

Chapter 3 – Installing Windows SharePoint Services 3.0 onto Windows Server 2003

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3.1 Scope

This chapter will examine the process of installing Windows SharePoint Services v3.0 (WSS v3) onto a new stand alone Windows 2003 server. If you are planning to install WSS v3 onto a Windows Small Business Server 2003 (SBS) then see – **Chapter 4 – Installing Windows SharePoint Services 3.0 onto Small Business Server 2003.**

For information about upgrading and migrating from an existing version of Windows SharePoint Services see – **Chapter 7 – Migration and Upgrading.**

3.2 Prerequisites

There are a number of requirements on any system onto which you plan to install Windows SharePoint Services v3.0 (WSS v3). These minimum requirements are:

- Windows Server 2003 Service Pack 1
- Dot Net Framework Version 3.0
- Internet Information Services (IIS) configured with ASP .NET

The following requirements are necessary if you wish to implement additional features in WSS v3 :

- SMTP service

Data storage location

WSS v3 has the ability to store data in a number of locations, including Microsoft SQL Server 2005 Express Embedded Edition (SSEE) that comes with WSS v3. The planned location of your WSS v3 data will have an impact on the installation method you are able to choose. For further information about these options and impacts please see – **Chapter 8 - Database Operations.**

Once these requirements have been met it is also advisable to ensure that the machine on which you wish to install WSS v3 is updated with all the latest patches and service packs. It is also advisable to do a reboot of the system prior to a WSS v3 installation to ensure a clean run up environment.

More information about WSS v3 prerequisites can be found in **Chapter 14 - Prerequisites**

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3.3 Installation

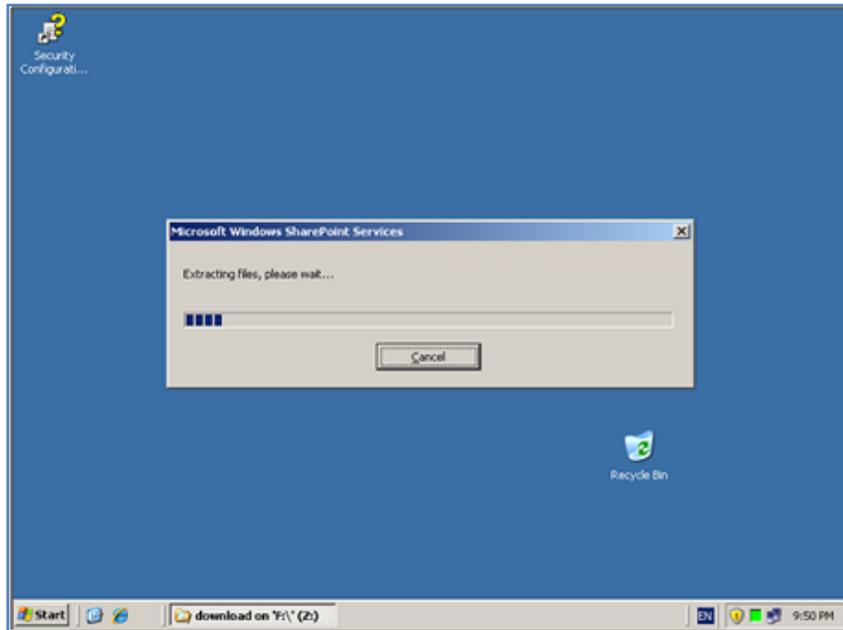
We'll cover the following installations:

- Advanced
- Default
- Stand Alone

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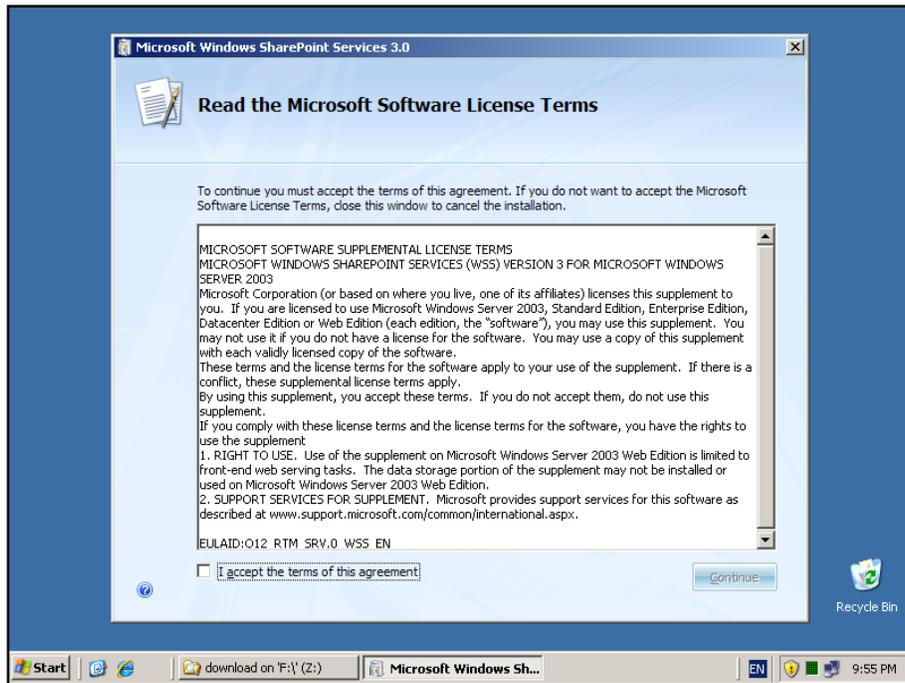
Advanced Installation

After meeting all the server prerequisites and downloading the WSS v3 software from the Microsoft web site (or from the subscriber DVD) and logging into the Windows Server 2003 as an administrator, commence the installation by **double clicking** on the sharepoint.exe file.

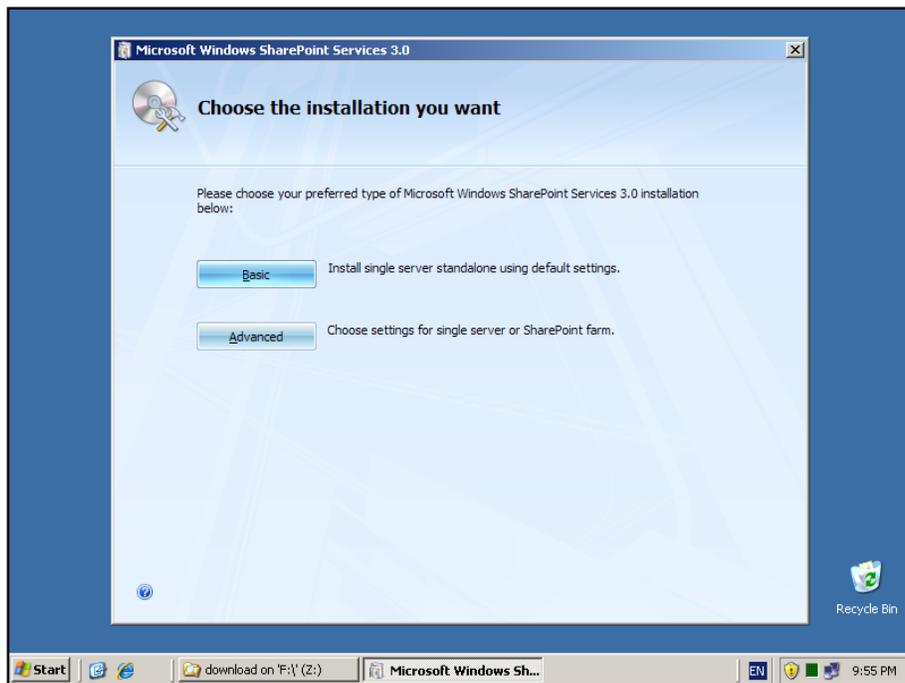


The setup file will be checked and extracted to your machine and then the installation process will commence.

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The first window to be displayed will be the *Microsoft Software License Terms*. After reviewing this, check the - **I accept the terms of this agreement** in the lower left of the window and press the **Continue** button.



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The next window to be displayed will ask you for the type of installation you wish. It is important to pause here and consider the options that are presented and the ramifications they may have for your installation.

Installation type

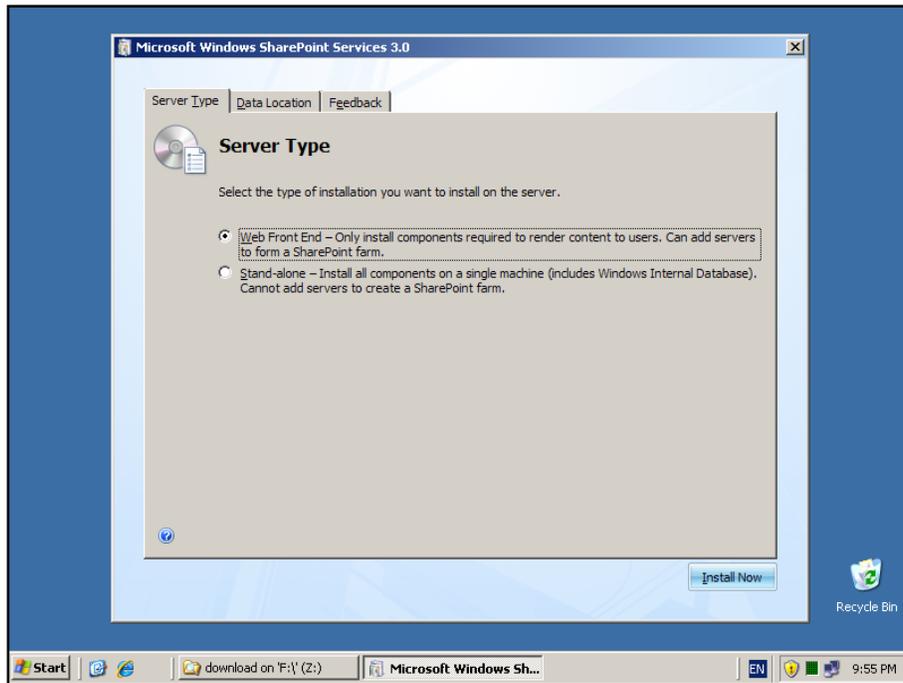
- a. **Basic** – Selecting this option will install WSS v3 onto your server using the standard defaults. You will NOT be prompted about things like file locations, database locations or whether you wish to only create a web front end. Selecting this option will automatically complete the following tasks:
 - a. Install WSS v3 programs to *c:\program files\common files\Microsoft shared\web server extensions\12\data*
 - b. Install Microsoft SQL Server 2005 Express Embedded Edition (SSEE) as the WSS v3 storage option and install this automatically to *c:\windows\system32\ssee\mssql.2005\mssql\data*. You will be unable to upgrade from this version at a later stage if required.
 - c. Configure a WSS v3 web site on port 80.
 - d. Configure a WSS v3 team site collection.
 - e. WSS v3 will be configured for a single stand alone server. You will be unable to create a SharePoint farm later if required.

Note that using the Basic option you are unable to change any of the selections mentioned above.

- b. **Advanced** – Selecting this option will provide you with the full range of options with your WSS v3 installation. However, it is important to note that you will have to complete ALL of the configuration steps and selections (including the creation of a WSS v3 site collection) manually.

To give you a better idea of all the options that are available we will initially consider the *Advanced installation* option, which is commenced by pressing the **Advanced** button.

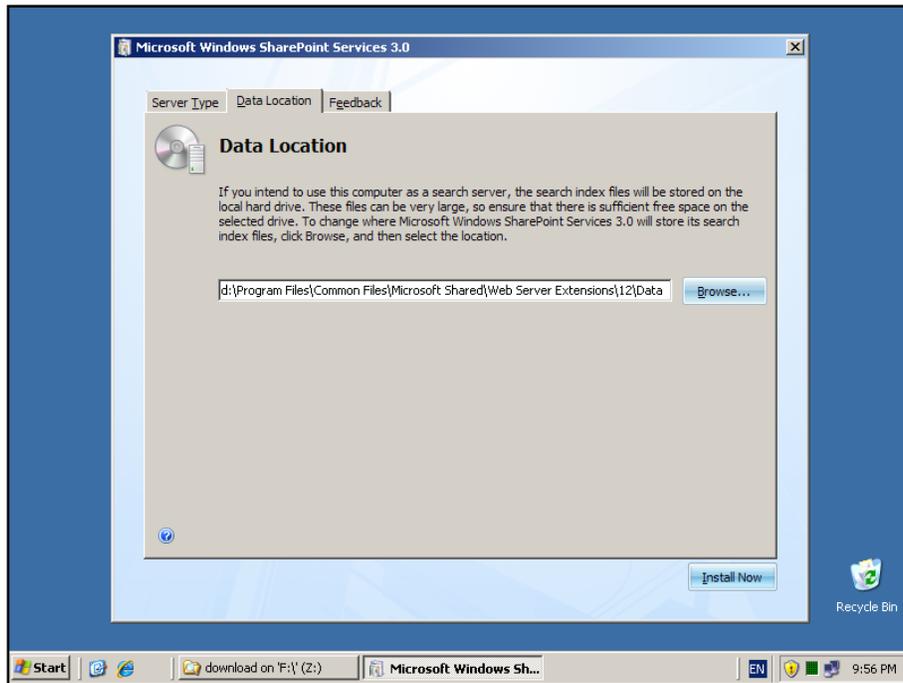
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The next window that is displayed after pressing the **Advanced** button is shown above. On the first tab you can select what type of installation you desire. Here again, the choices that you make can have a major impact on your installation going forward.

1. **Web Front End** – This option is the most flexible because it allows you to select your own data storage location (using SQL Server) as well as allowing you to add additional WSS v3 servers into the same 'SharePoint farm' at a later stage. If you wish to store your WSS v3 data in an SQL server or plan to expand the number of servers in your WSS v3 installation then you should select this option but you need to have the SQL server in place prior to this.
2. **Stand-alone** – This option will not allow you to choose your own data storage location. It will also install the Microsoft SQL Server 2005 Express Embedded Edition (SSEE) into `c:\windows\sysmsi\ssee\mssql.2005\mssql\data`. Another limitation of this installation option is that you are unable to add additional servers into this configuration to create a 'SharePoint farm' for improved reliability and load balancing. If do not plan to use a data storage program like SQL Server (non embedded) for your WSS v3 data and do not plan the need of additional WSS v3 servers for a 'SharePoint farm' then select this option.

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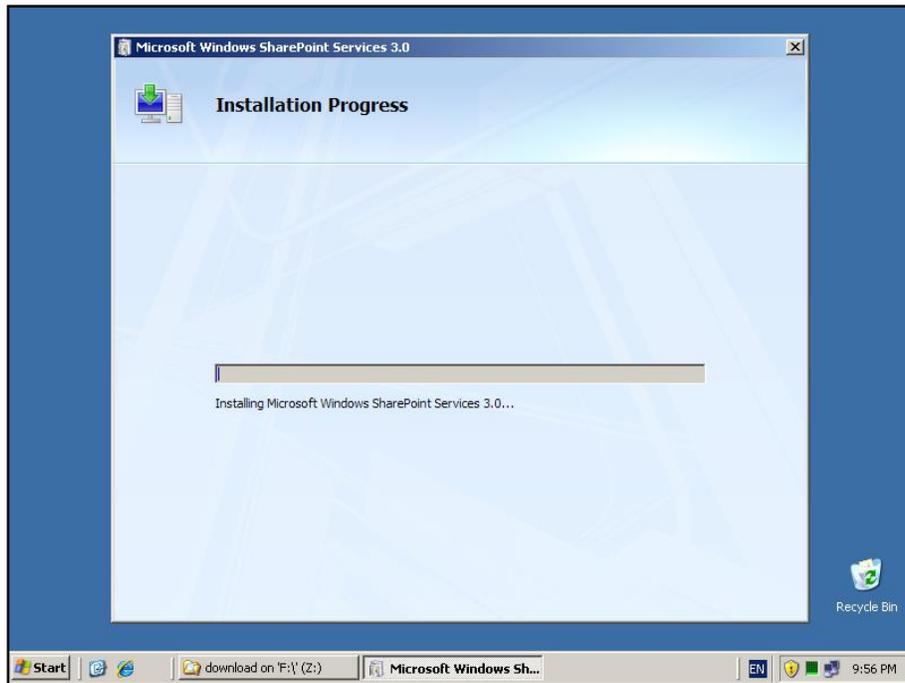


The *Data Location* tab allows you to specify where the WSS v3 program files will be stored. By default these will be installed in *c:\program files\common files\Microsoft shared\web server extensions\12\data*. You can specify any location by changing the entry displayed. It is recommended that you only change the drive letter if necessary to ensure compatibility and ease of future support.

