return this information to PLMSupport@GerberTechnology.com or via fax to 972.238.8683.

Before an installation can be scheduled this form must be completed and returned to Gerber Technology.

Basic Information

	Environment Type:	☐ Development	☐ QA	☐ Production	☐ Other
	YuniquePLM Version:	☐ Latest	☐ Specific *(Please specify)*		
	Type of Installation:	☐ New	☐ Upgrade	☐ Migration	
	Notes:				
	Location:	☐ Customer Site	☐ Gerber In House *(Development or QA only)*		
	Server Arrangement:	☐ Single Server	☐ Multi Server *(Specify number)*		
Gerber Use Only	Number of Licenses:	For Client:		SO number	
		For Gerber:			

Database Server Information *(SQL 2008R2 or SQL 2012)*

	Name of SQL Server:
	IP Address:
	Operating System & Version *(**2008R2 or 2012**)*:
	OS Language *(Must be client's native)*:
	Login Name/Password *(Must have full admin rights)*:
	Number of Processors:
	Installed RAM:

Web/Application Server Information

	Name of Web Application Server:
	IP Address:
	Operating System & Version *(**2008R2 or 2012**)*:
	OS Language *(Must be client's native)*:
	SQL Management Studio Installed *(**Recommended**)*:
	Login Name/Password *(Must have full admin rights)*:
	Number of Processors:
	Installed RAM:
	Drive on which to install data *(e.g. E:)*:

File Server Information

	Name of File Server:
	IP Address:
	Operating System & Version *(**2008R2 or 2012**)*:
	OS Language *(Must be client's native)*:
	Login Name/Password:
	Number of Processors:
	Installed RAM:
	Drive on which to install application *(e.g. E:)*:

Report Server Information *(SQL 2008R2 or SQL 2012)*

	Name of File Server:
	IP Address:
	Operating System & Version *(**2008R2 or 2012**)*:
	OS Language *(Must be client's native)*:
	Login Name/Password *(Must have full admin rights)*:
	Number of Processors:
	Installed RAM:
	Drive on which to install application (e.g. E:):

Target Installation Date
Target Connection Test Date *(At least one week prior to installation)*

In preparation for the installation of YuniquePLM, please have the following items installed and functioning prior to your assigned installation date

Windows Server 2008R2 or 2012	☐ Application Server
	☐ File Services
	☐ Web Server
Microsoft SQL Server 2008R2 or SQL 2012	☐ Database
(Standard default configuration settings)	☐ Analysis
	☐ Reporting
	☐ Business Intelligence Development Studio
	☐ Integration Services
	☐ Management Tools - Basic
	☐ Management Tools - Complete
If multi-server setup:	☐ Domain Impersonation Account

Remote Access Information

Preferred Method of Remote Connectivity (Initial connection) *(If applicable)*

☐ VNC ☐ Remote Desktop
☐ Direct Network (VPN) (*Provide link to VPN client*)
☐ Other *(Please specify)*
IP address:
Username/Password:

Remote Access Method

☐ NetMeeting ☐ Remote Desktop ☐ WebEx ☐ Terminal Server
☐ Other *(Please specify)*
IP address:
Username/Password

Preferred Method of Obtaining Software

☐ Gerber FTP ☐ USB Flash Drive
☐ Client FTP URL:
Username/Password:

Domain Impersonation Account

Username:
Password:

SQL 'SA' Account

Username:
Password:

SMTP Information

SMTP Server:
Port:
Username/Password *(If required)*:
"From" Email Address:
Email Address to Receive Alerts:

Interface AccuMark database with this system? ☐ Yes ☐ No

CAD Relational Database Server Name:
CAD Relational Database Name:
Windows / SQL Login Name/ Password:
Accumark Version Installed:

Installation Details

Date Started	Click here to enter a date.
Date Completed	Click here to enter a date.
Time Spent	
Issues	