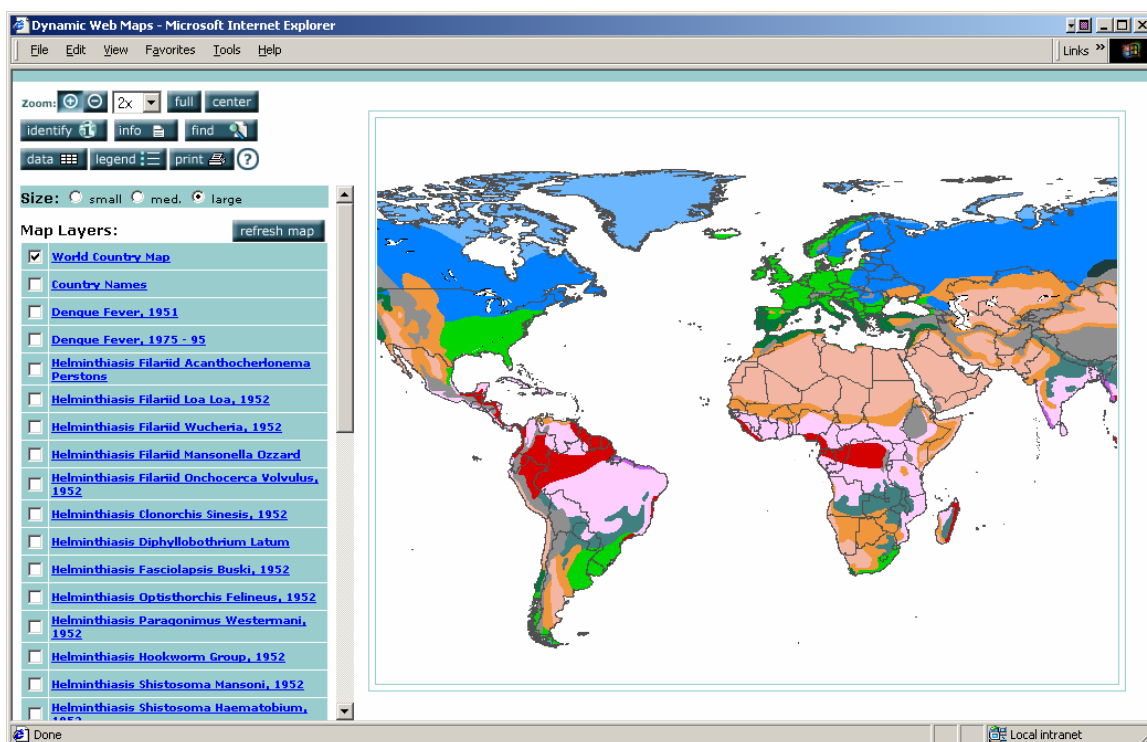


Dynamic Web Maps Server[©] v3.0



Documentation for the System Administrator

TCO CEE Terrestrial Carbon Warehouse Workshop
16-21 November 2002

With the support of:



The financial backing of the **Government of the Czech Republic**



The logistical assistance of **COMENIUS**



Environment and Natural Resources Service (SDRN)

©Copyright notice:

This manual and software is copyright and property of Spatial Knowledge Engineering (SKE) Inc. For more information about this product or its use, please contact SKE at: www.skeinc.com.

Contents

GETTING STARTED CHECKLIST	3
<i>Using this Manual</i>	3
WHAT IS DYNAMIC WEB MAPS SERVER?.....	4
SYSTEM ARCHITECTURE	5
INSTALLING THE DYNAMIC WEB MAPS SERVER.....	5
<i>Install Dynamic Web Maps Server</i>	6
<i>File Locations</i>	6
ADMINISTRATION OF THE DYNAMIC WEB MAPS SERVER.....	7
<i>Input the License Code</i>	7
<i>Locate the Warehouse Manager.mdb</i>	7
<i>Dynamic Web Maps Administration Settings</i>	7
THE “DWMS” DOMAIN USER ACCOUNT	9
<i>Set User Rights Policies (Windows 2000)</i>	11
<i>Set User Rights Policy (Windows NT)</i>	16
SETTING UP THE SERVER AND SECURITY	17
<i>The “DWMS30” Alias in Internet Information Server</i>	17
<i>Related Information Aliases</i>	21
<i>Directory Share Permissions</i>	23
<i>Setting Up the Server Display Property Settings</i>	27
<i>Defining a New Location of Temporary System Files (if required)</i>	27
<i>Setting-up the Windows NT/2000 Server Service</i>	30
<i>Run Dynamic Web Maps Server for the First Time</i>	31
SETTING UP DYNAMIC WEB MAPS ON YOUR WEB SITE.....	32
<i>Defining the Topic Links</i>	32
<i>Changing the “Look and Feel” of Dynamic Web Maps</i>	32
CHECKING SERVER PERFORMANCE	34

Getting Started Checklist

1. Uninstall any previous versions and backup any files you may have modified. (page 5)
Reboot the computer.
2. Install the software from the Dynamic Web Maps Server 3.0 Install.exe file and accept the prompts. (page 6) Reboot the computer.
3. Launch the application and input the license code. (page 7)
4. Connect to the Warehouse Manager.mdb. (page 7)
5. Set up the Communications Settings and others as necessary. (page 8)
6. Create the “DWMS” user account. (page 9)
7. Set up the user rights policies for the DWMS account (page 11 – Windows 2000; page 16 – Windows NT)
8. Set up the DWMS30 alias in the Default Web Site in IIS. Create the DWMS30 account, change the Default file to Default.asp, and set the Anonymous Access to the DWMS user. (page 17)
9. Create the various Related Information aliases in IIS for the various Atlases and set up access for the DWMS User account. (page 21)
10. Set up the appropriate directory share permissions for the directories that the program uses (if necessary). (page 23)
11. Check the server display property settings. (page 28)
12. Define a new location of temporary system files, if required. (page 28)
13. Set up the DWMS30 service to run Automatically and to log on through the DWMS user account. (page 30)
14. Start the DWMS30 service. (page 31)
15. Check that everything is running at: “http://server_IPorName/dwms30/default.asp”. (page 32)
16. Set up the web site and web pages to link to the various topics. (page 32)

Using this Manual

To install and set up Dynamic Web Maps Server, you already should have a good understanding of the Windows NT/2000 Server operating system and web site management. You will also need to know how to use the Dynamic Knowledgebase and therefore how to register map layers, tabular data sets and set up web “Topics”. An understanding of Microsoft Access and other database management systems is also important.

The manual is written to assist in the setting up and configuration of the Dynamic Web Map Server and follows a sequential set of steps. It is highly recommended that the configuration be done in this sequence.

What is Dynamic Web Maps Server?

Dynamic Web Maps Server publishes data and information contained in the Topics in an Atlas(es).

Dynamic Web Maps along with Dynamic Knowledgebase make it very easy for an organization to integrate and publish spatial, tabular and document information on their web site. Users accessing the organization's information only need access to the web site from a computer and a web browser. No plug-ins are required by the client on their machine.

Dynamic Web Maps Server provides on the web many of the functions that Dynamic Maps provides on the desktop. As with using Dynamic Maps, the data must first be organized and prepared with Dynamic Knowledgebase into a data warehouse/atlas and atlas topics.