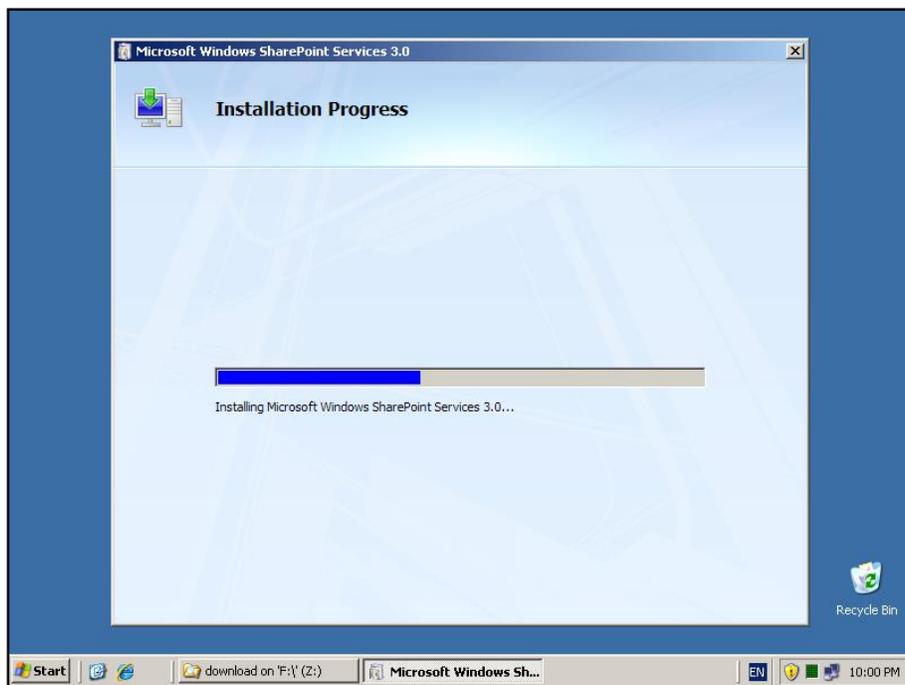
Once you have made your selections click the **Install Now** button in the lower right of the window to continue.

Our installation here will continue along the installation of the *Web Front End* option since it illustrates all the available options.

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WSS v3 will now be installed onto your system with the options you have previously selected.

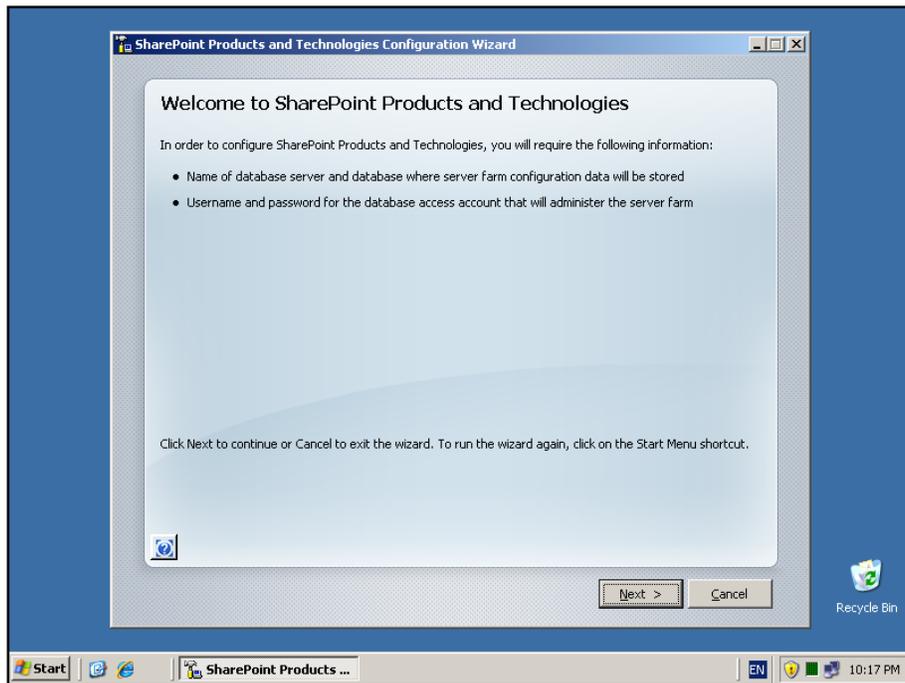


You will not be prompted for further input until the installation progress bar has reached the far right hand side.

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When the installation has successfully completed you will see the above window. By default, the *Run the SharePoint Products and Technologies Configuration Wizard now* option is selected. If you wish to configure WSS v3 at a later stage simply uncheck this option. Press the **Close** button to continue.

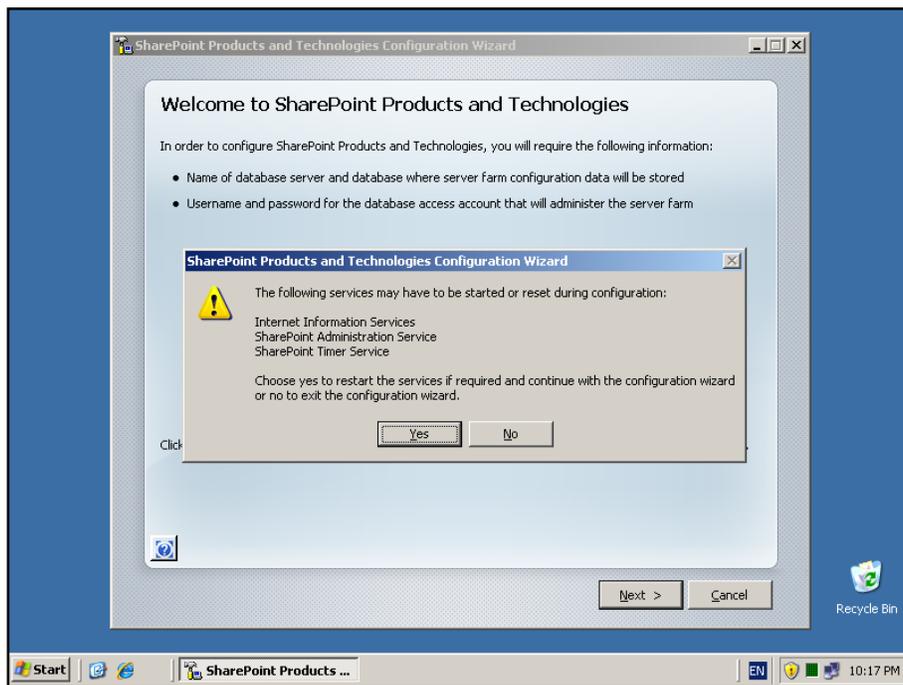


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If you selected to run the configuration wizard then the following window will appear. The window warns you that to complete the wizard you require:

- Name of database server and database where server farm configuration will be stored. You must have this database in place prior to proceeding.
- Username and password for the database access account that will administer the server farm.

Press the **Next** button to continue.



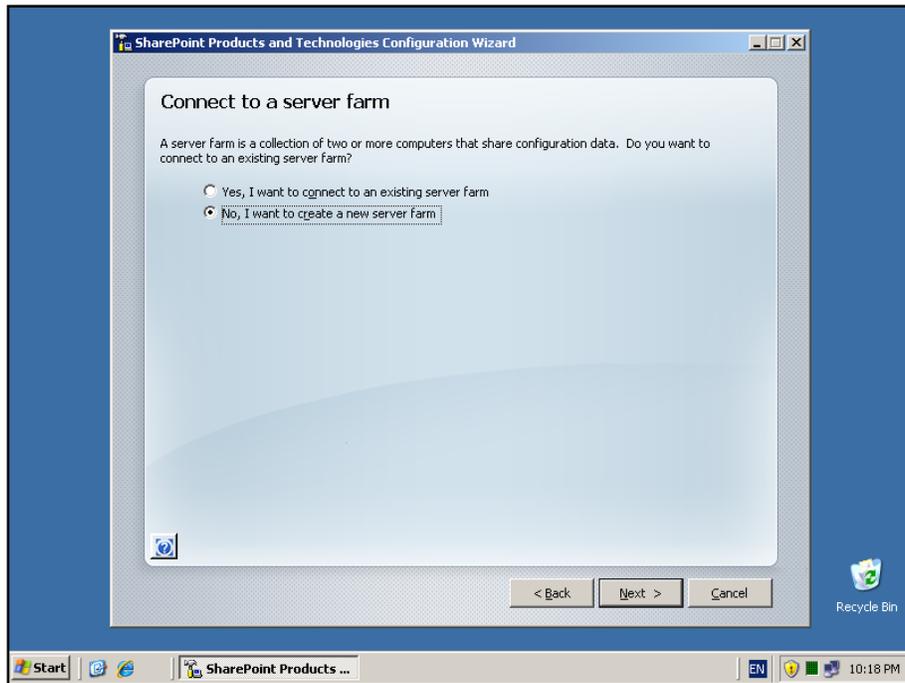
You will now receive a warning that the wizard will start or restart the following services:

- Internet Information Service (IIS)
- SharePoint Administration Service
- SharePoint Timer Service

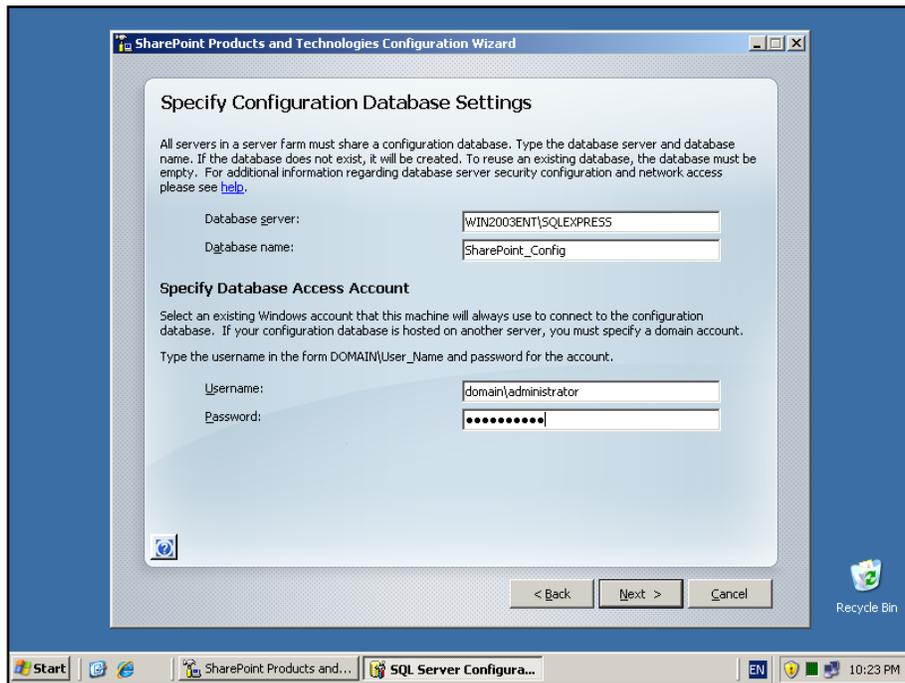
You need to be aware that this operation may have an impact on other applications that use these services which could affect network users interacting with them.

If you wish to proceed with the installation press the **Yes** button.

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You are now presented with the option to either connect to an existing WSS v3 'SharePoint farm' or create a new server farm. In this case because this is a new installation, select – **No, I want to create a new server farm** and press the **Next** button to continue.

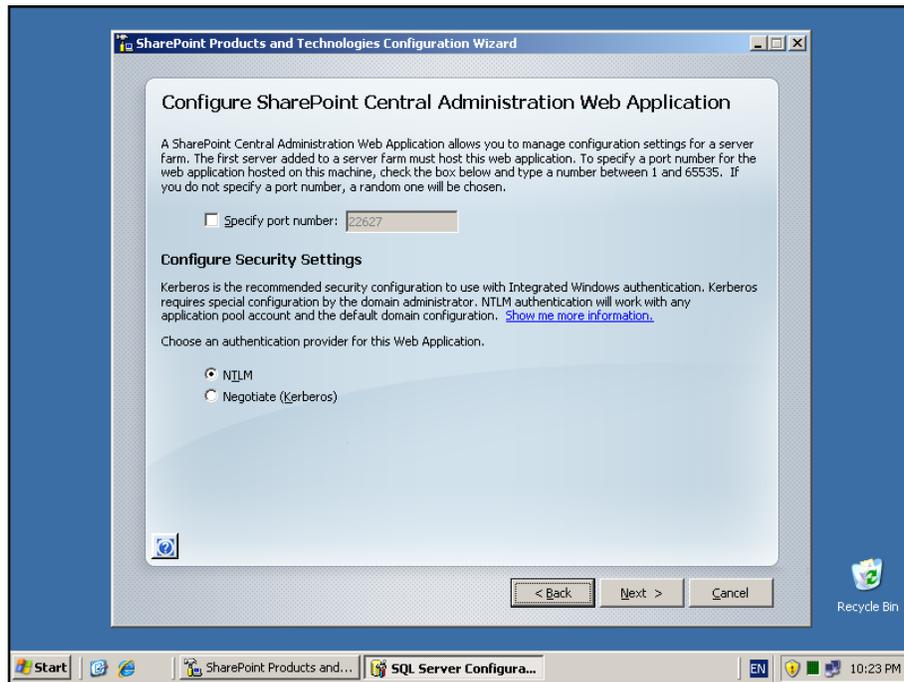


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Because you selected the option to create new farm you will now be prompted for the location of your database server. The *Advanced Installation* option selected previously does not automatically install the Microsoft SQL Server 2005 Express Embedded Edition (SSEE) and thus you will need to already have a compatible database server available on your network. Typically, this database server will be Microsoft SQL Server (2000, 2005 Express, 2005 Workgroup, 2005 Standard, 2008 etc). For more information about the WSS v3 database options see - **Chapter 8 – Database Operations**.

Note that you may be required to enter your database server name as `<SERVER>\<INSTANCE>` and the database access account as `<domain>\<username>`. By default the WSS v3 configuration database will be called *SharePoint_config*, which you are able to change if desired.

When these options are complete, press the **Next** button to continue.



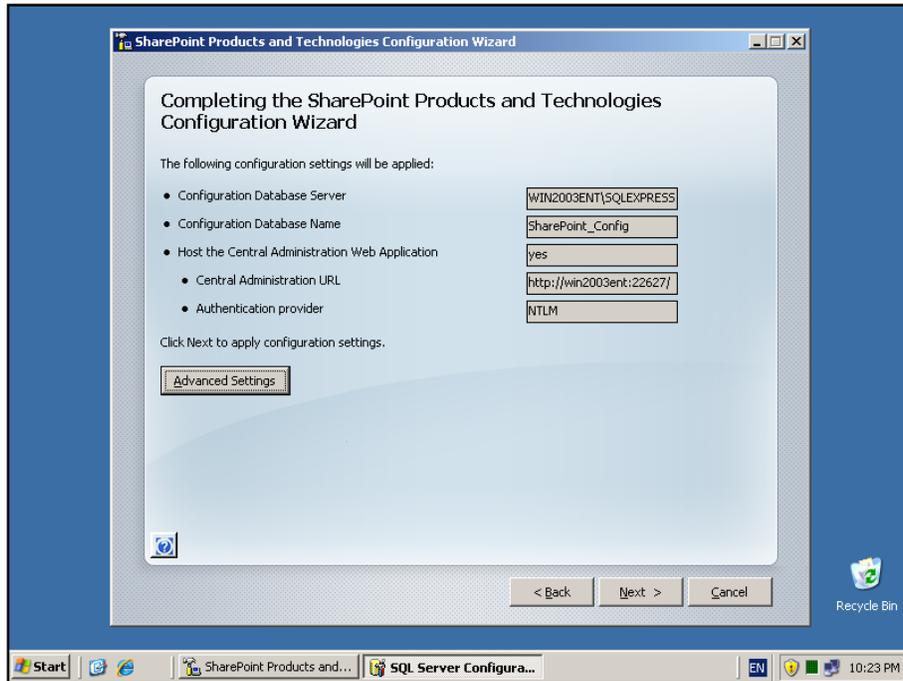
Now you will be prompted to set the SharePoint Central Administration Web Site port number if you want. By default, the installation will choose a random port. This configuration will ensure that the SharePoint Central Administration site doesn't conflict with an existing web site (especially the default web site on port 80). It is recommended that you leave this option unchecked so the installation can select a free random port.