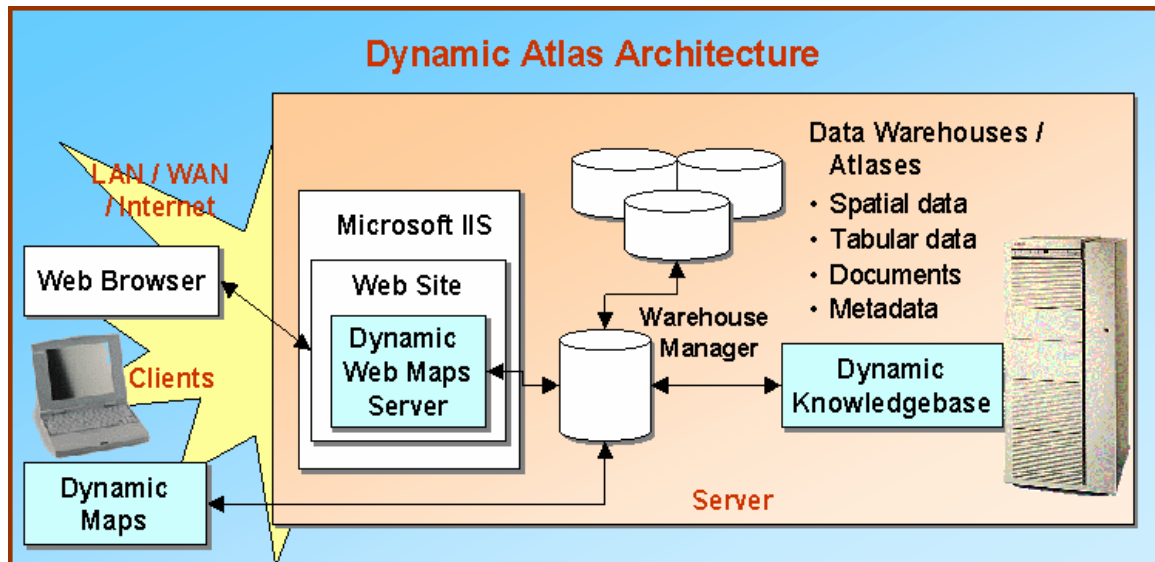
Dynamic Web Maps Server enables users to access an atlas topic's maps, tabular data sets and associated metadata / descriptions along their associated data and information (documents, pictures, etc.) via the Internet or Intranet as part of a web site.

The web site can be set up so that users are directed to specific topics, or the default Topic list page can be used which shows the complete list of topics.

Dynamic Web Maps Server is a Windows NT / 2000 Server compliant application that runs as a service on the organization's NT / 2000 Server computer and handles all the client requests that are received through Microsoft Internet Information Server for viewing the maps, tabular data, documents and associated metadata.

System Architecture

The following architecture diagram is helpful in illustrating the different components that Dynamic Web Maps Server uses and how it fits into the overall Dynamic Atlas architecture.



Installing the Dynamic Web Maps Server

Before installing the server application, make sure that the following components are installed on the server computer:

- Up-to date service packs and security patches for the operating system; and,
- Under NT, Option Pack 4.0, which installs M/S Internet Information Server 4.0+.

Uninstall First!

If you are installing a new version or re-installing Dynamic Web Maps Server program, first remove the existing program from the computer. To uninstall the existing version, stop the service first in Windows NT by selecting **Start** → **Settings** → **Control Panel**, double-clicking on the **Services** icon, selecting the "DWMS30" Service, and clicking the **Stop** button. To stop the service in Windows 2000 Server, select **Start** → **Programs** → **Administration** → **Services**. Select the DWMS30 service and click the **Stop** button.

There may be files that you want to keep and perhaps re-use, if for example, you made changes to the user interface and you have new image files or web page files. Copy these into a temporary directory prior to the uninstall so that they are available for use with the new version of the software.

Once the service is stopped, go to **Control Panel / Add Remove Programs** and locate **Dynamic Web Maps Server** in the list of programs. Select it, click "Remove" and accept all the prompts.



If the uninstall prompts whether you want to delete shared files, pick “no”.

There may be a message from the install program when it is finished that some files could not be removed. This is probably because new or changed files were added to the program folder after installation, so they were not “registered” during the initial install. If you are removing all of the Dynamic Web Maps Server programs, these files – located in the {root:\Program Files\Dynamic Atlas\Dynamic Web Maps Server 3.0} directory – can be removed manually by selecting and deleting them.



The uninstall will prompt to reboot the computer. Uninstall at a time that is convenient to have the server taken offline for a few minutes.

Reboot the computer to complete the uninstall process.

Install Dynamic Web Maps Server

Choose a time to do the install and set up when the server can be off-line for several minutes. There are a few times when the system will be down during the install and set up process.

Double-click on the file “Dynamic Web Maps Server 3.0 Install.exe” to install. Other programs should not be running during the installation. Accept the defaults that are provided. When the installation is complete, reboot the computer to properly register and activate the system.

File Locations

The installation creates the following files on the server in the {operating system drive}\Program Files\Dynamic Atlas\Dynamic Web Maps Server 3.0\ directory:

- Dynamic Web Maps Server 3.exe, the Server application,
- Various web pages used by the program,
- DWMS.ini, containing Server settings,
- DWMSAdmin30.exe, the server administration tool,
- Dynamic Web Maps Server Environment.mdb, the Access database containing environment settings for the databases it uses,
- SKEWMS.exe, the CGI communications handling application,
- An Icons folder containing the buttons used by the program interface,
- An Images folder containing the buttons and images used on various pages generated by the software,
- A Webimages folder, containing the map images created by the system and served to clients. These images are deleted regularly by the software, and
- The online help files, which are located in the \Help folder.

Administration of the Dynamic Web Maps Server

Input the License Code

Start the **Dynamic Web Maps Admin** application from the **Start** → **Programs** → **Dynamic Atlas** menu group. The first time the software is run, it will ask for an “evaluation” or “full” license key code. If you don’t have a key code, please contact SKE Inc. (info@skeinc.com). The program will not run without the license key code.

Locate the Warehouse Manager.mdb

The first time the application runs, it needs to connect to the Warehouse Manager.mdb, which keeps track of all the warehouses/atlas. If the Warehouse Manager is located on another computer, you will need to use network pathnames. Otherwise local pathnames can be used.

Dynamic Web Maps Administration Settings

Communications Settings

IP Address/Host Name: Identify the IP address of the server hosting the Dynamic Web Maps Server application. The server computer name can be used if the server does not have a static IP.

This IP address or server name is the same IP address or server name used when publishing a warehouse to the web. Specifically in the Warehouse Maintenance form of Dynamic Knowledgebase, use the same IP address or server name (see diagram below).

(Screen capture from Dynamic Knowledgebase)

Dynamic Knowledgebase - Warehouse Maintenance

Warehouse - Uganda Demo Atlas

Warehouse Name: M
Uganda Demo Atlas

Warehouse Description:

Warehouse Location: M
D:\Data Atlases\Uganda Demo Atlas\Warehouse KB\Uganda Demo Atlas KB.mdb

Map Projection: M
Geographic

Mapping Coordinate Units: M
Decimal Degrees

Reference Ellipsoid: M
WGS 84

Warehouse Password:

Related Information:

DWMS Server IP Address/Host Name:
SKE003

Web Alias:
UgandaRIO

Location

Add Delete Update Help Clear Cancel

TCP/IP Port: The default is 4001. You can select a different TCP/IP port for the Server to communicate through to avoid conflicts in your network environment by typing the port number in the TCP/IP Port window.

Timeout: A request for information from the Web Client to the Dynamic Web Maps Server can be held up due to heavy traffic on the network or by having too many requests to the Server in a short period of time. The Timeout setting indicates the maximum length of time that you want a Web Client to wait for information before the request is cancelled by the system. This value may have to be altered according to the traffic load on your network. The value must be larger than 20 seconds and no larger than 120 seconds.

Images and Image Types

The server generates images that represent the spatial data being requested by the client. You have the option of having the server create GIF or JPEG type images. JPEG's are good for reproducing image type data. GIF's are better when the topics use primarily vector data.

Error Log

A log file of all the actions that Dynamic Web Maps Server undertakes (not just errors) is maintained under the name "DWMS Error.log" in the {root}\Program Files\Dynamic Atlas\Dynamic Web Maps Server 3.0 directory. The file should be cleared occasionally so that it takes up less drive space on the server. To clear the log file click the Clear Log button.

Administration Settings

When information in the Warehouse Manager or the warehouse(s) that it manages has been changed, the Dynamic Web Maps Server often must be re-initialized to recognize the changes.

A manual re-initialization can be requested at any time by clicking the **Re-Initialize Server** button. This request will be passed to the Dynamic Web Maps Server and performed within a minute of the request.

Another way to re-initialize the server is to stop and start the DynamicWebMaps Service (see Setting up Windows NT/2000 Server Service for more details). Doing this ensures that the re-initialization is immediate.