You are also prompted for the authentication provider required for WSS v3 security. This provider is referenced by WSS v3 to determine who has access to the information

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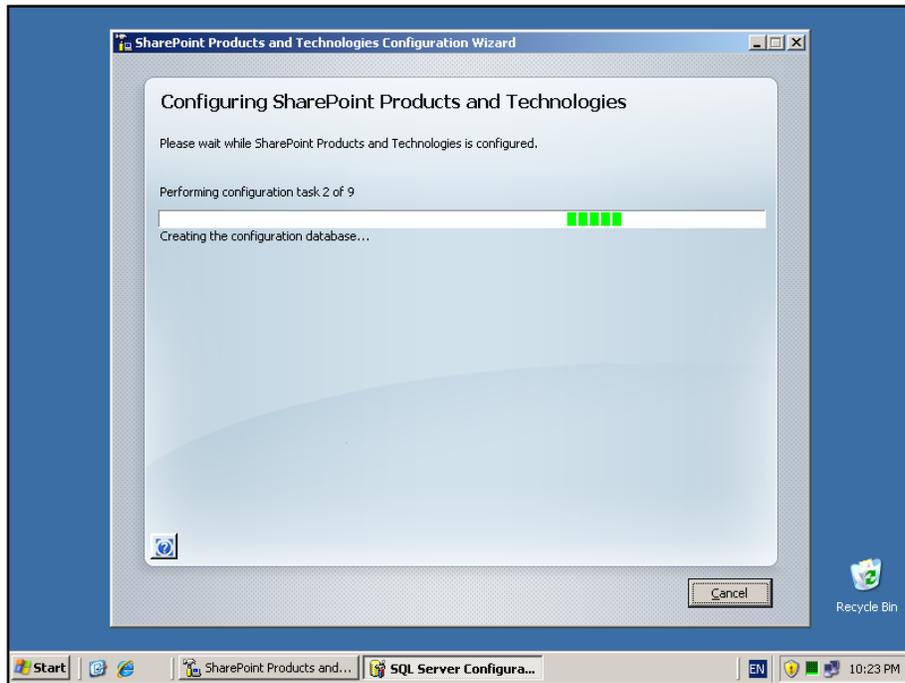
in WSS v3. It is possible to change this at a later stage, however initially, it is recommended that it be left as NTLM.

When this is complete press the **Next** button to continue.

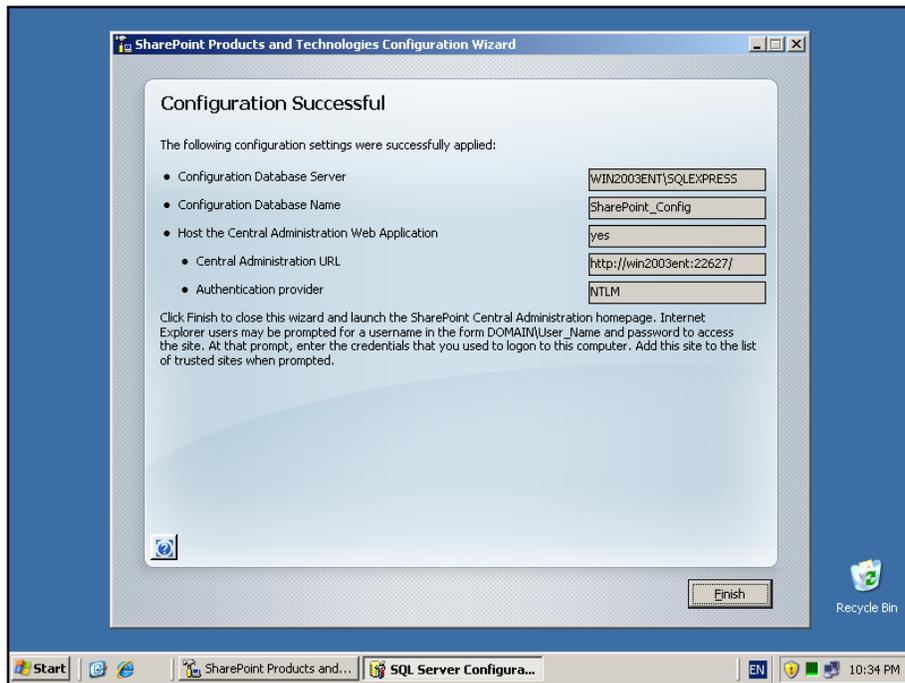


You are now finally presented with a summary of your installation choices. After reviewing these press the **Next** button to continue.

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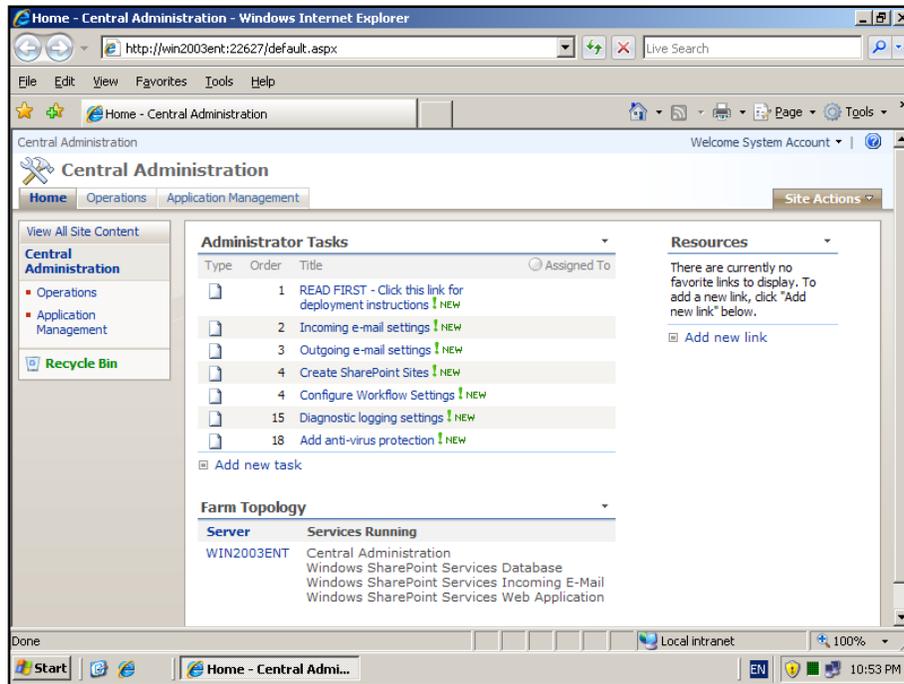


The configuration wizard will now run through nine or so stages to complete the configuration on the server. During this process there is no option to enter further information and the only option available is to press the **Cancel** button to halt the process.



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Once the wizard has completed all the steps you will see the above summary screen indicating that the configuration was successful. Press the **Finish** button to continue.

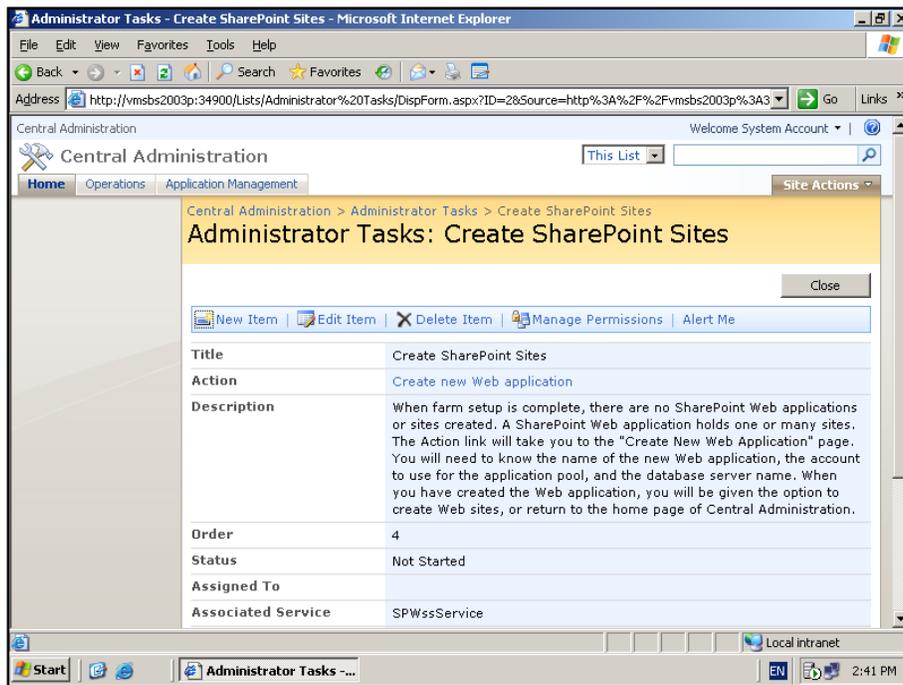


Since the *Advanced Installation* option was selected at the beginning of this process you now need to configure a WSS v3 web site and site collection. This is done through the *SharePoint V3 Central Administration* which is automatically displayed upon the completion of the configuration wizard.

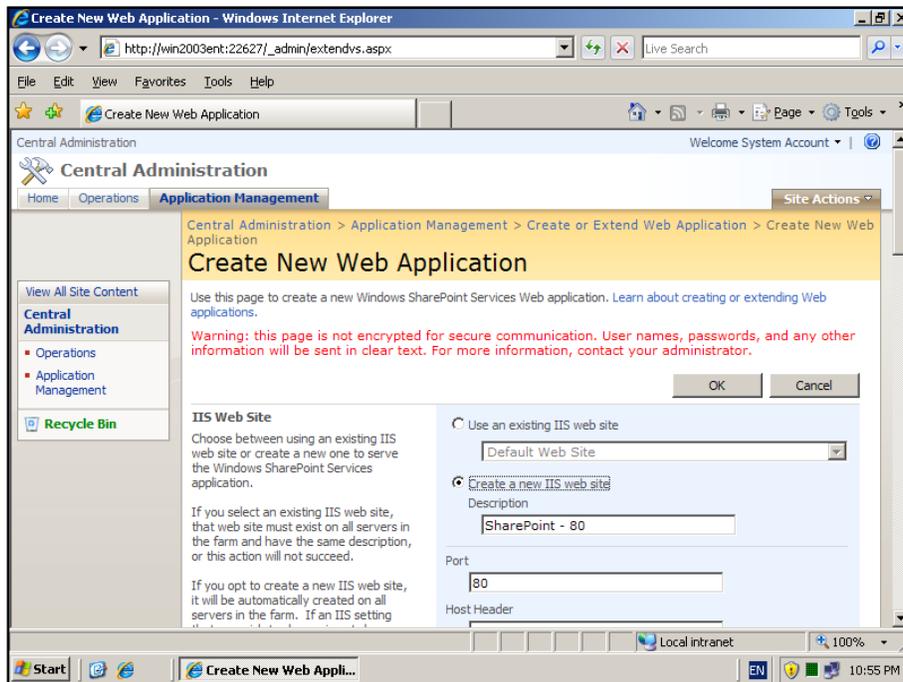
For more detailed information about configuring a WSS v3 website and site collection see **Chapter 5 – SharePoint Central Administration**. The following steps will take you through the basic steps of getting a WSS v3 site operational.

Under *Administrator tasks* select the option – **Create SharePoint sites**. You will then be taken to a summary page detailing the steps.

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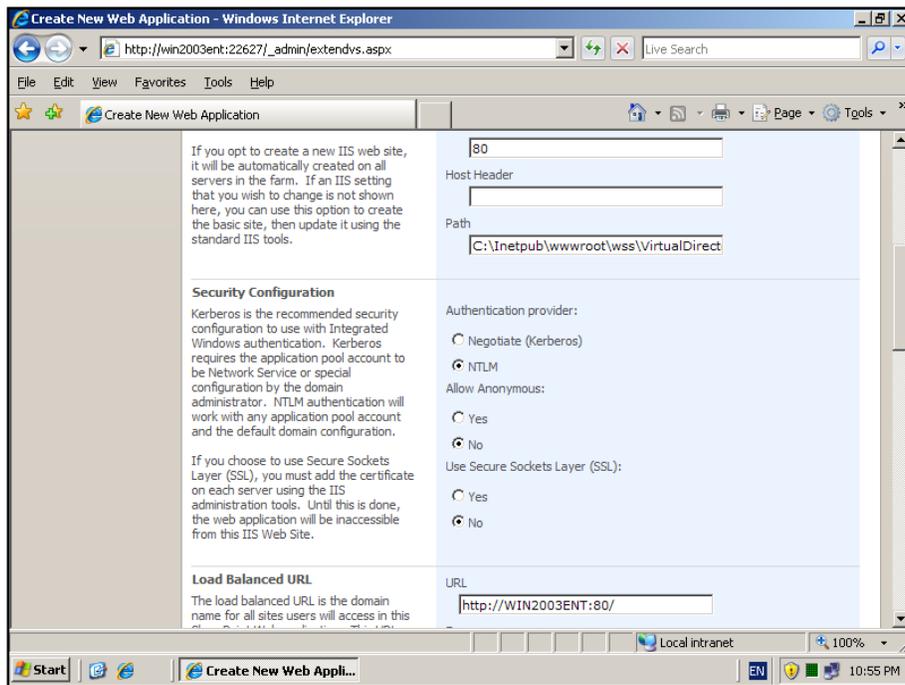


Click on the link there to **Create New Web Application** to proceed.

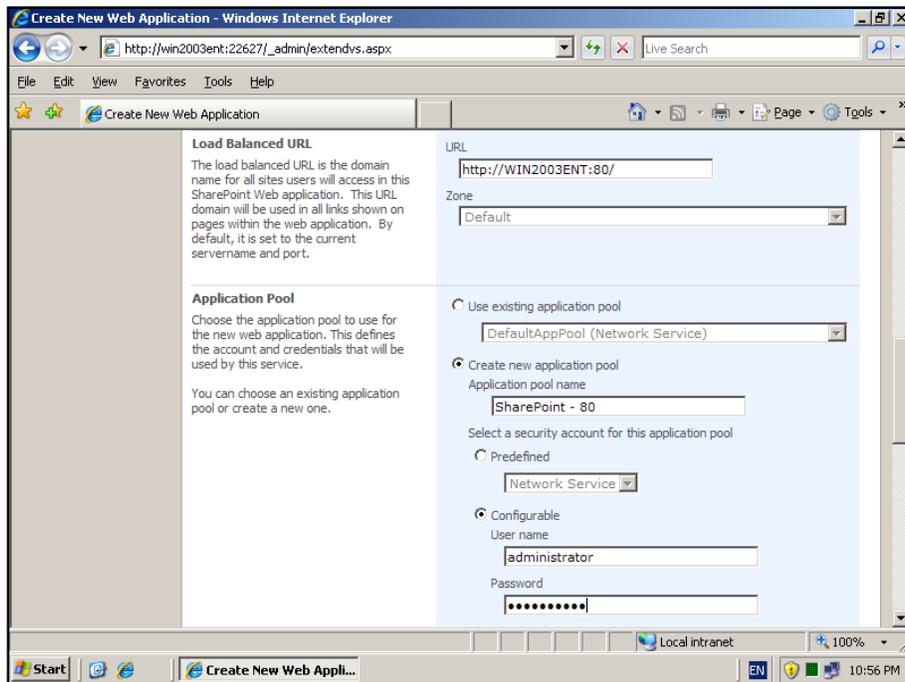


By default the *Create New Web Application* will configure a web site on the default web site (i.e. port 80). Scroll down for more options.

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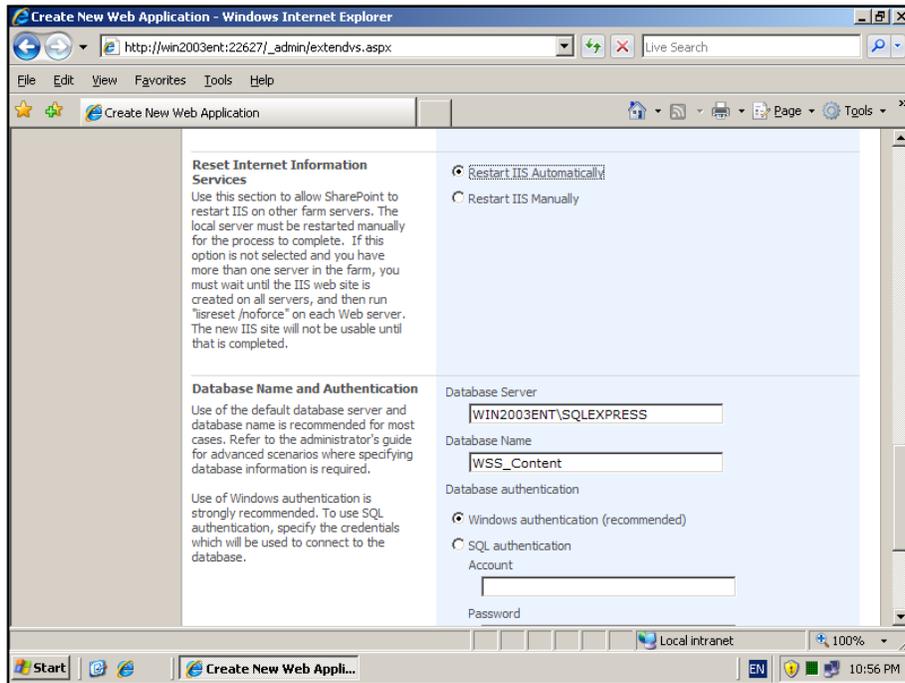


Most of the default options are suitable so leave them unchanged.



You will need to enter the login details of the security account for a new application pool for the web site. You can also choose to use the standard *Network Service* if desired. For improved security it is recommended that you choose a suitable account.

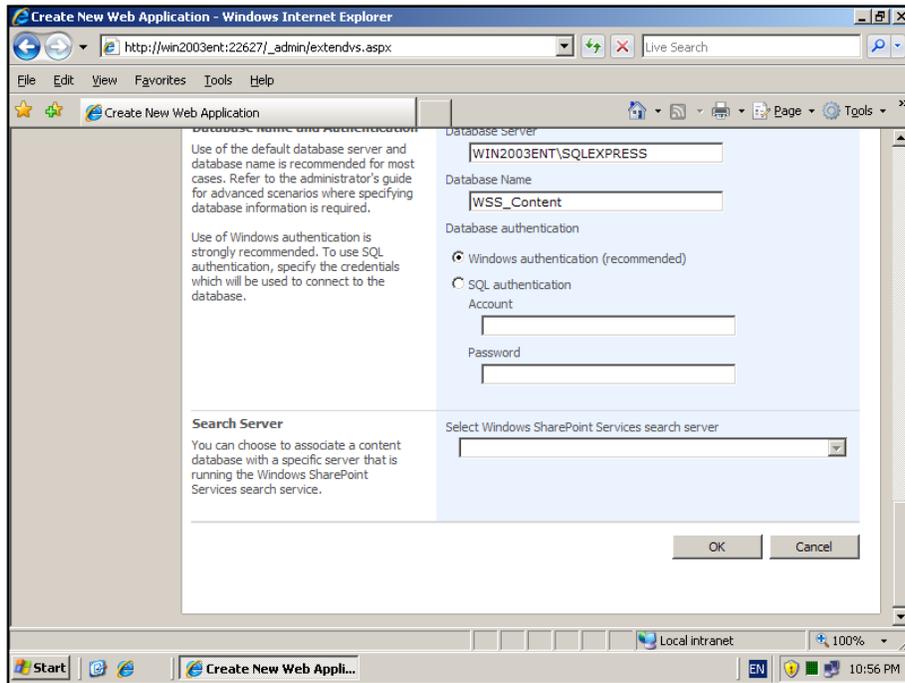
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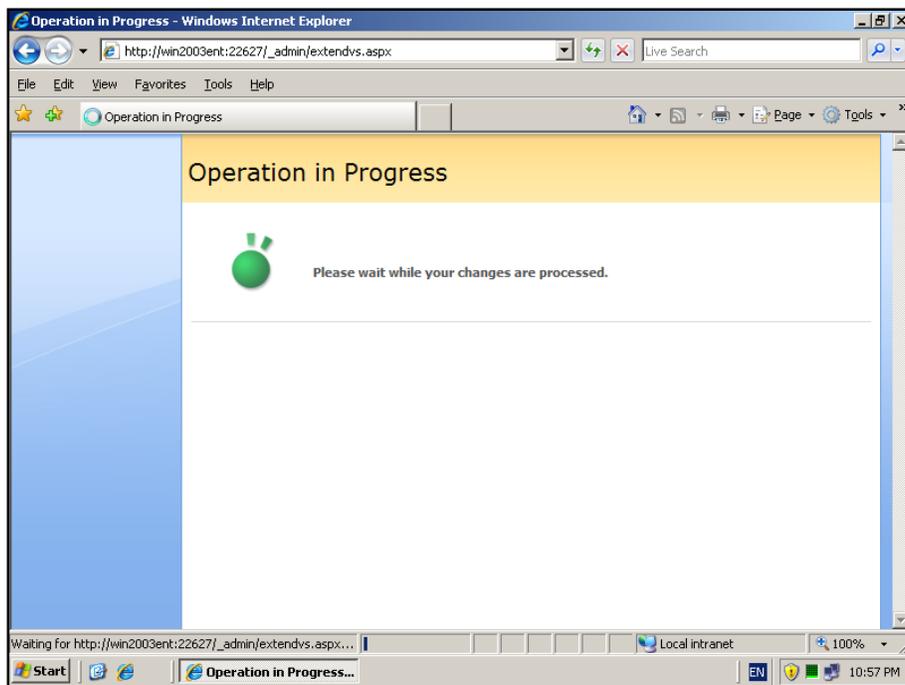
The database server and content database name will also be entered by default. The name for the database by default is *WSS_Content*.

It is also recommended that you select the option to **Restart IIS Automatically**. Continue to scroll down the screen for more options.

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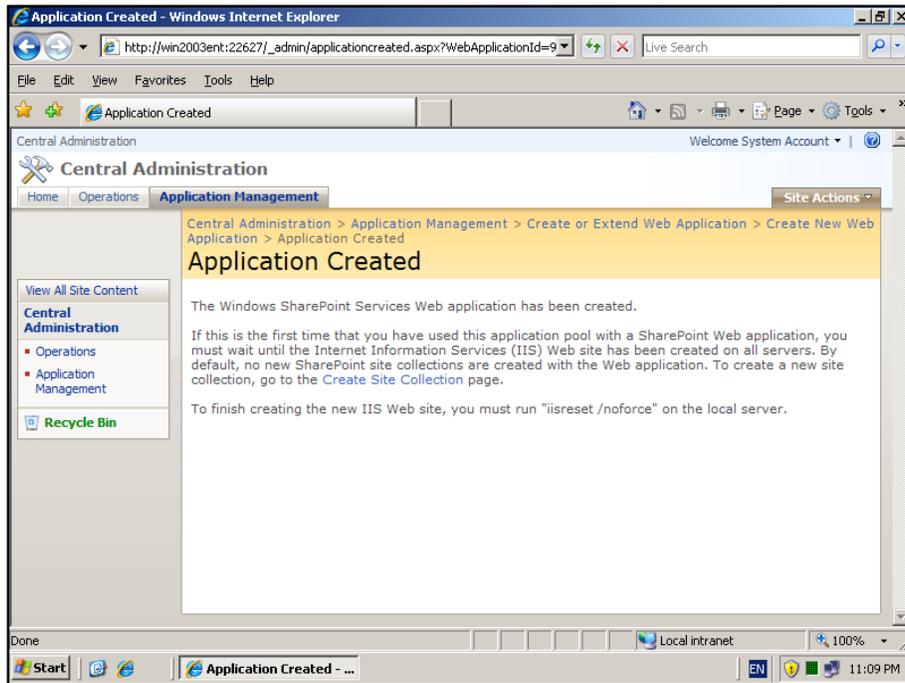


After completing all the details on this page press the **OK** button to configure the web application.

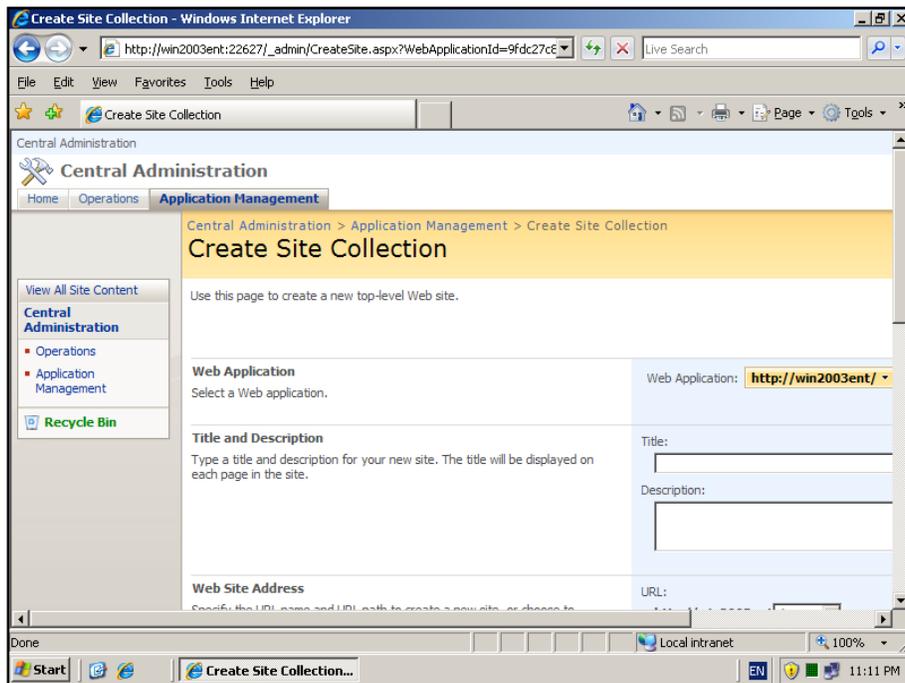


You should now see the *Operation in Progress* page. This will take a few minutes to complete.

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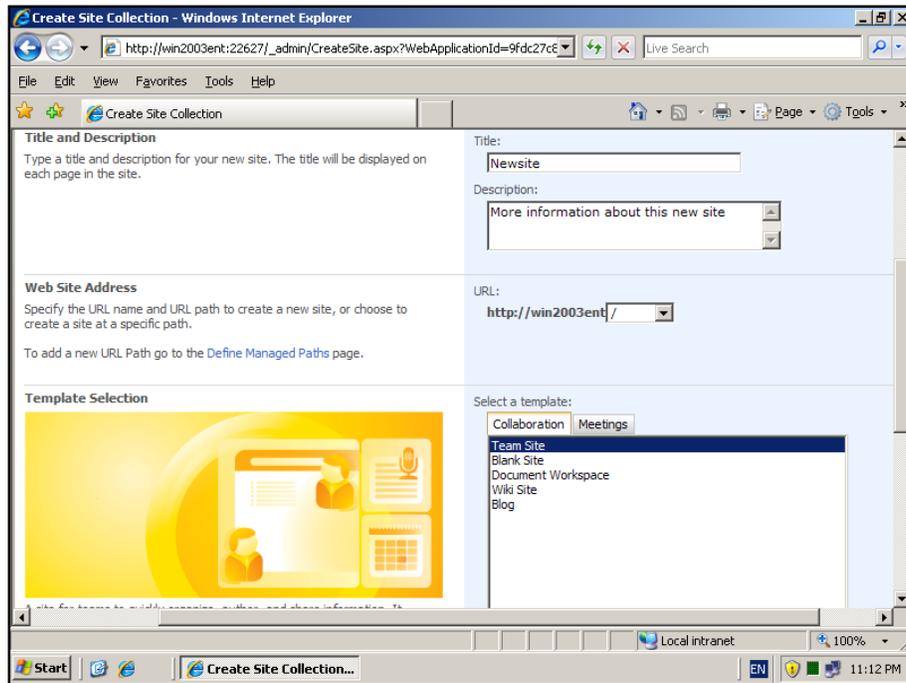


Once complete you should see the above screen indicating that the application has been created. You now need to select the link **Create Site Collection** to create a WSS v3 site. Click on this to continue the configuration process.



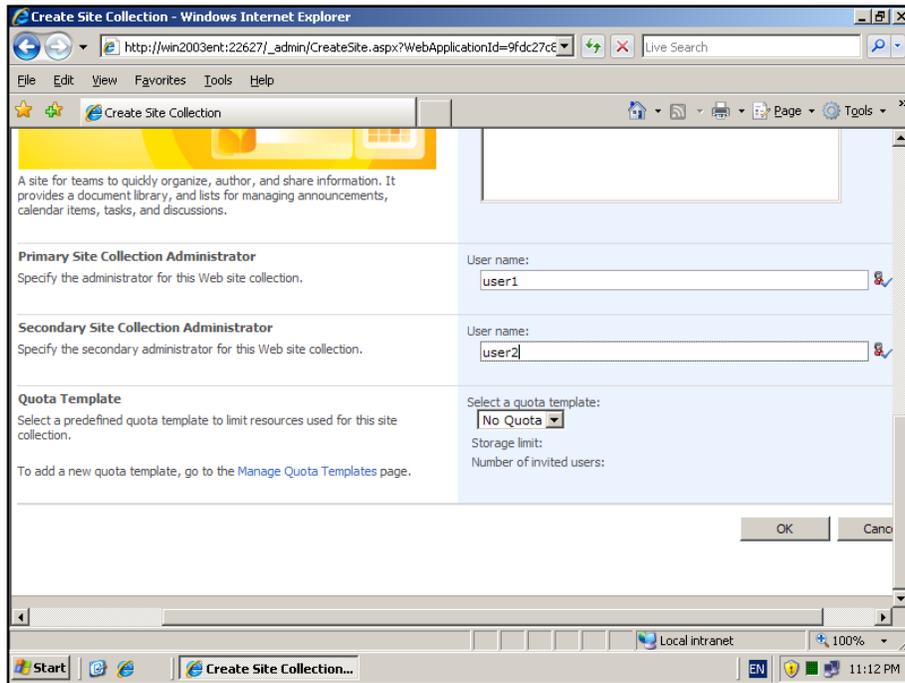
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Once you have clicked the **Create Site Collection** link you will see the above page asking you to complete the new site details. Select a site name and description and scroll down the screen.



Now select the template you wish to use when creating your WSS v3 site. More information about the options available here can be found in **Chapter 5 – Central Administration** and **Chapter 10 - Templates**.

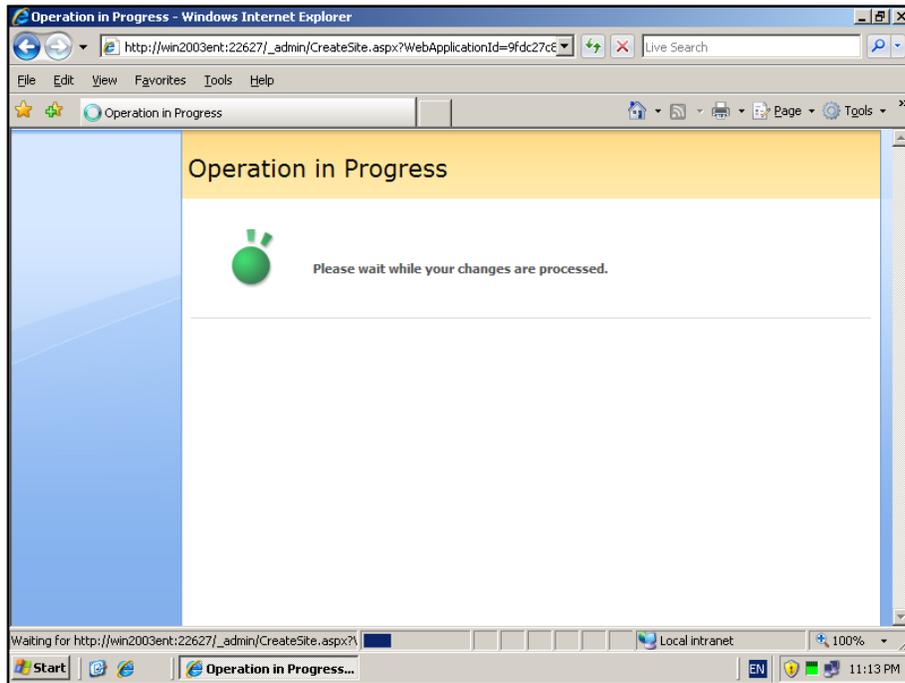
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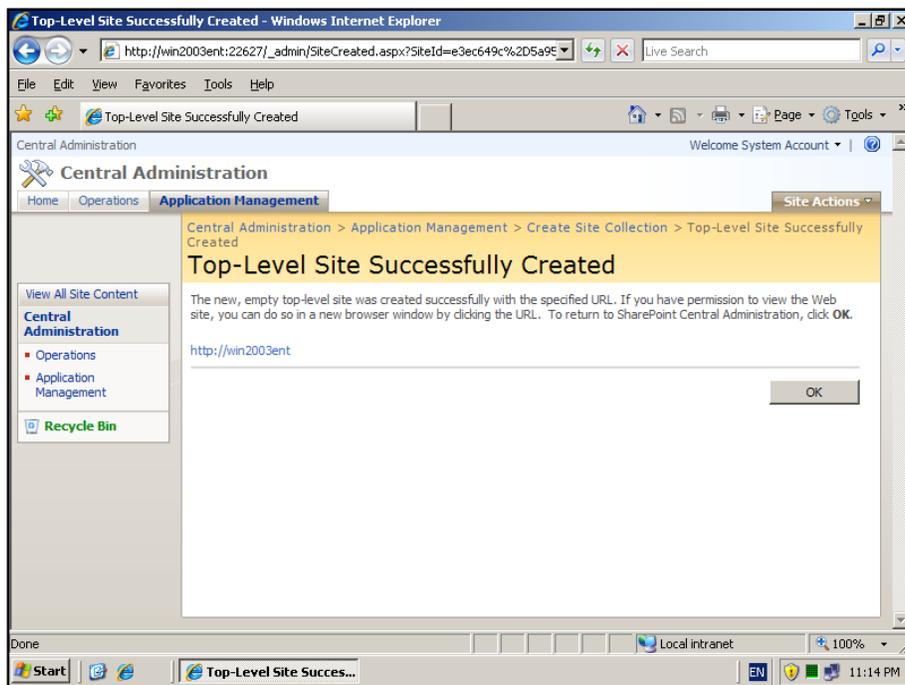
You will also need to enter a valid user in the field *Primary Site Collection Administrator*. This user has administrative rights over the WSS v3 site you are about to create. Note, that this user does not have to be the domain or server administrator, it can be any valid network user. You are also able to enter another user as the secondary site collection administrator as a backup.