If the system is very busy or the warehouse information is changing regularly you may opt to have the re-initialization performed daily at off peak times automatically. Click the Auto Initialize checkbox on and click the Set Time button to select a time at which to perform the re-initialization daily. Click the Update Settings button to complete the Settings change.


Depending on the speed of the server and the number and complexity of the Topics being published, the re-initialization may take one or several minutes to complete

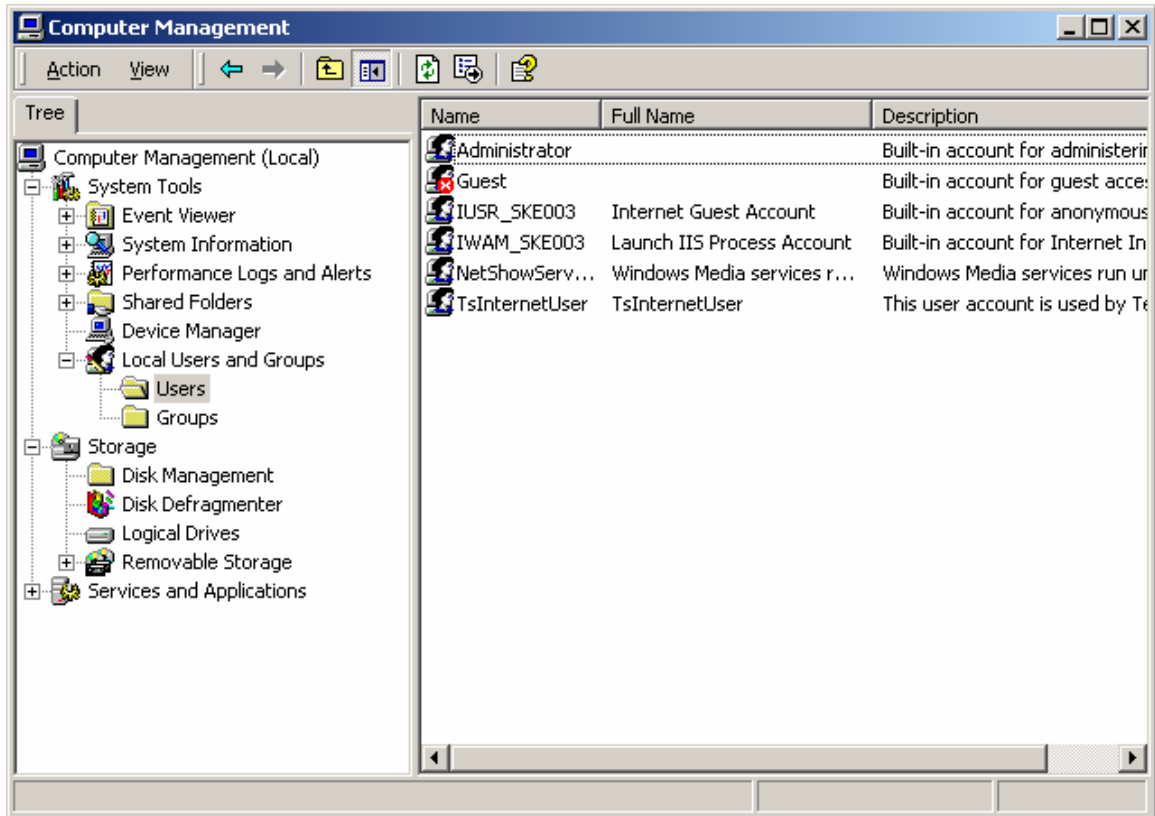
During re-initialization the maps are not produced the web maps server.

The “DWMS” Domain User Account

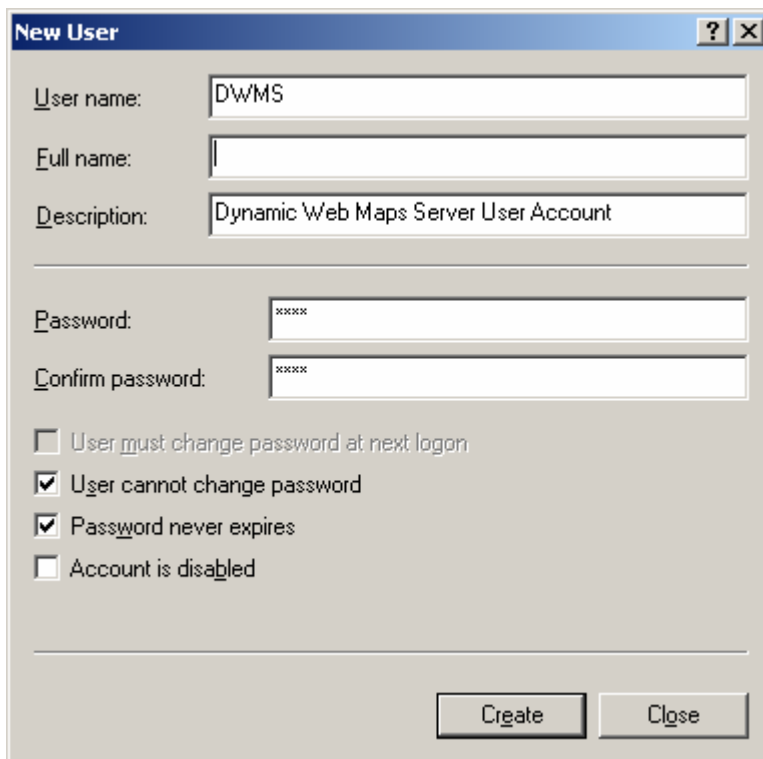
Note: the following instructions reflect the 2000 Server operating system. Some screens and functions will be different in Windows NT; however, they all have their equivalencies.

By creating the “DWMS” domain user, you are setting up an appropriate Anonymous Access account so that anyone using the site from the Internet / Intranet will be recognized as having sufficient security privileges to access the data warehouses through the application. The instructions shown below reflect a Windows 2000 Server environment in which the Server is also set up as a Domain Controller. If your server is not a Domain Controller, the instructions are similar, however, you will need to use a local account name for this machine.

Select  Start → Administrative Tools → Computer Management. Select Local Users and Groups. The following similar screen should appear:



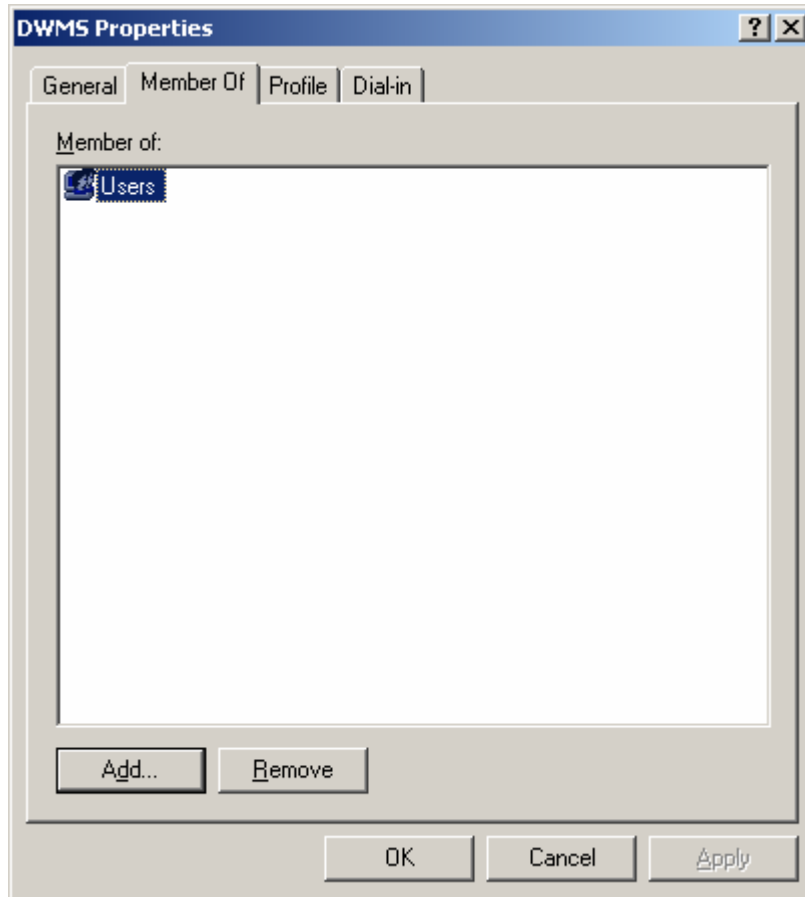
Create a New User



Create a New User called “DWMS”, and provide an appropriate Full Name, Description, Password and Confirm Password. Set the Password so that it does not need to be changed and so that it will not expire. REMEMBER THE PASSWORD – you will need to use it later when you assign DWMS access privilege to various system components.

Note: the name of the user, of course, does not have to be “DWMS”, however, the rest of the instructions in the manual use the name is “DWMS”.

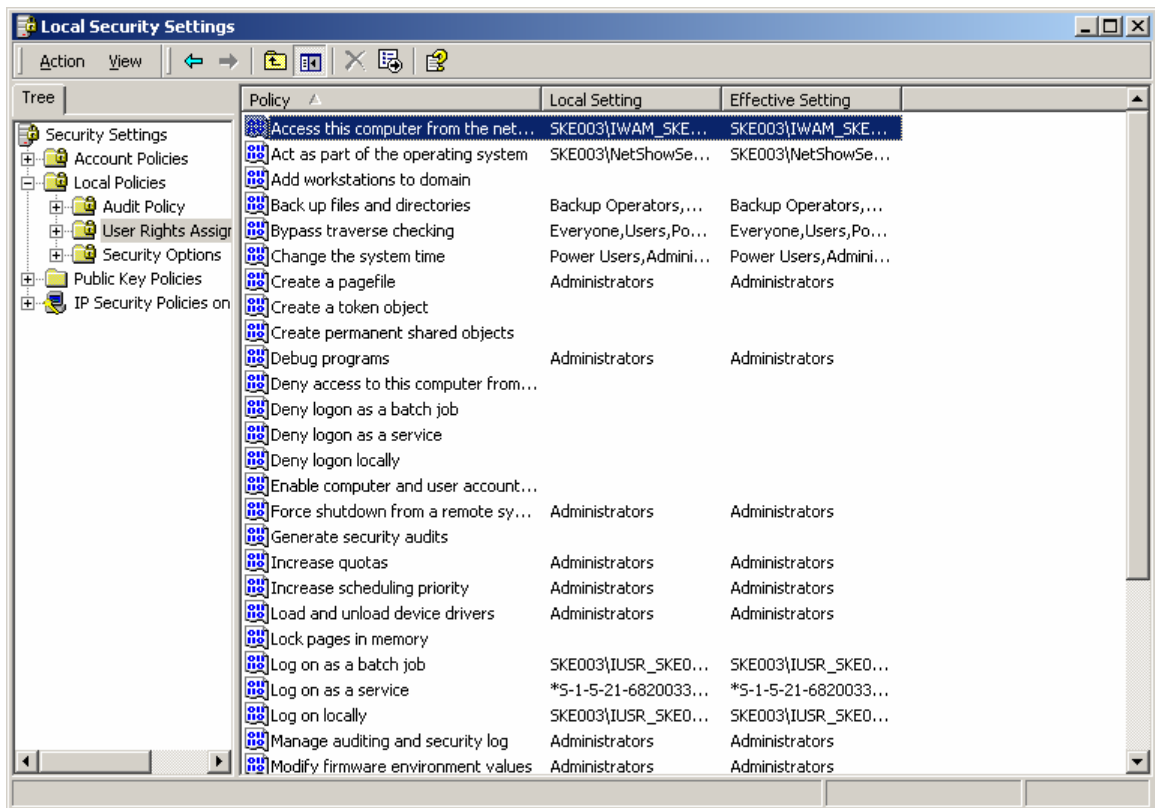
Make the user part of the Domain Users group if this is a Domain Controller server, or part of the User group if this is a stand-alone server.



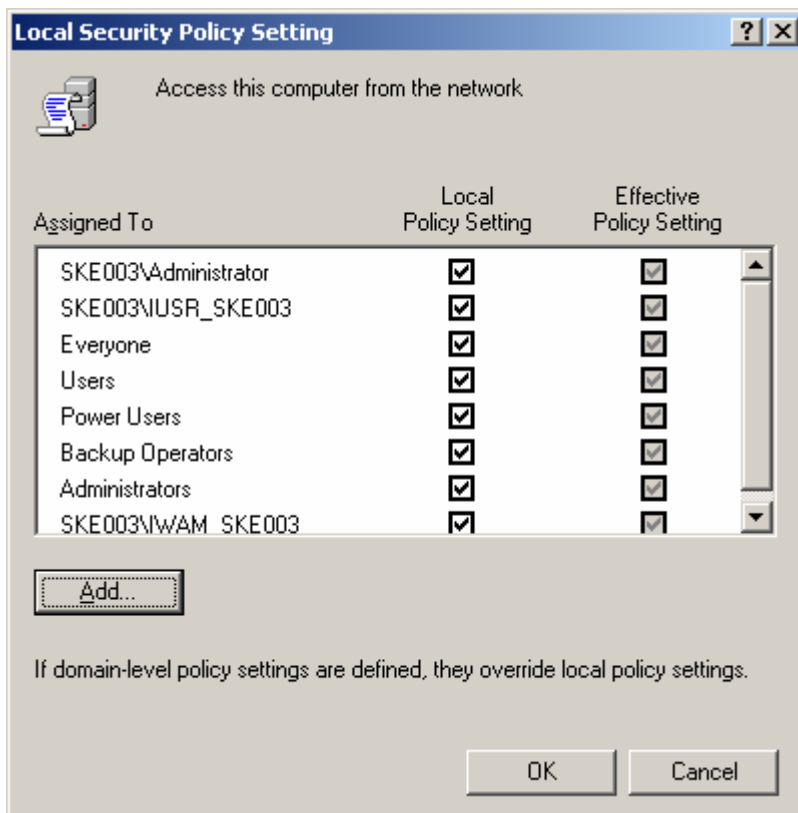
Close Computer Management console.

Set User Rights Policies (Windows 2000)

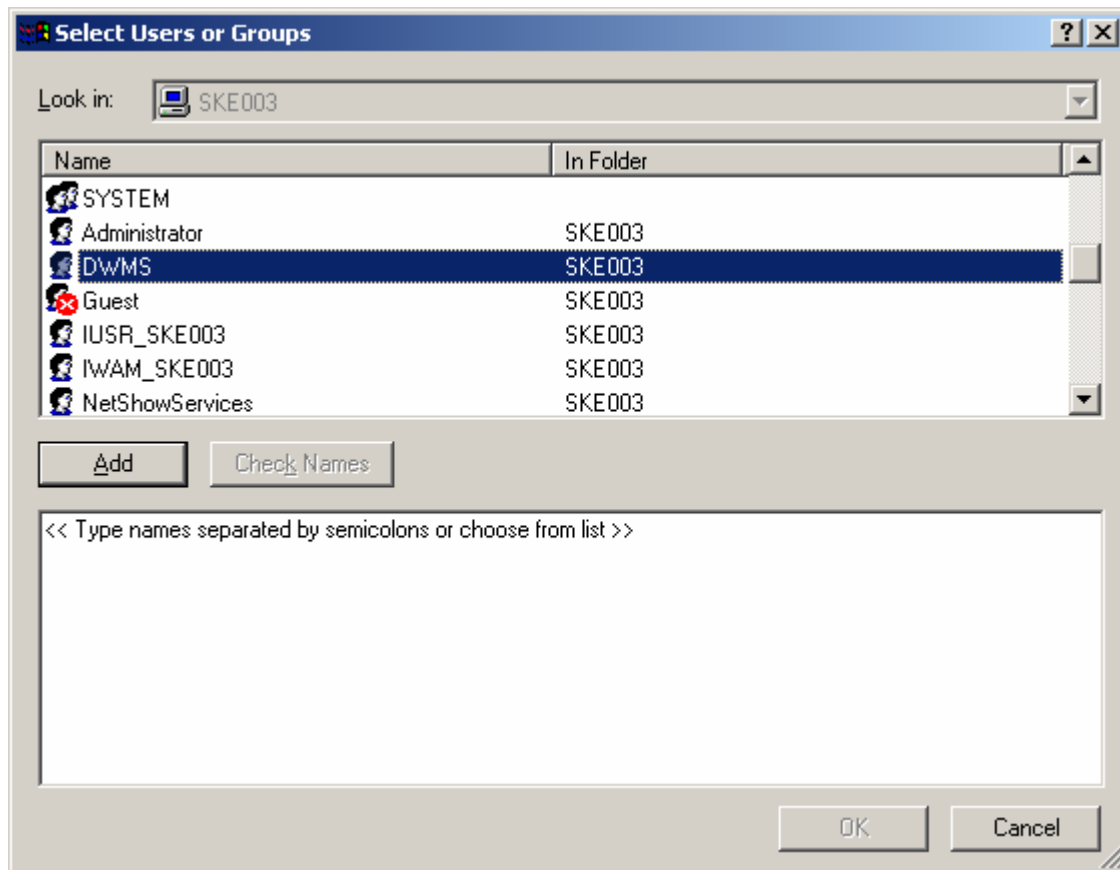
Select **Start** → **Administrative Tools** → **Local Security Settings**. Then select **Local Policies** → **User Rights Assignment**