Press the **OK** button to create the site.

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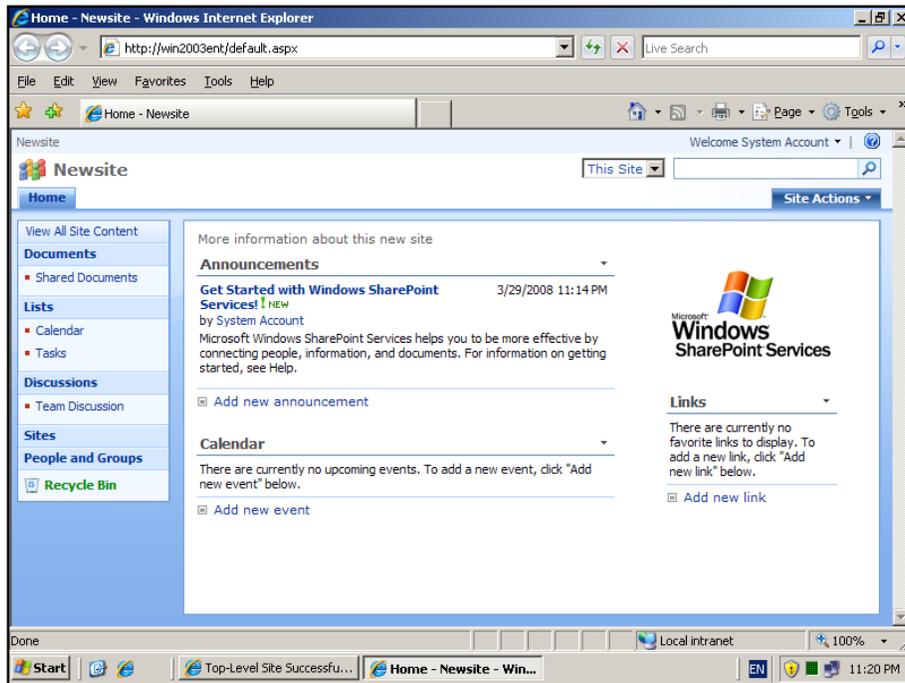


You should now see the *Operation in Progress* page. This will take a few minutes to complete.



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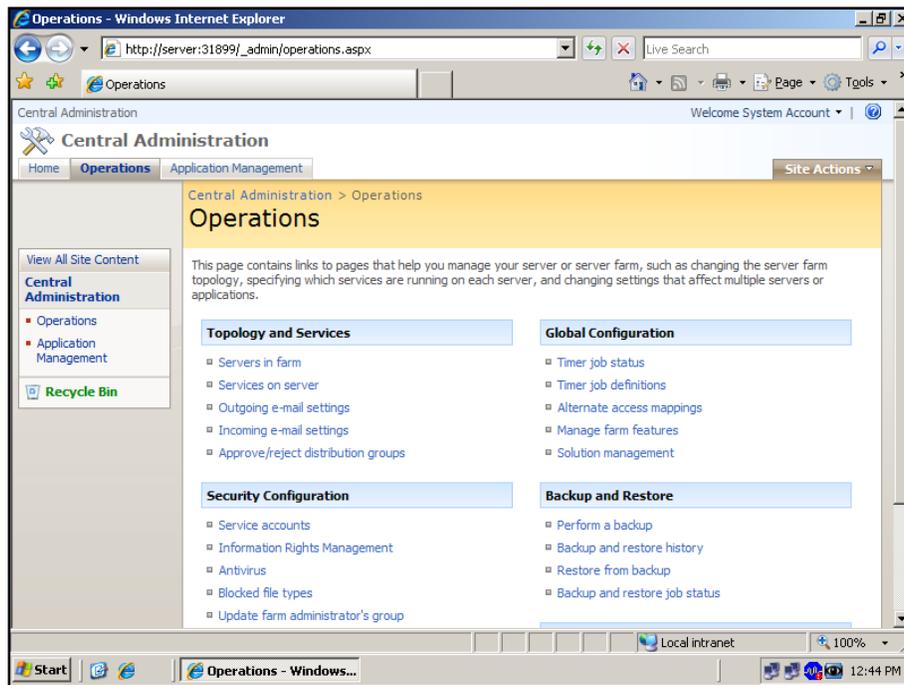
At completion, you now see a page similar to that shown above indicating that a top level site has been successfully created. Select the link below this to open the new WSS v3 site in a new browser page.



If everything has completed successfully you should now see the familiar WSS v3 team web site displayed in your browser. You will note that this site is now the default web site for that server (i.e. operates on port 80).

The final step is to ensure that the site has been enabled for searching. Because this server was installed using the advanced method and as a web front end search services will probably not be configured.

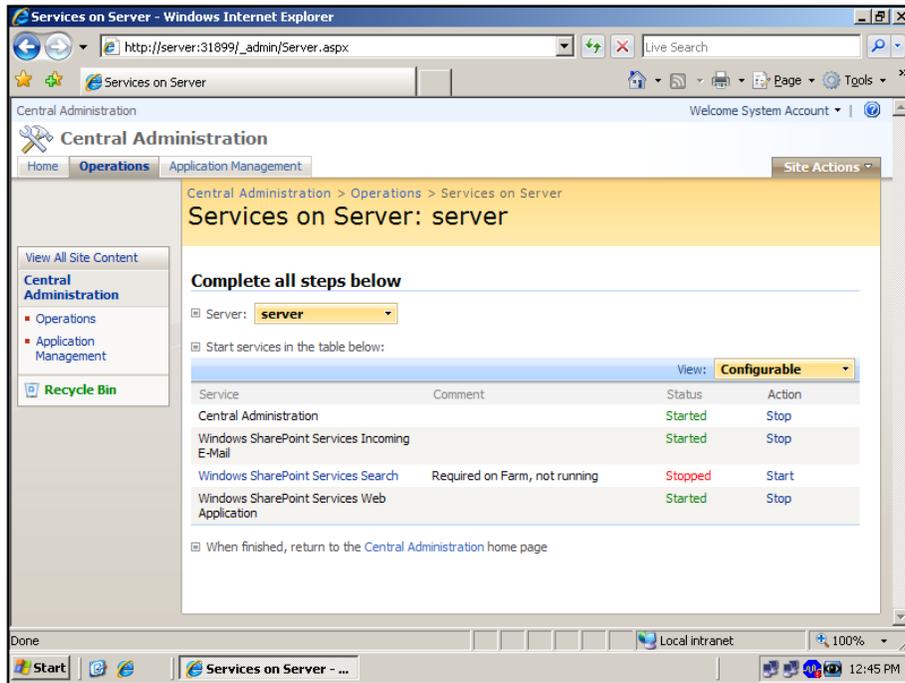
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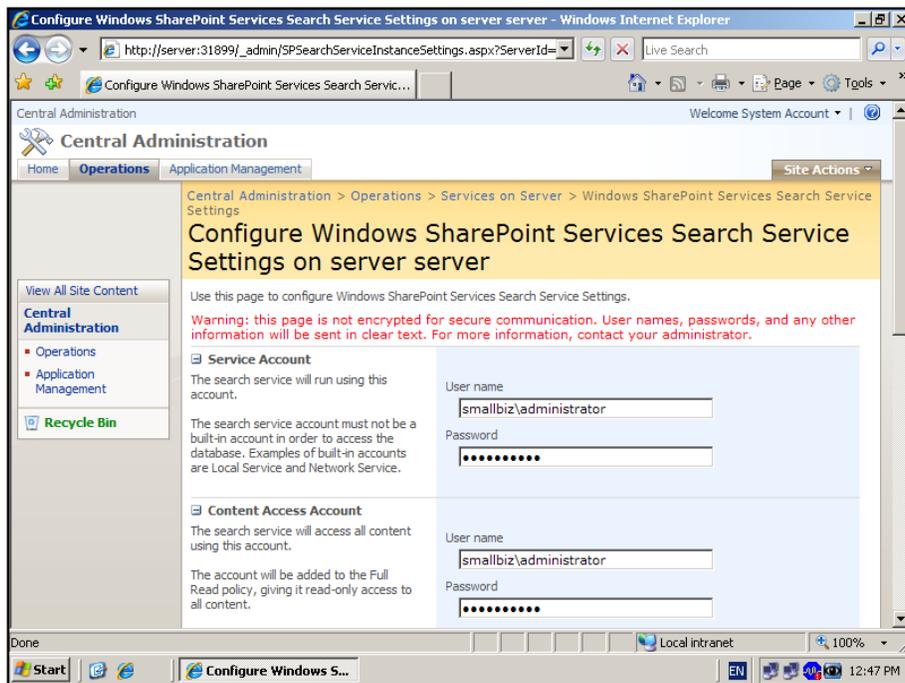
Run the SharePoint 3.0 Central Administration on the server by logging into the server as an administrator and then select **Start | Administrative Tools | SharePoint 3.0 Central Administration**.

Select the *Operations* tab and then **Servers in farm** from the *Technology and Services* group.

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This option will display all the running WSS v3 services. As you can see from the above screen the *Windows SharePoint Services Search* is stopped. Click on the **Start** link to configure this.

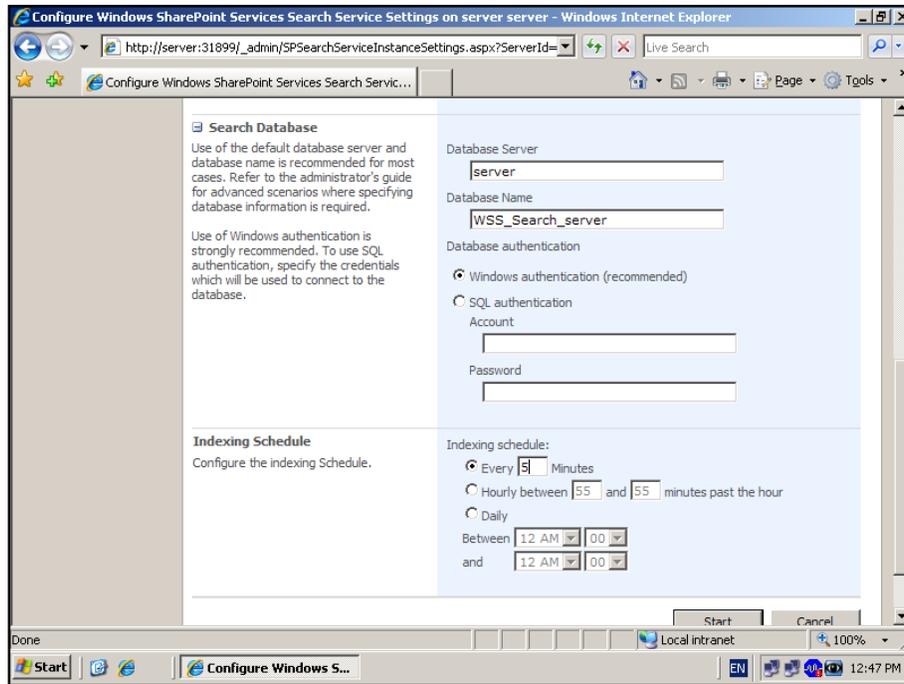


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Enter in the user details for the service account that will run the search service as well as the account that will access the content during indexing. Note, that this account will be given full read-only access to all content.

It is recommended that you enter these accounts as `<domain>\<user>`.

To continue configuring, scroll down the screen.

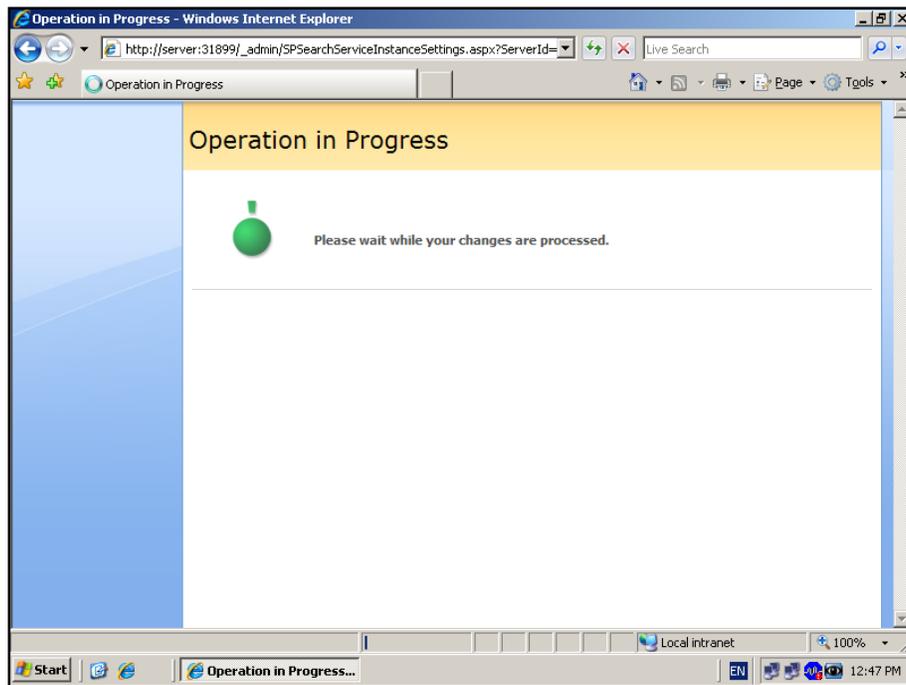


You can now enter the search database server and name. Normally it is recommended that you don't change these from their default settings. It is also recommended that you use *Windows Authentication*.

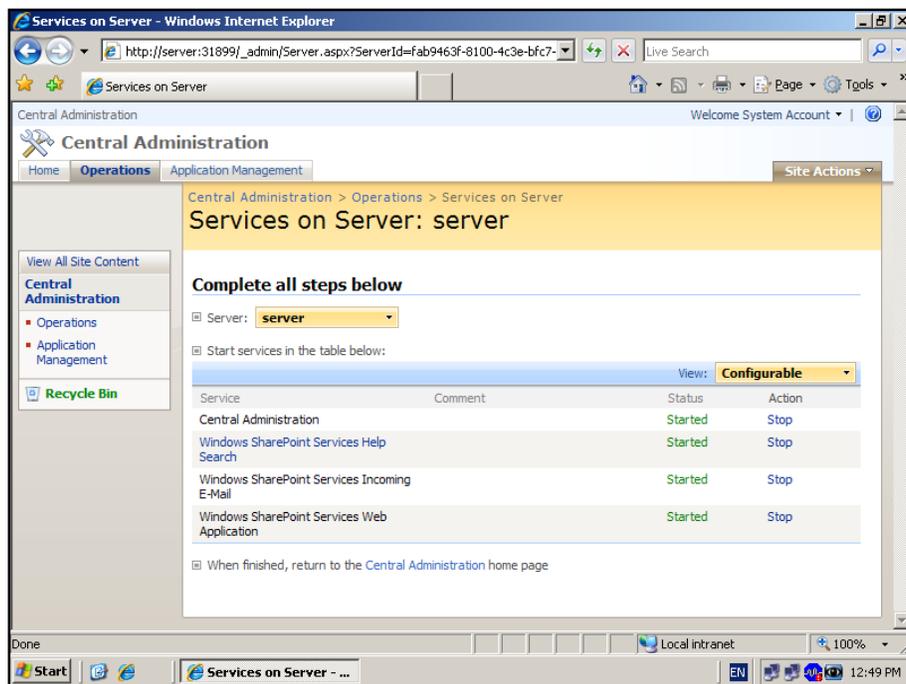
Lastly, select how often you wish indexing to take place. Remember that frequent indexing will impact on the performance of your server but will ensure changed content is quickly searchable. You will not be able to see any search results until an indexing crawl of your WSS v3 content has completed.

Press the **Start** button to save your configuration.

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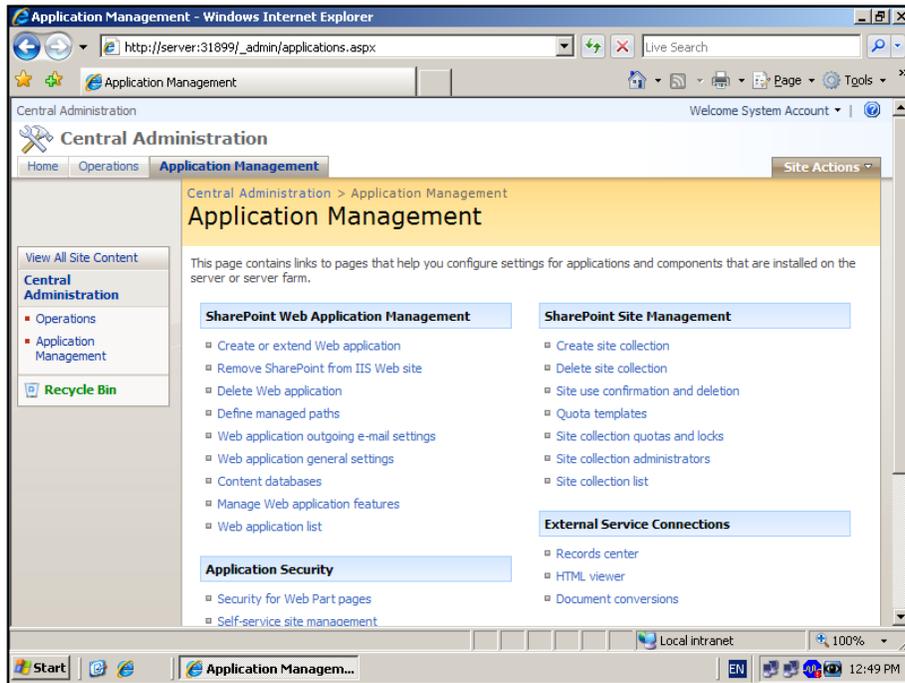


The system will now configure your installation.