Select “Access this computer from the network” policy and Add the DWMS user.



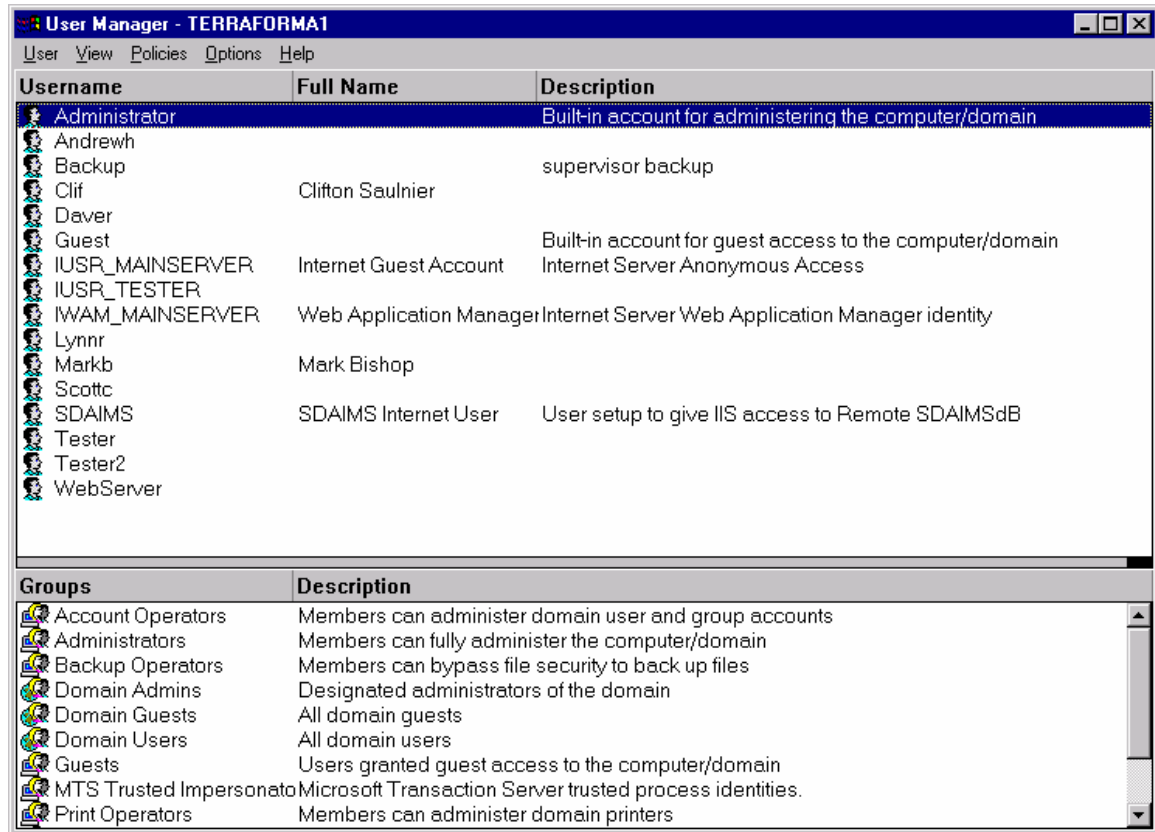
Click the Add button to see a full list of user accounts.



Repeat this process for “Log on locally” and “Log on as a service” privileges.

For Windows NT Server, the following are the sequence of steps to create a DWMS User Account.

Select the User Manager for Domains from the Start → Programs → Administrative Tools (Common) → User Manager for Domains. You will see a screen that looks like the following:



From the “User” Menu options, choose the “Select Domain” option and select the domain on which the Dynamic Web Maps Server is installed.

From the “User” Menu options, choose “New User” to create an Anonymous User for Dynamic Web Maps Internet / Intranet access.

Create a New User called “DWMS”, and provide an appropriate Full Name, Description, Password and Confirm Password. Set the Password so that it does not need to be changed and so that it will not expire. REMEMBER THE PASSWORD – you will need to use it later when you assign DWMS access privilege to various system components.

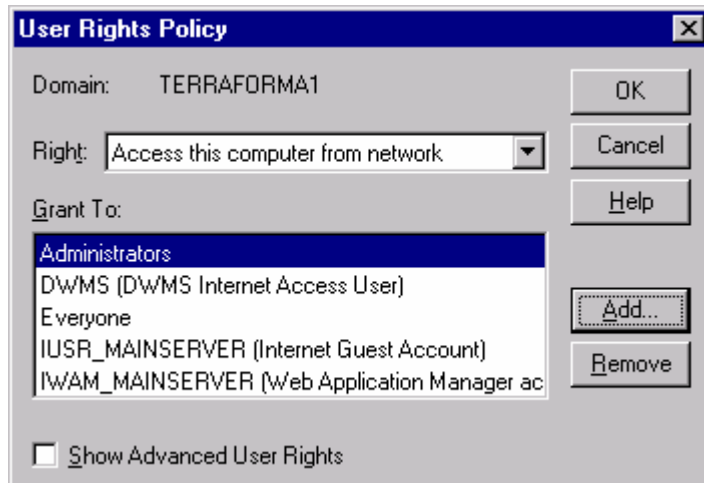
Note: the name of the user, of course, does not have to be “DWMS”, however, the rest of the instructions in the manual use the name is “DWMS”.

Press the “**Groups**” button shown above and make the DWMS user part of the “Domain Users” group (or “Users” if this is a local account) by selecting and adding or removing memberships as necessary.

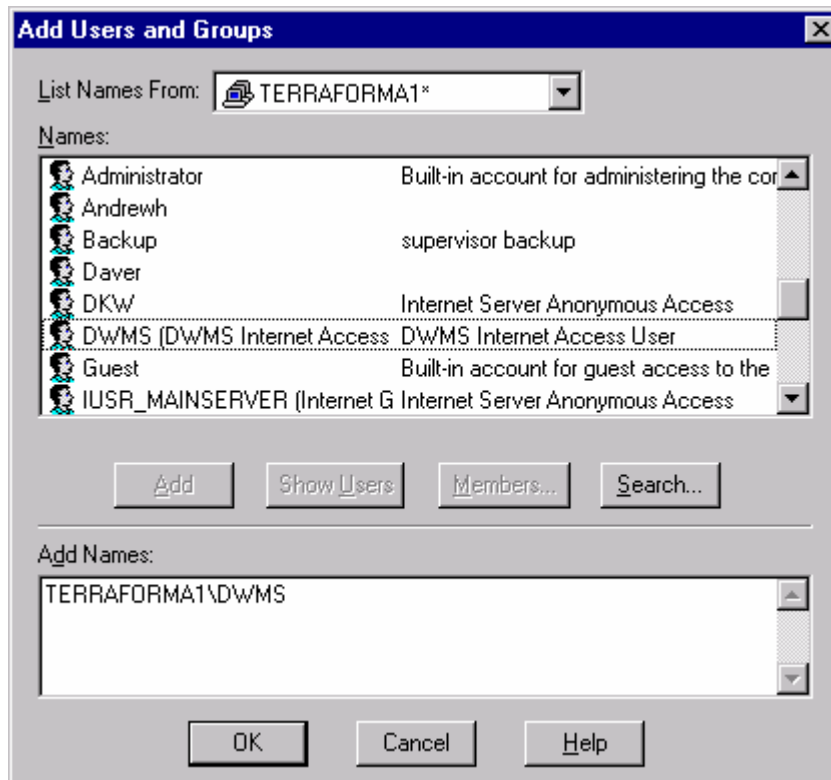
Press **OK** to set the Users list. Press **Add** in the previous screen to actually add the user to the domain. Press **Close** to exit New User form.