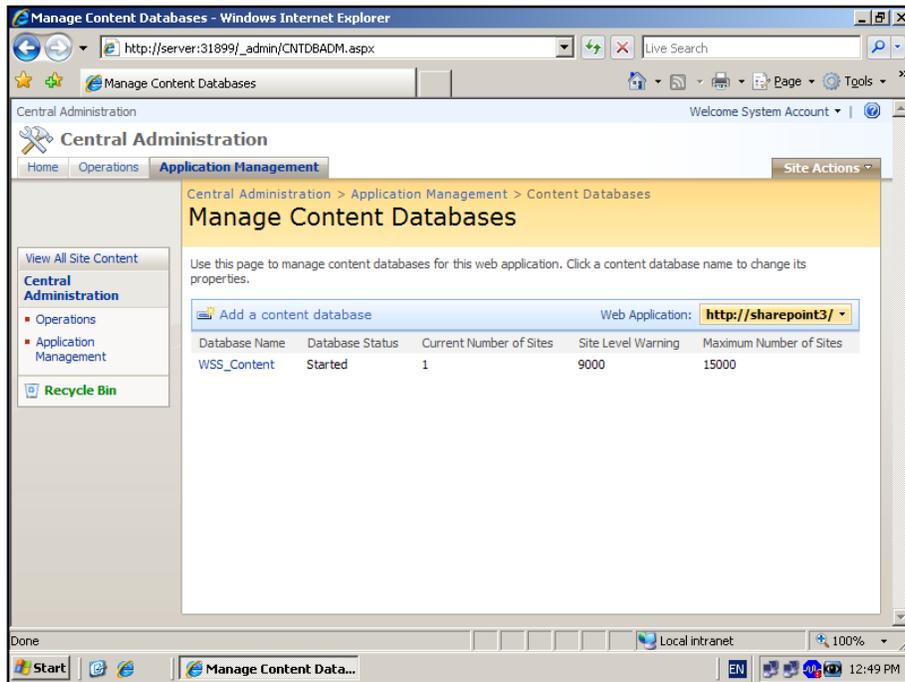


After this you should be returned to the *Services on Server* screen where you should see that all the services are now started.

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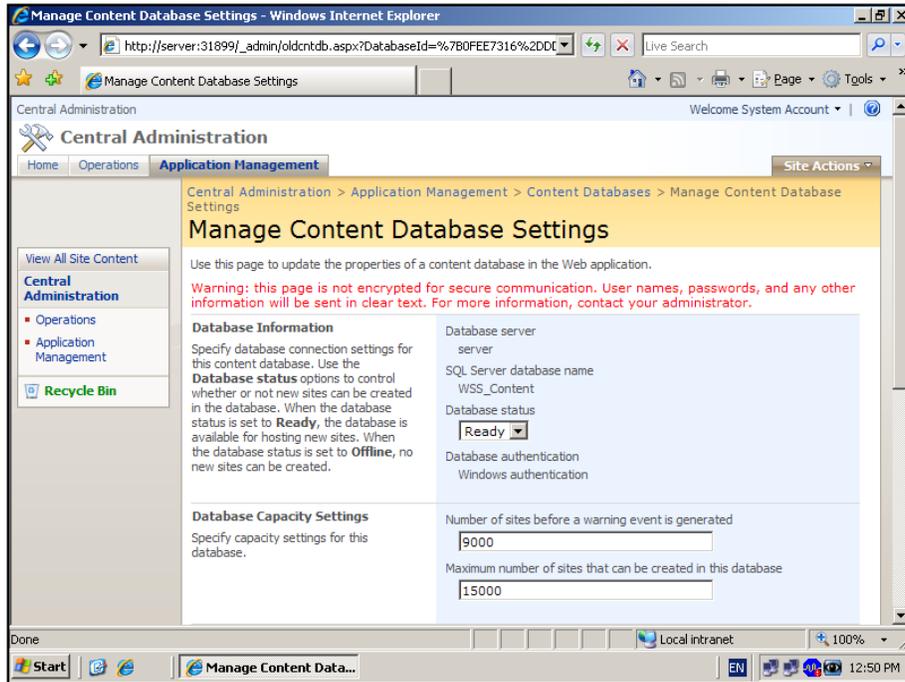


Now, select the *Application Management* tab. Then select **Content databases** from under the *SharePoint Web Application Management* Group.

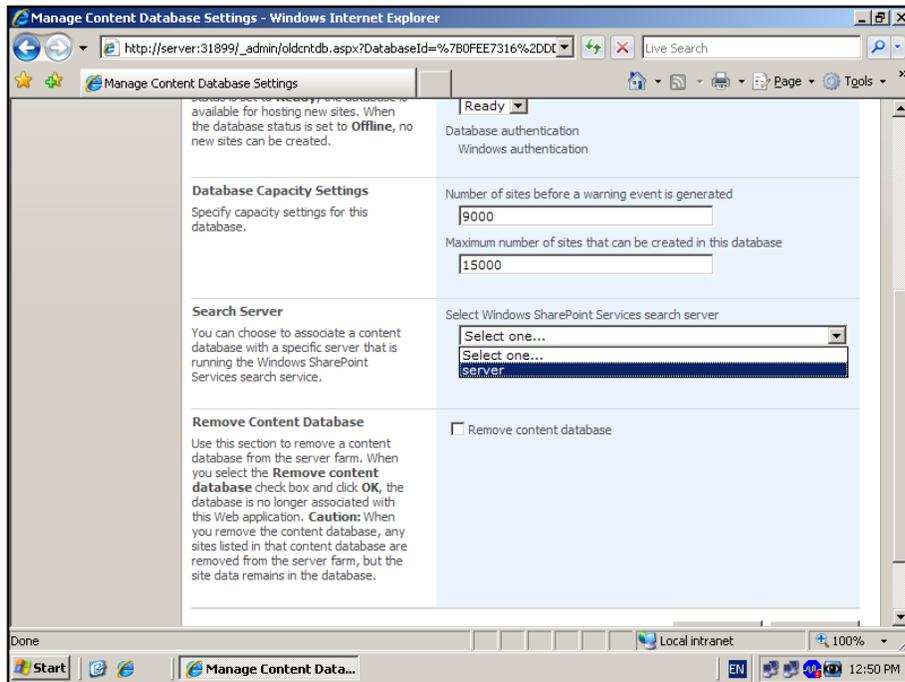


You should now see your WSS v3 content database (in this case WSS_Content, which is the default). Click on the name of your content database to configure it.

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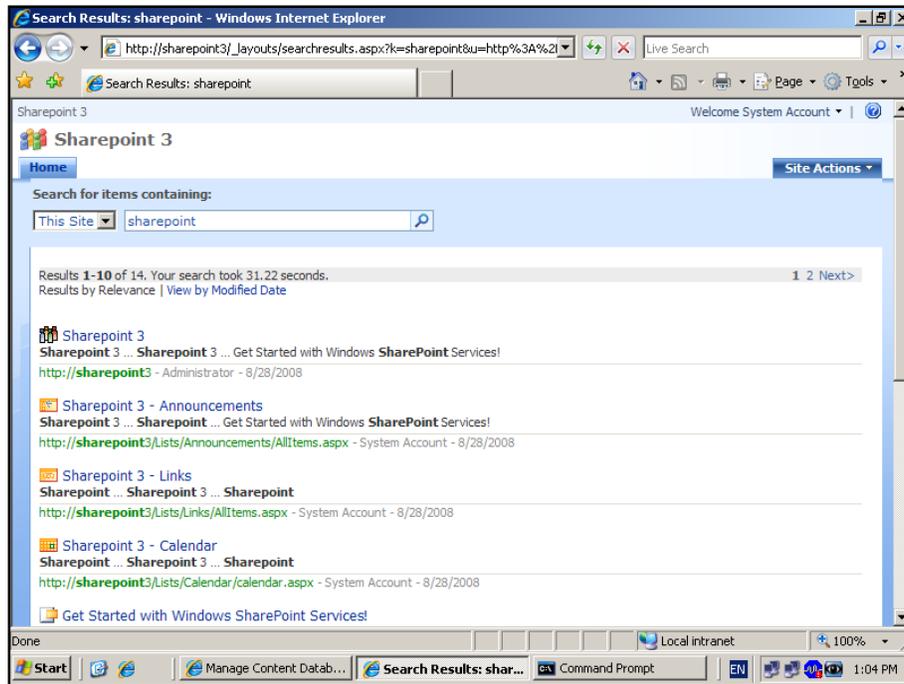
Scroll down the screen.



You should now see a section *Search Server*. Pull down the options box and select your server (in this case *server*).

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Press the **OK** button at the bottom of the screen to save the configuration.

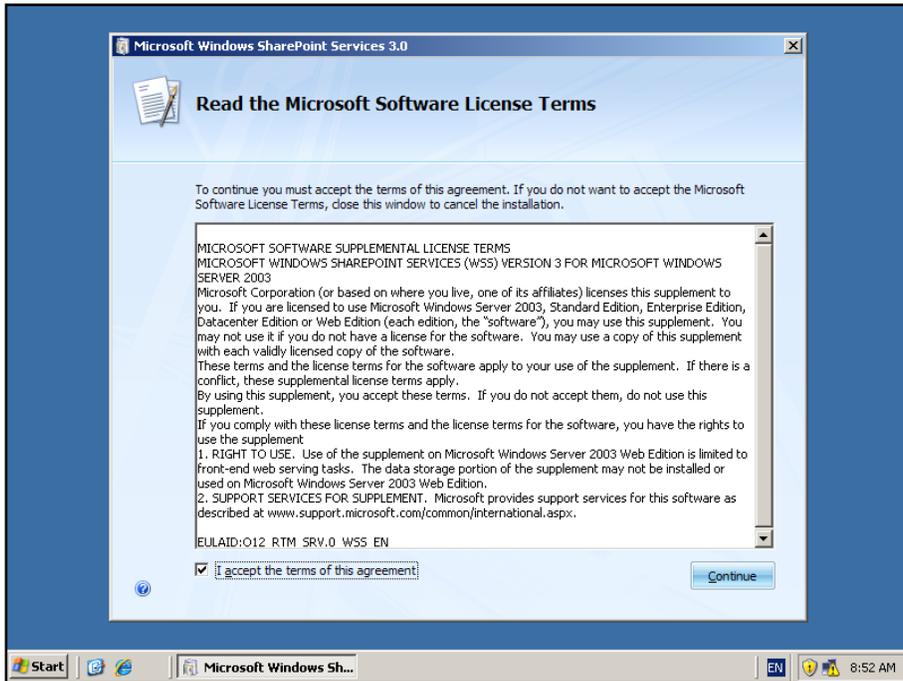
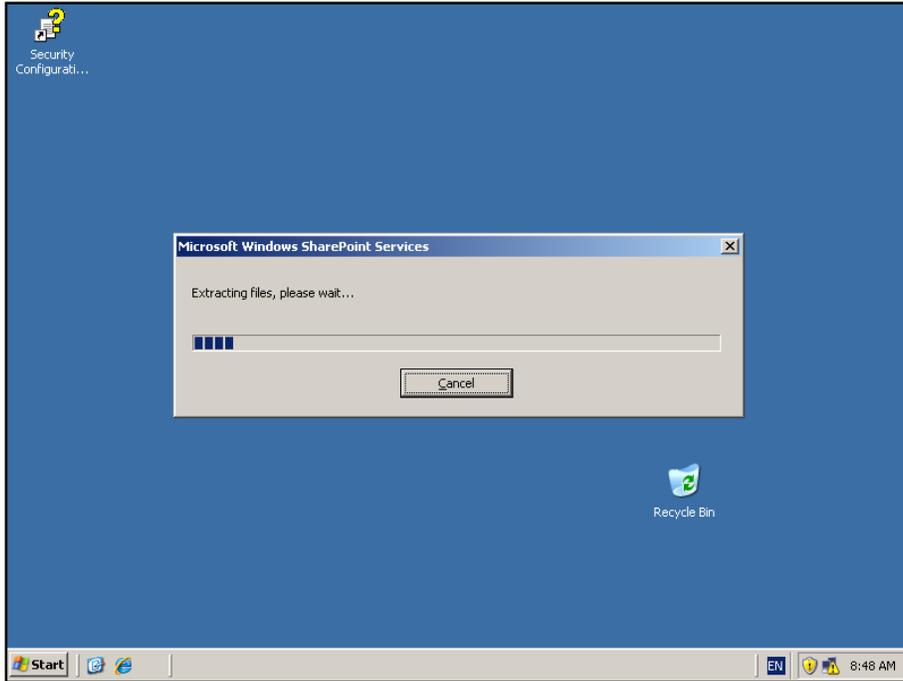


If you now return to your WSS v3 site and enter in a search request you should see the results displayed. Remember that search results will not display until an index crawl has completed.

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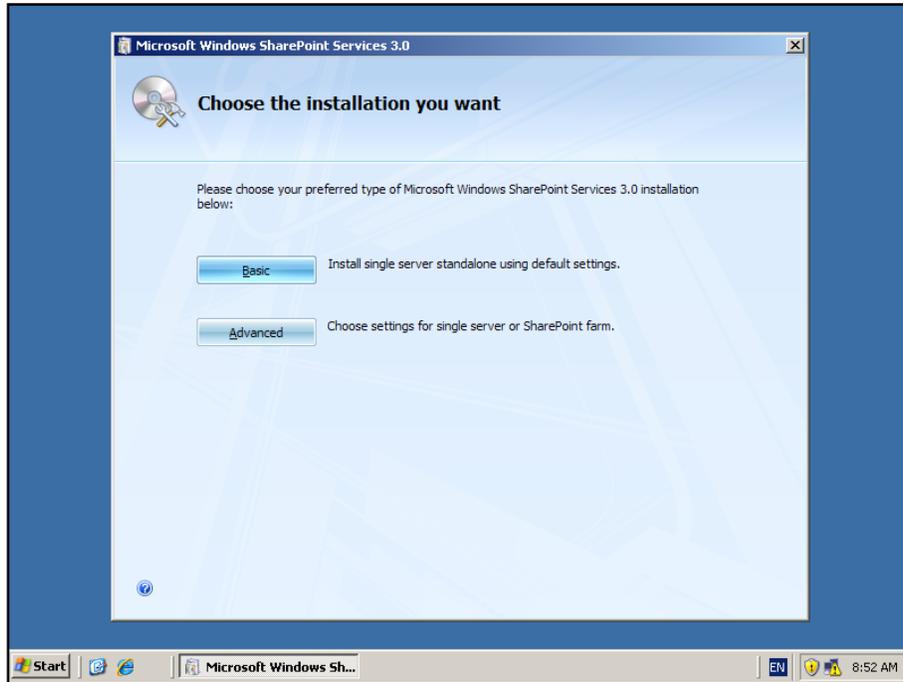
Default installation

The default installation commences in the same manner with the extraction of the files from sharepoint.exe.



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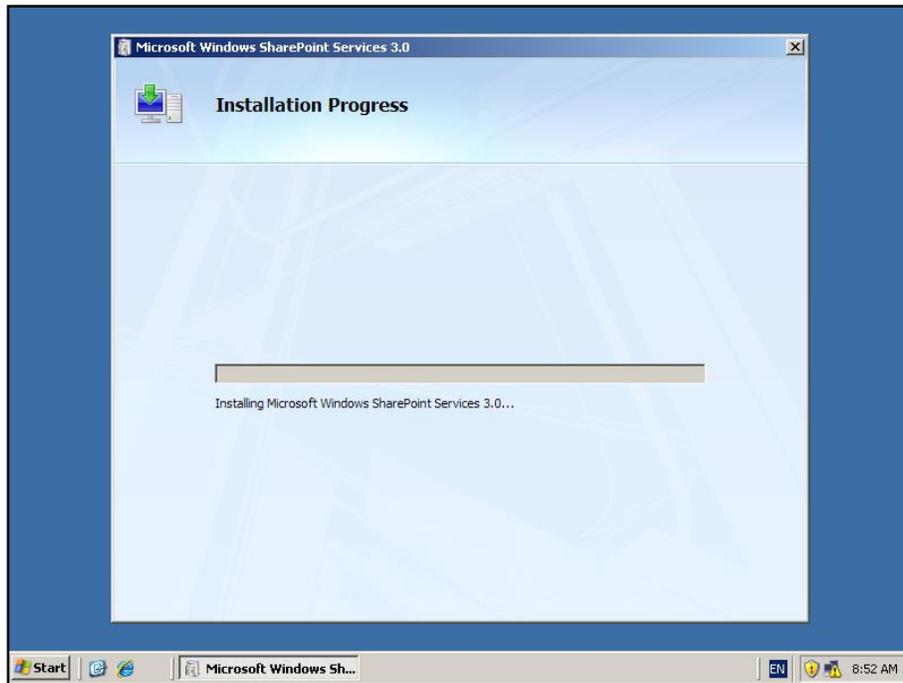
You then need to agree to the terms of the agreement by clicking in the check box and pressing the **Continue** button.