Set User Rights Policy (Windows NT)

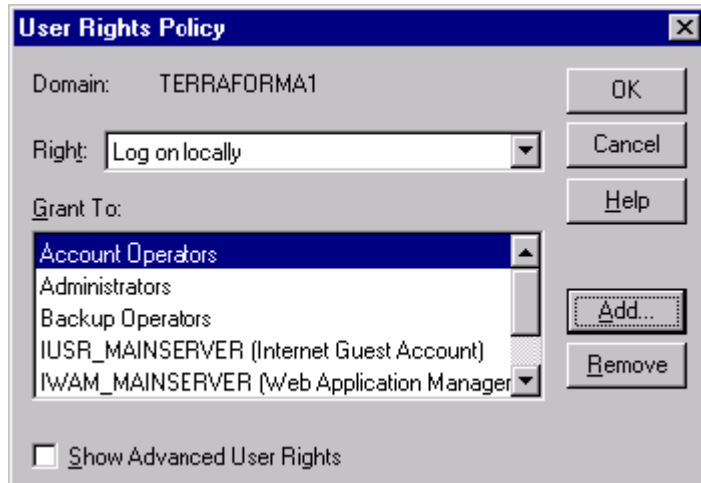
From the User Manager for Domains main menu, choose Policies and the User Rights. The following form will appear:



You first need to add the rights to the user to "Access this computer from the network". To do this, click "Add" on the User Rights Policy form. On the Add Users and Groups form, click Show Users. A complete list of users for the domain will be given. Select the "DWMS" user from the list and click "Add". Then click OK.



You must also set the User Rights Policy to "Log on locally".



As before, click Add on the User Rights Policy form. On the Add Users and Groups form, click Show Users and select the “DWMS” user from the list. Click Add on that form and then click OK. Then exit User Manager for Domains.

If you decide to include additional security options for the user, thoroughly test the web site to make sure Dynamic Web Maps Server still runs as documented.

Setting Up the Server and Security

The “DWMS30” Alias in Internet Information Server

The DWMS30 alias will be created when Dynamic Web Maps Server is installed; however you still need to set up its properties. The DWMS30 alias points to the directory containing the web pages for Dynamic Web Maps Server. These files are located in the *{root}:\Program Files\Dynamic Atlas\Dynamic Web Maps Server 3.0* directory – where the “root” is a local path not a network path.

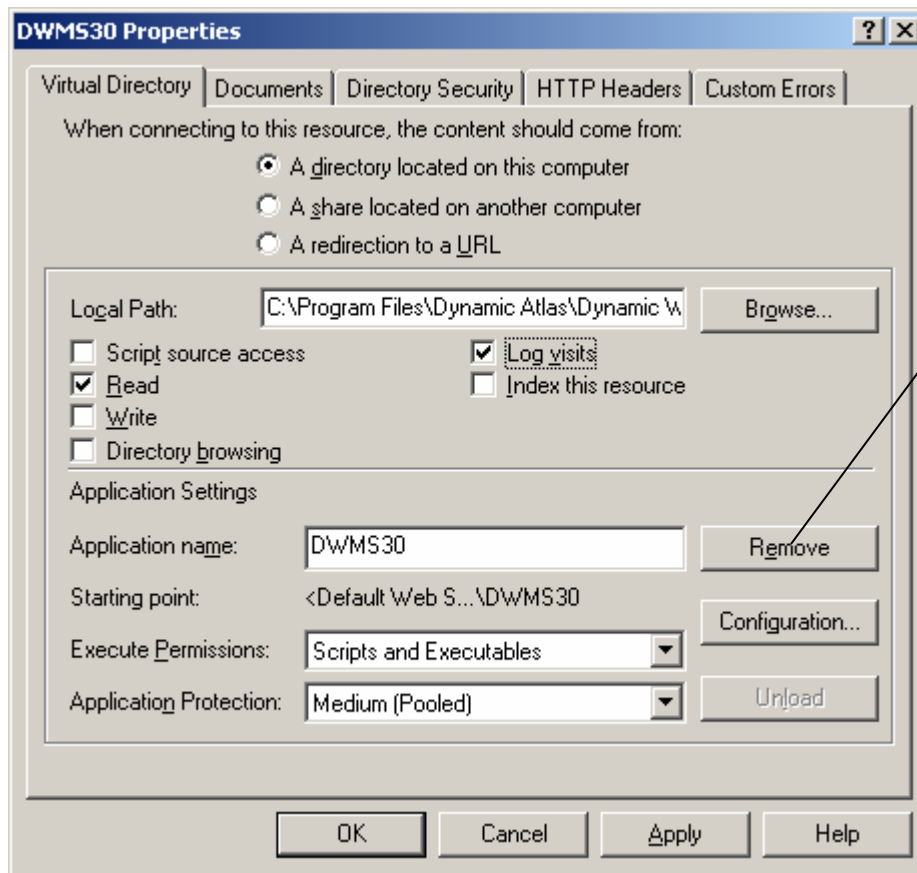
In the Internet Information Services console Start → Programs → Administrative Tools → Internet Information Services, select the Default Web Site, and right click on the DWMS30 alias to select its “Properties”.

Properties of the “DWMS30” Alias

Look at the “DWMS30” alias’ properties by right-clicking on the alias and selecting “Properties”.

Virtual Directory Tab

The settings on the Virtual Directory Tab should reflect those in the screen capture below. The Application Name “DWMS30” may need to be created by clicking the “Create” button.



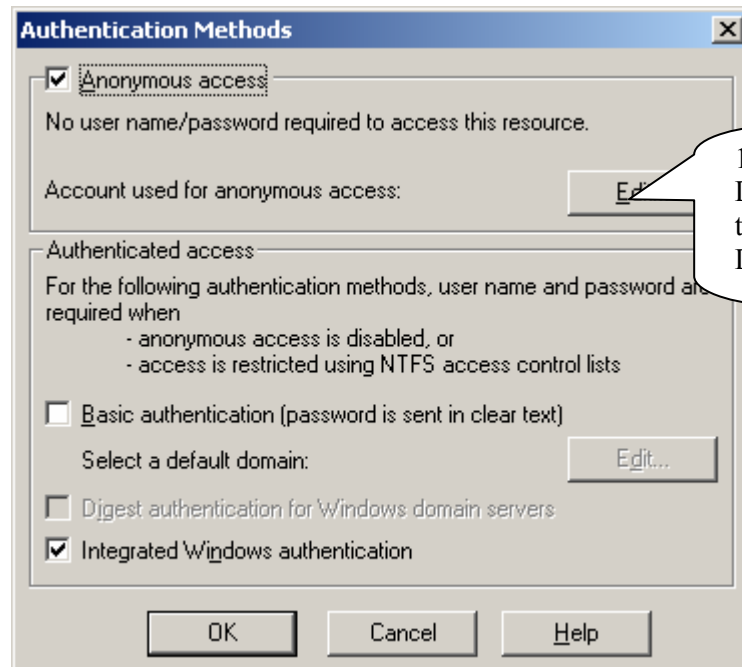
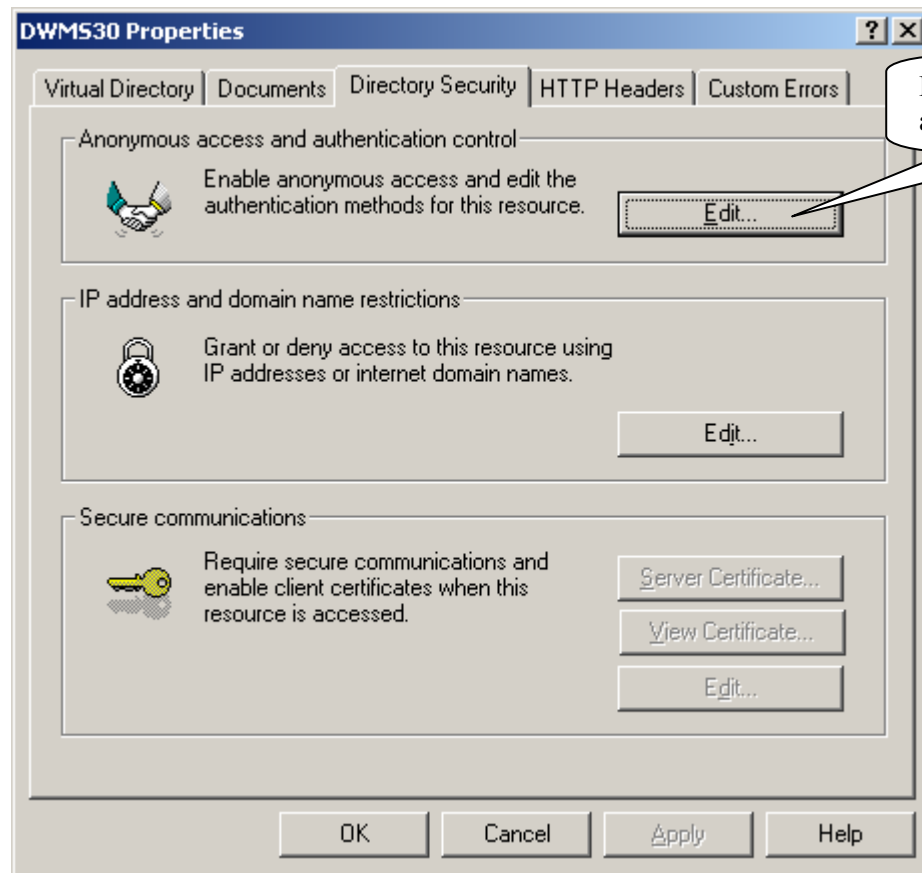
Documents Tab

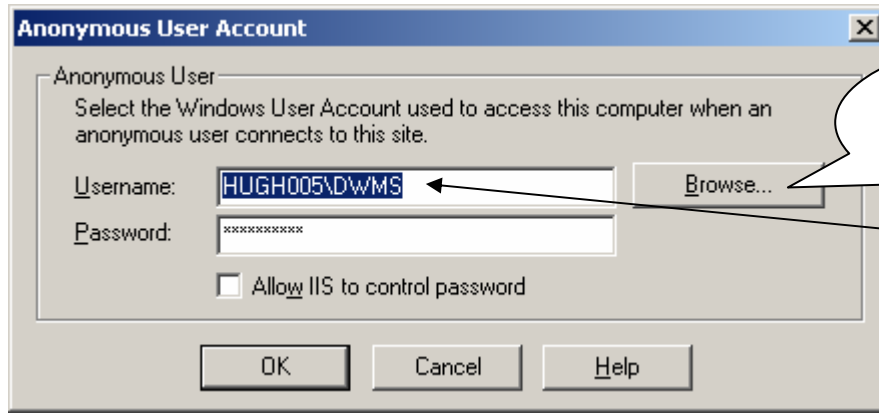
On the Documents tab, set the default document to “**default.asp**” and click on the “Enable Default Document” indicator.

Directory Security Tab

From the Directory Security Tab, you need to set up the DWMS30 alias so that the DWMS user account can access the directory.

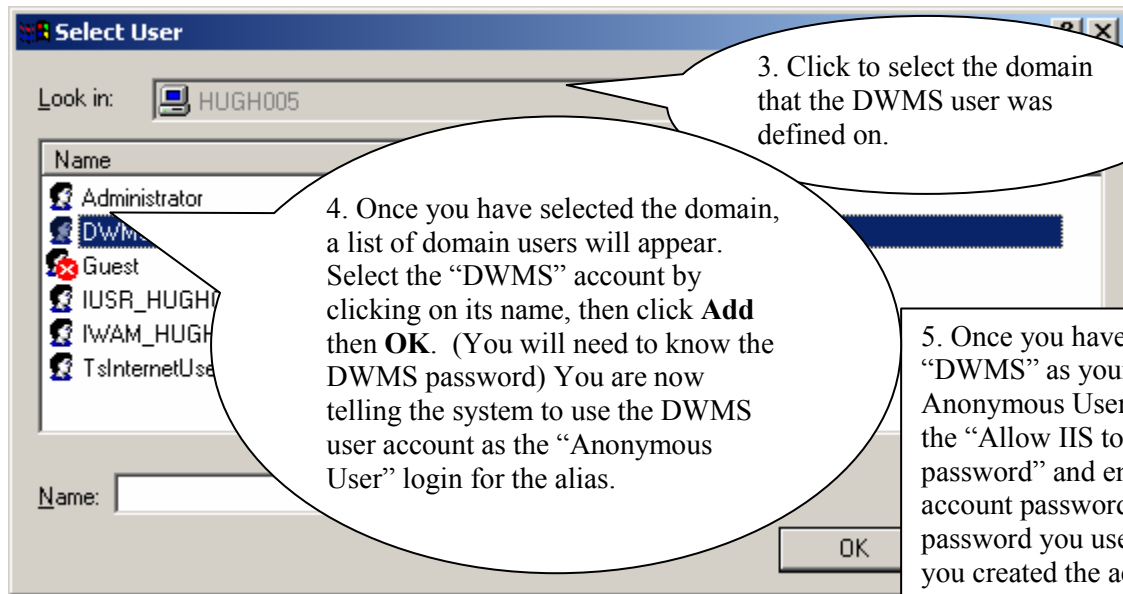
Press Edit to start to set up the Anonymous access.





2. Press Browse to get a list of all the domains and user accounts.

Select the DWMS user account created earlier.



3. Click to select the domain that the DWMS user was defined on.

4. Once you have selected the domain, a list of domain users will appear. Select the "DWMS" account by clicking on its name, then click **Add** then **OK**. (You will need to know the DWMS password) You are now telling the system to use the DWMS user account as the "Anonymous User" login for the alias.

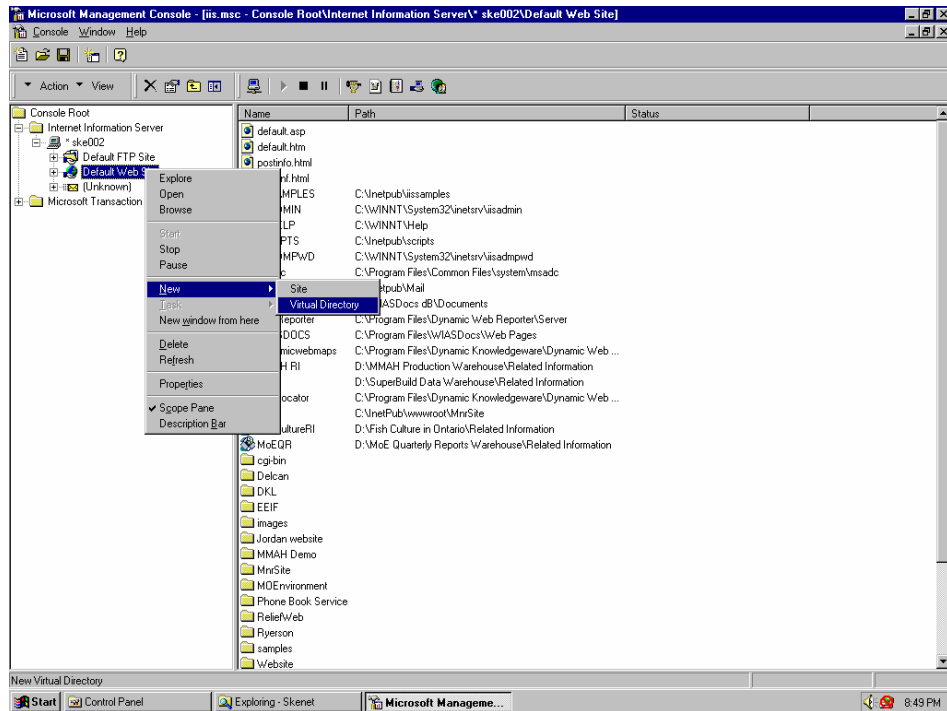
5. Once you have selected "DWMS" as your Anonymous User, turn off the "Allow IIS to control password" and enter the account password (the password you used when you created the account).