To complete a default WSS v3 installation click the **Basic** button but remember the following items that will automatically be configured:

- a. Install WSS v3 programs to *c:\program files\common files\Microsoft shared\web server extensions\12\data*
- b. Install Microsoft SQL Server 2005 Express Embedded Edition (SSEE) as the WSS v3 storage option and install this automatically to *c:\windows\sysmsi\ssee\mssql.2005\mssql\data*. This cannot be upgraded if required in the future.
- c. Configure a WSS v3 web site on port 80.
- d. Configure a WSS v3 team site collection.
- e. A single server, non-expandable installation.

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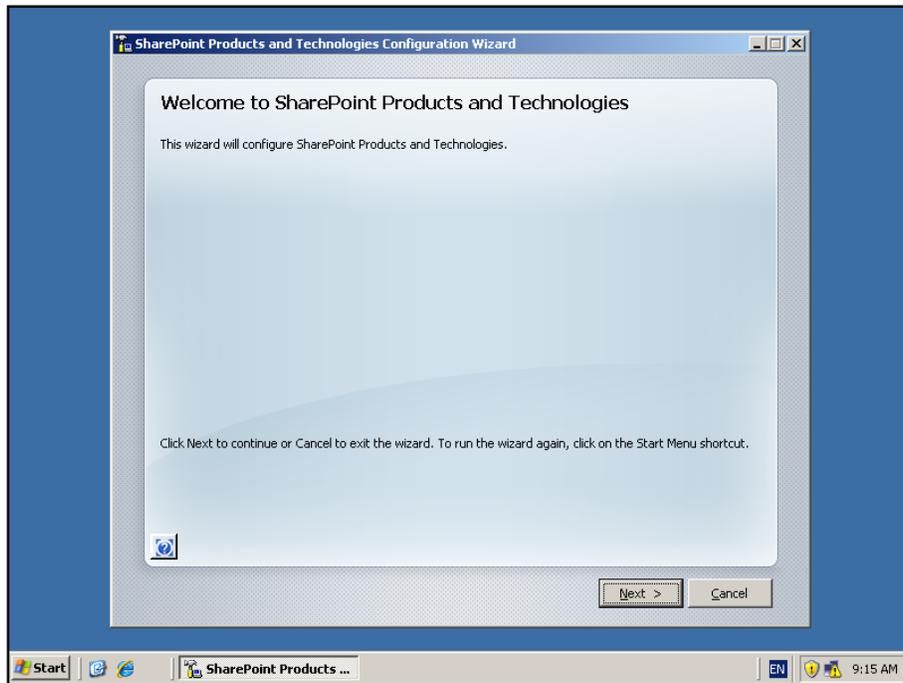


The installation will now commence. Note, that no further input is available until this process is complete.



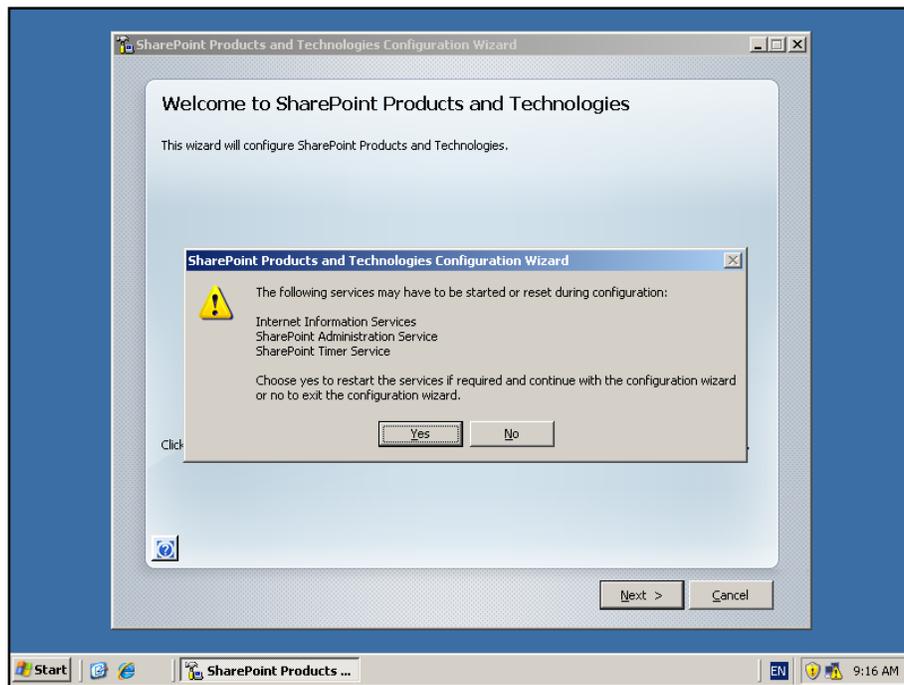
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Once the installation is complete you will see the above window as mentioned before. Leave the **Run the SharePoint Products and Technologies Configuration Wizard now** option checked and press the **Close** button.



Select **Next** to continue. Note, unlike the *Advanced Installation*, completed earlier, you are not reminded about the name of a database server or username and password for the database access account since these choices have already been made by the installation program under the *Default Installation* option selected earlier.

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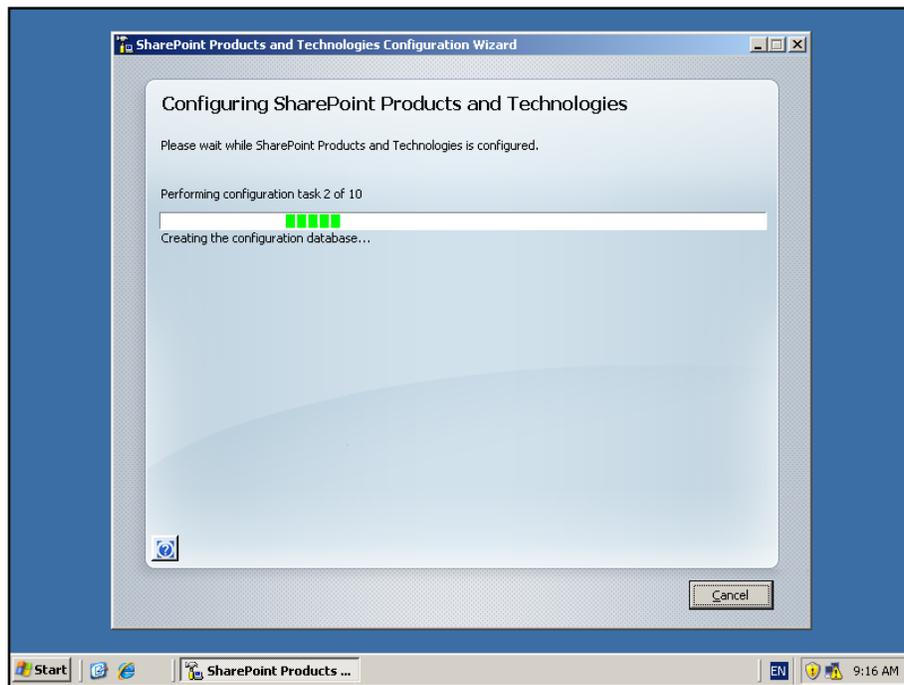
You will again be prompted to the fact that the following services will be started or restarted:

- Internet Information Service (IIS)
- SharePoint Administration Service
- SharePoint Timer Service

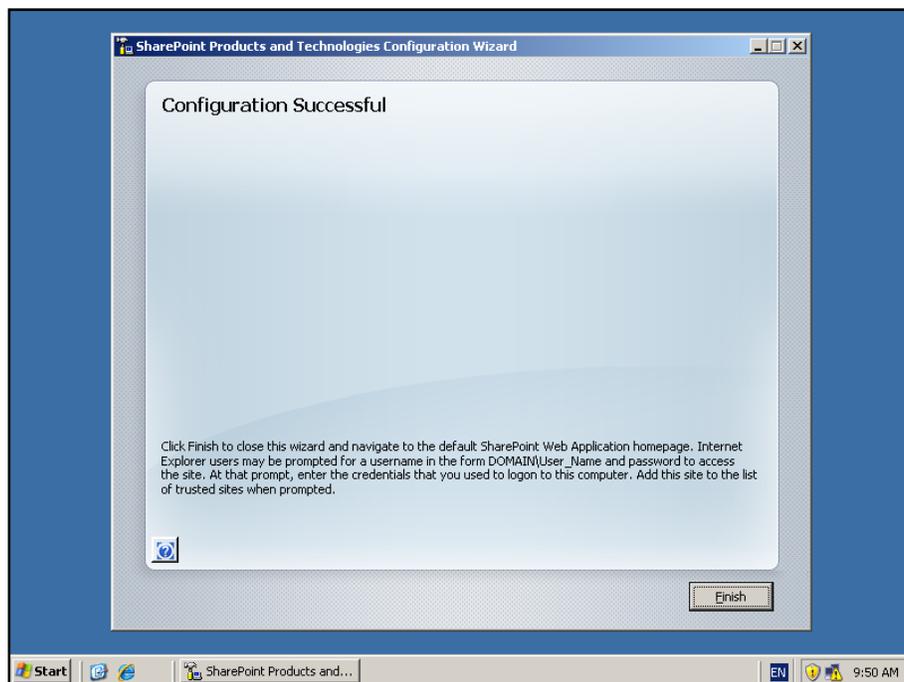
You need to be aware that this operation may have an impact on other applications that use these services which could impact network users interacting with them.

If you wish to proceed with the installation press the **Yes** button.

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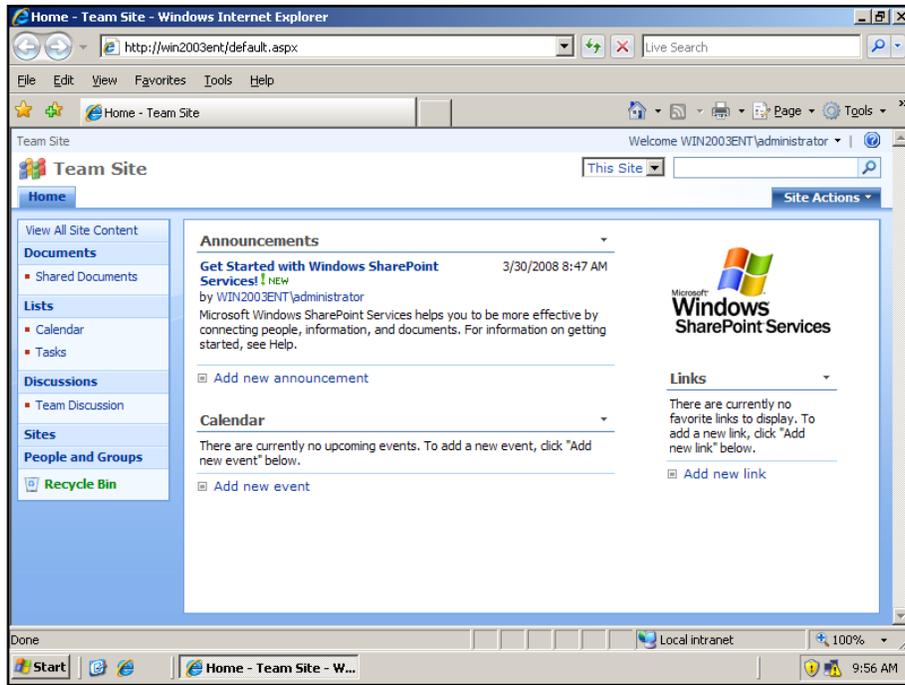


Unlike the *Advanced installation* no further configuration options are provided and the configuration wizard will now run through ten or so stages to complete the configuration on the server. During this process there is no option to enter further information and the only option available is to press the **Cancel** button to halt the process.



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When the wizard completes you should see a Completion Successful window like that shown above. Press the **Finish** button to continue.



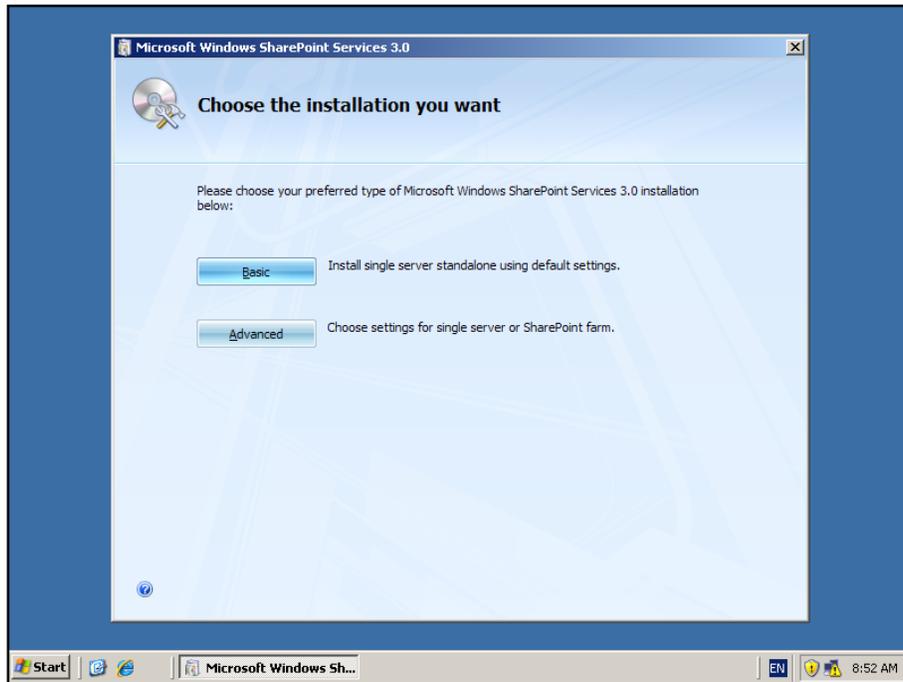
Your new WSS v3 web site should automatically be brought up in a browser window. Unlike the *Advanced Installation*, all the SharePoint Central Administration set up has been completed automatically. Your WSS v3 site is available on the default web site for this server (i.e. on port 80).

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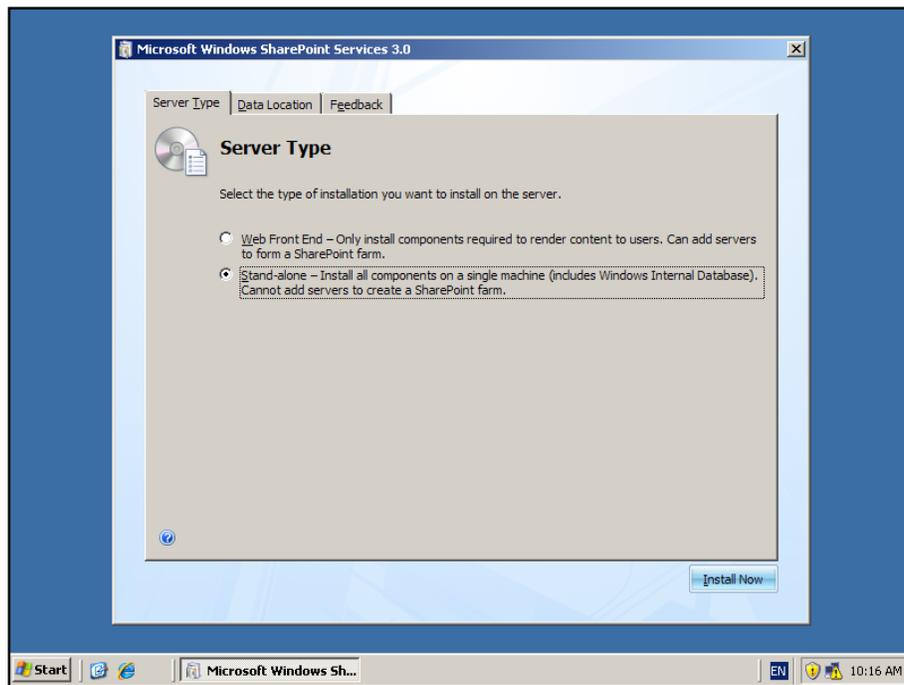
Stand Alone installation

The final installation option not already covered is the *Stand Alone* option. This option is very much like the *Default Installation* mentioned previously.

You once again start the WSS v3 installation as normal and when presented with the installation type select **Advanced**.



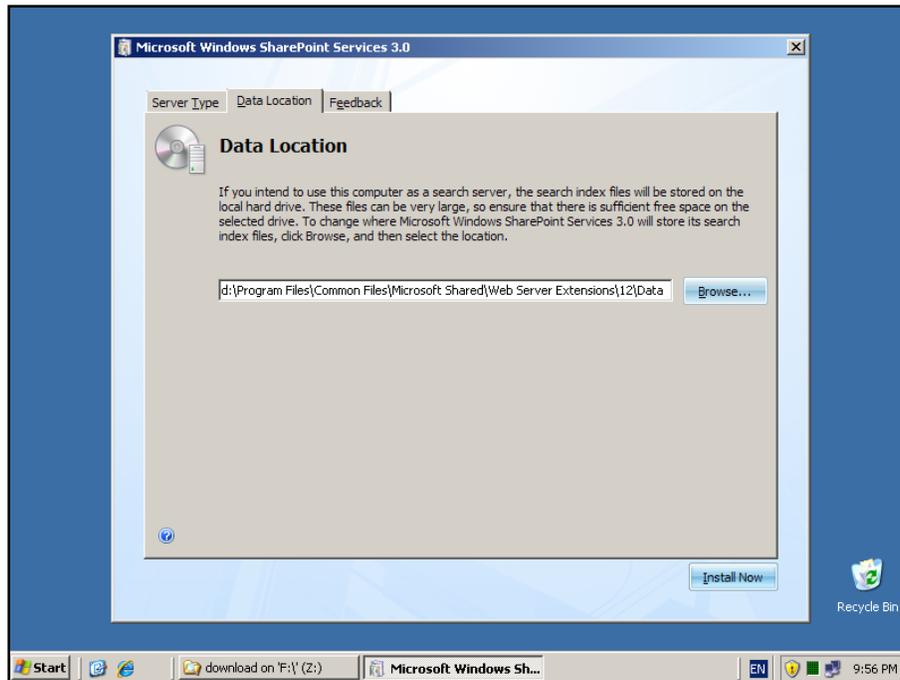
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On the Server Types page select the *Stand-alone* option. Remember that by selecting this option:

- a. Install Microsoft SQL Server 2005 Express Embedded Edition (SSEE) as the WSS v3 storage option and install this automatically to `c:\windows\sysmsi\ssee\mssql.2005\mssql\data` which cannot be upgraded in the future if required.
- b. Configure a WSS v3 web site on port 80.
- c. Configure a WSS v3 team site collection.
- d. Unable to create an expandable SharePoint farm.

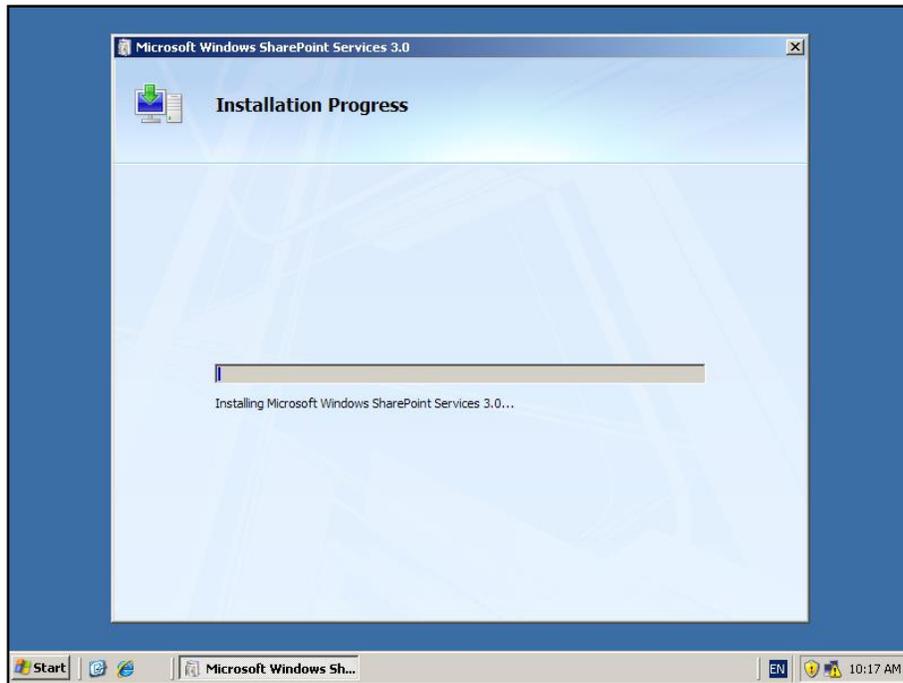
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The Data Location tab allows you to specify where the WSS v3 program files will be stored. By default these will be installed in *c:\program files\common files\Microsoft shared\web server extensions\12\data*. You can specify any location by changing the entry displayed. It is recommended that you only change the drive letter if necessary to ensure compatibility and ease of future support.

Once you have made your selections click the **Install Now** button in the lower right of the window to continue.

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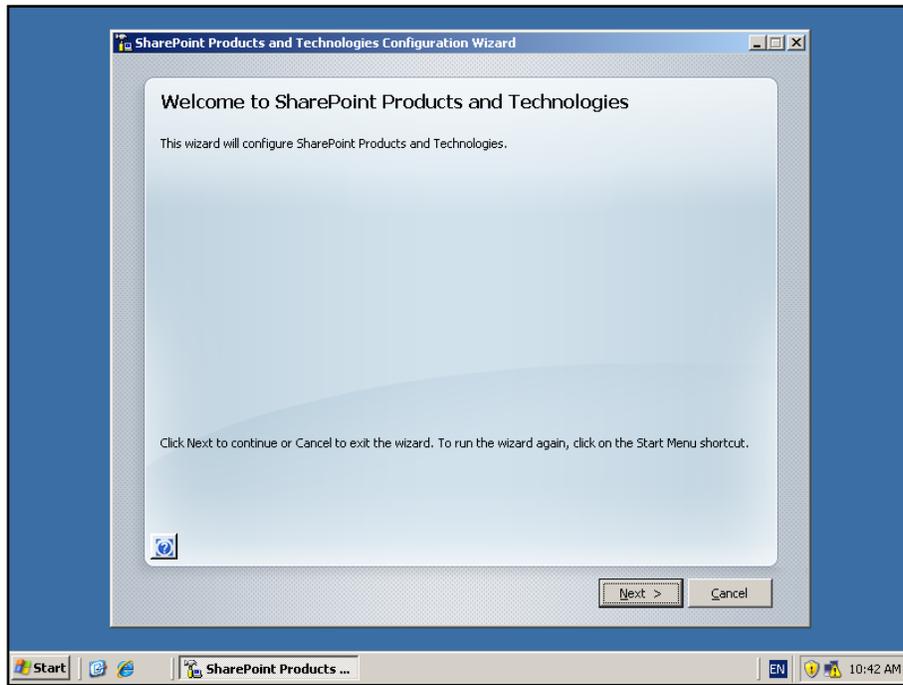


The installation will now commence. Note, that no further input is available until this process is complete.



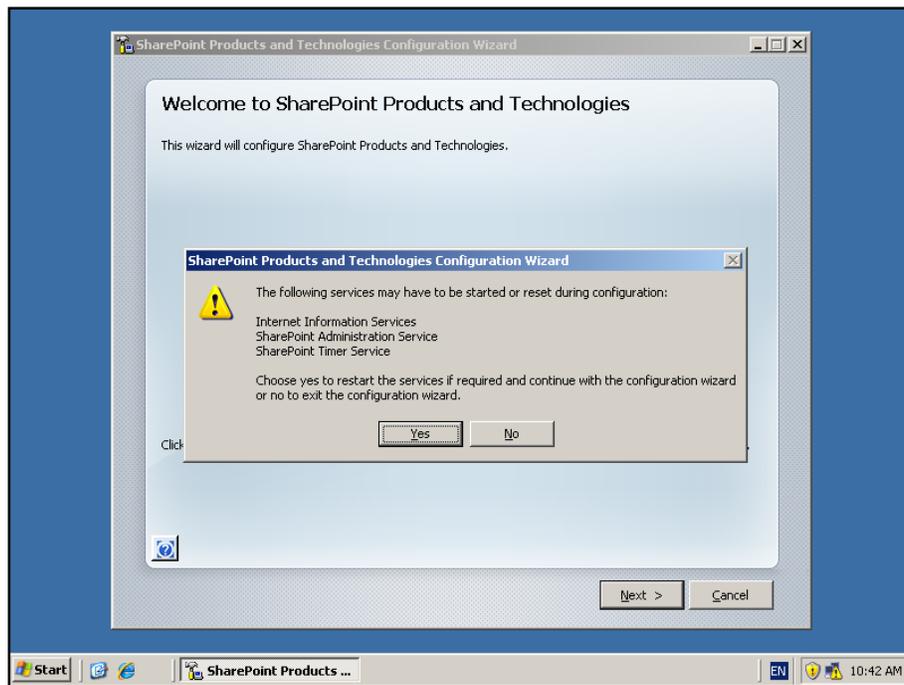
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Once the installation is complete you will see the above window as mentioned before. Leave the *Run the SharePoint Products and Technologies Configuration Wizard now* option checked and press the **Close** button.



Select **Next** to continue. Note, unlike the *Advanced Installation* that was completed earlier you are not reminded about the name of a database server or username and password for the database access account since these choices have already been made by the installation program under the default installation option selected earlier.

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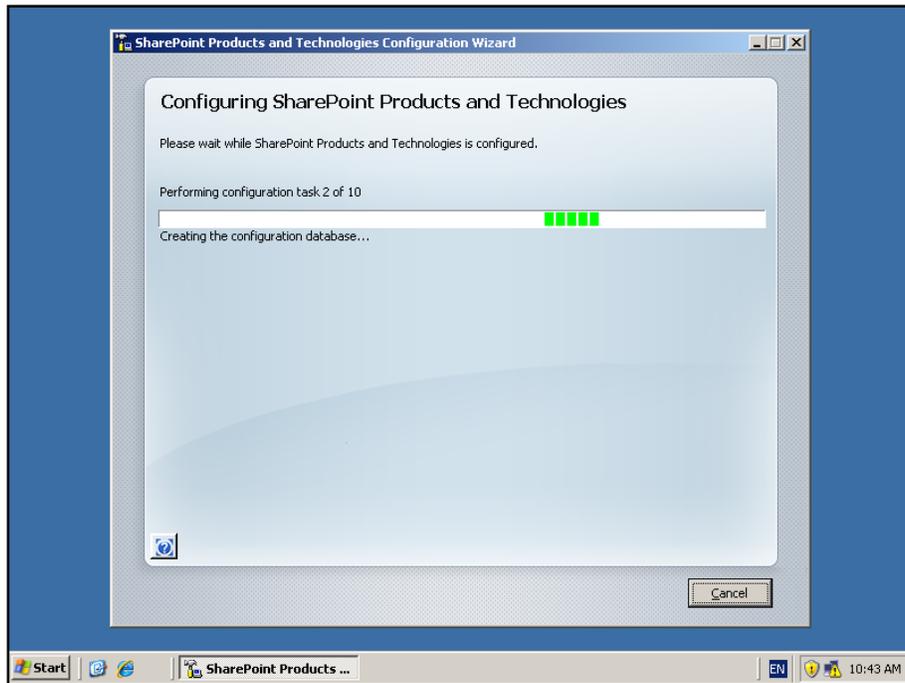
You will again be prompted to the fact that the following services will be started or restarted:

- Internet Information Service (IIS)
- SharePoint Administration Service
- SharePoint Timer Service

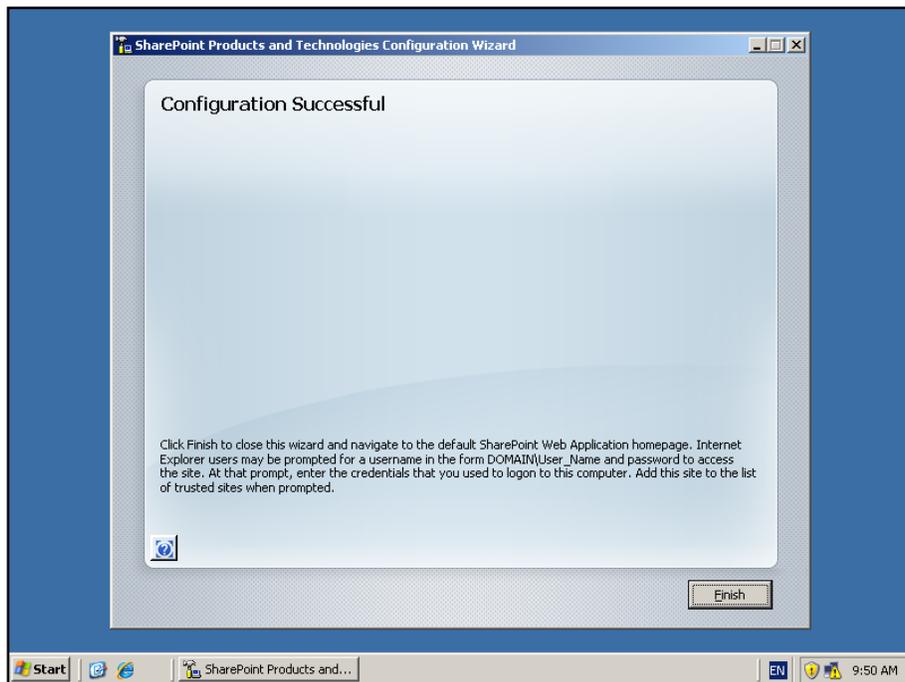
You need to be aware that this operation may have an impact on other applications that use these services which could impact network users interacting with them.

If you wish to proceed with the installation press the **Yes** button.

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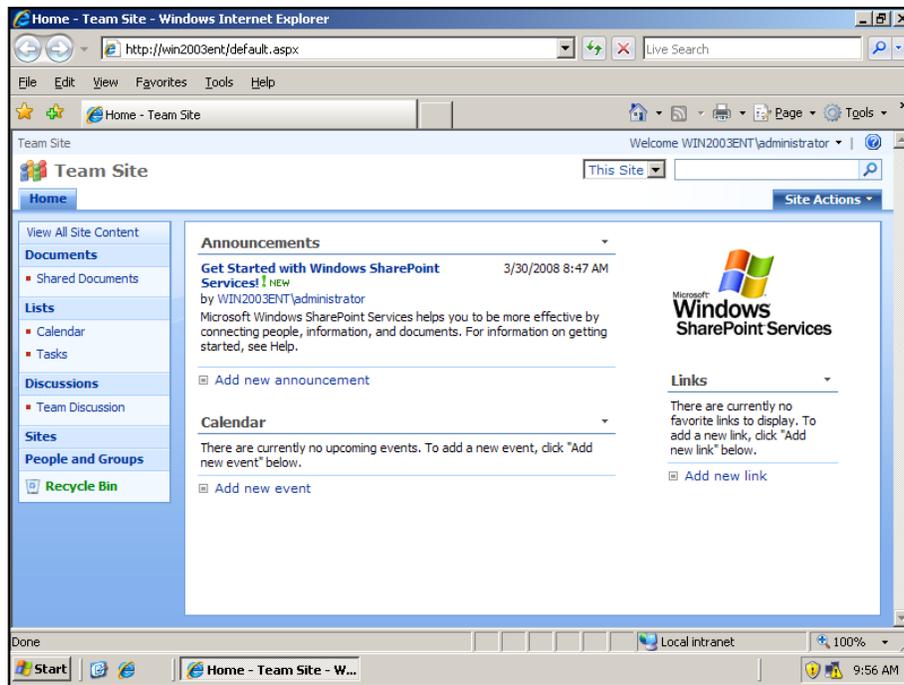


Unlike the *Advanced Installation*, no further configuration options are provided and the configuration wizard will now run through ten or so stages to complete the configuration on the server. During this process there is no option to enter further information and the only option available is to press the **Cancel** button to halt the process.



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When the wizard completes you should see a *Completion Successful* window like that shown above. Press the **Finish** button to continue.



Your new WSS v3 web site should automatically be brought up in a browser window. Unlike the *Advanced Installation*, all the SharePoint Central Administration set up will have been completed automatically. Your WSS v3 site is available on the default web site for this server (i.e. on port 80).

3.4 Conclusion

Prior to any installation you need to decide on what type of installation you wish to perform, advanced, default or stand alone. Each of these options presents a number of different options that can be selected during the installation process and can affect the future growth of your installation.

Once installation has been completed you should also check to ensure that search has been enabled on WSS v3. More details on how to this can be found in **Chapter 3 – Advanced Configuration** and **Chapter 11 – Search**.

Please send your comments and feedback to director@ciaops.com.