Select OK to accept the settings and clear the various forms and return to the main IIS console. At this point, the set up of the DWMS30 alias is complete and you should stop and start the Default Web Site.

Related Information Aliases

In order for the DWMS User to be able to access related information (any documents, pictures, URLs, etc. attached to any map features) that are stored in a registered data warehouse, the warehouse related information folder must have a web alias associated with it. An alias must be set-up for each warehouse related information folder whose contents will be published on the web site. This can be done in Internet Information Server (IIS) as follows:

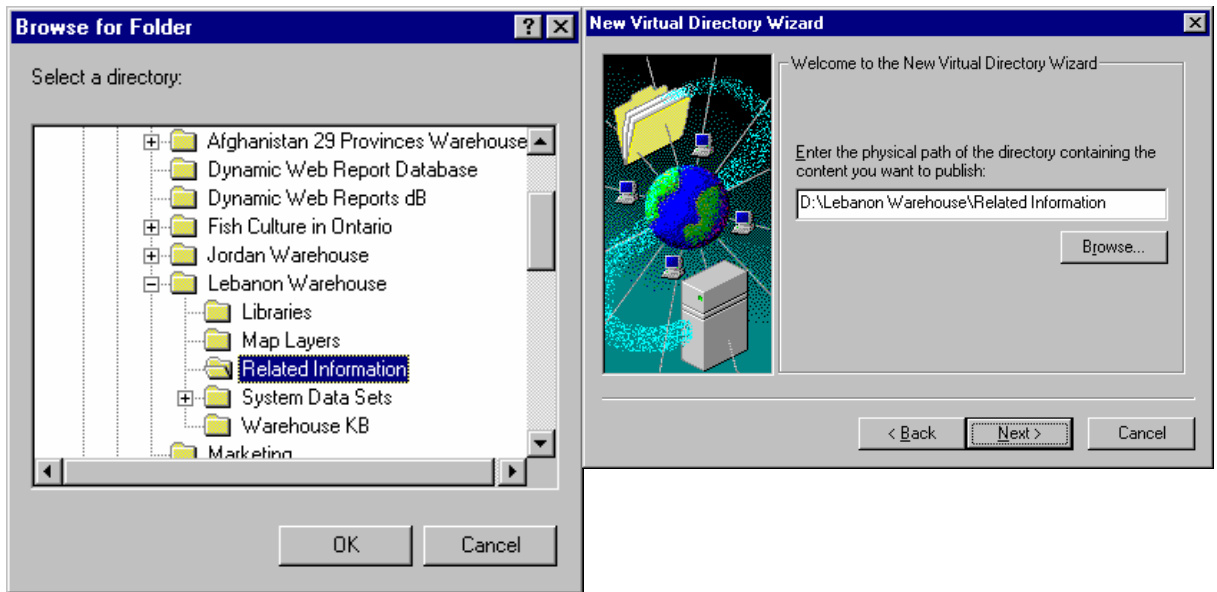
1. Start-up the Internet Service Manager for IIS.
2. Select the Default Web Site and right click to see a list of functions.



3. Select the New-Virtual Directory.
4. Enter the name of the alias.



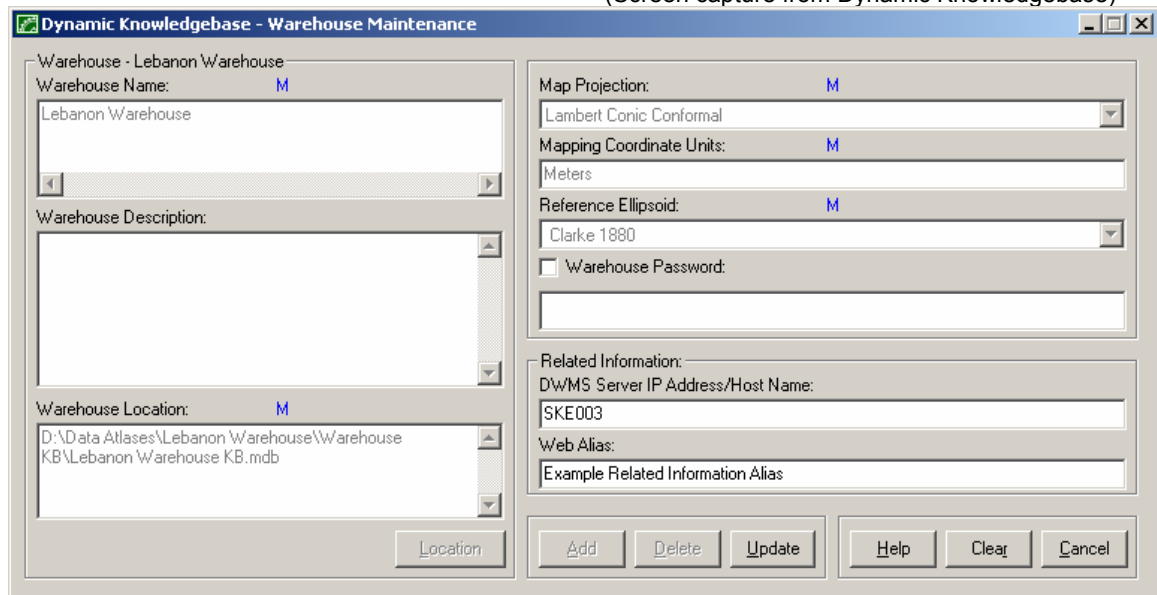
5. Identify the location of the warehouse related information folder.



6. Accept the remaining defaults.

Note, the alias name set up in IIS must be also reflected in the Warehouse Maintenance form in Dynamic Knowledgebase for the specific warehouse. Please refer to the Dynamic Knowledgebase manual for more details.

(Screen capture from Dynamic Knowledgebase)



Set Up Directory Security for the Related Information Alias

Just as the “DWMS30” alias requires appropriate security set up on its directories and files, so too does the alias for the related information. As with the “DWMS” alias, you need to provide the “DWMS” account “Anonymous Access” privileges. See the section above for screen captures and instructions on setting up the Directory Security for the alias. Once again, use the “DWMS” user account to set up the alias’ “Anonymous Access” privileges.

Directory Share Permissions

With users of Dynamic Web Maps accessing the web site and the data files through the “DWMS” anonymous user account, appropriate share permission settings should be defined for the directories being accessed.

Note, directory and file security is often within the management realm of the organization. These instructions are provided to assist in setting up file / folder security if needed and provide guidance on the minimum privileges required in order for the system to work properly.

The following directories can have security settings applied to them for the “DWMS” user:

1. The *C:\Program Files\Dynamic Atlas \Dynamic Web Maps Server 3.0* directory -- and its folders and files.
2. The *Warehouse Manager* directory and *Warehouse Manager.mdb* file.
3. The warehouse directory(s) -- and its folders (*Libraries, Related Information, Map Layers, System Data Sets, Warehouse KB*) and their files. If there is more than one warehouse, repeat for each.

Note: Dynamic Web Maps Server uses a lot of directories and files; however, you don't have to set the permissions individually. You will only need to set permissions at the root level for these directories / files (i.e. set once for each of the above numbered items).

Step 1. Choose the Directory to Set Its Security

Using **Windows Explorer**, navigate to each of the three directories specified above: the Dynamic Web Maps Server 3.0 directory; the Warehouse Manager directory; and, the warehouse directory containing the warehouse folders and files one at a time and carry out the list of instructions noted below. If there is more than one warehouse, repeat for each warehouse directory.

Right-click your mouse on the directory name and then select “Properties” from the list of options and the following form will appear:



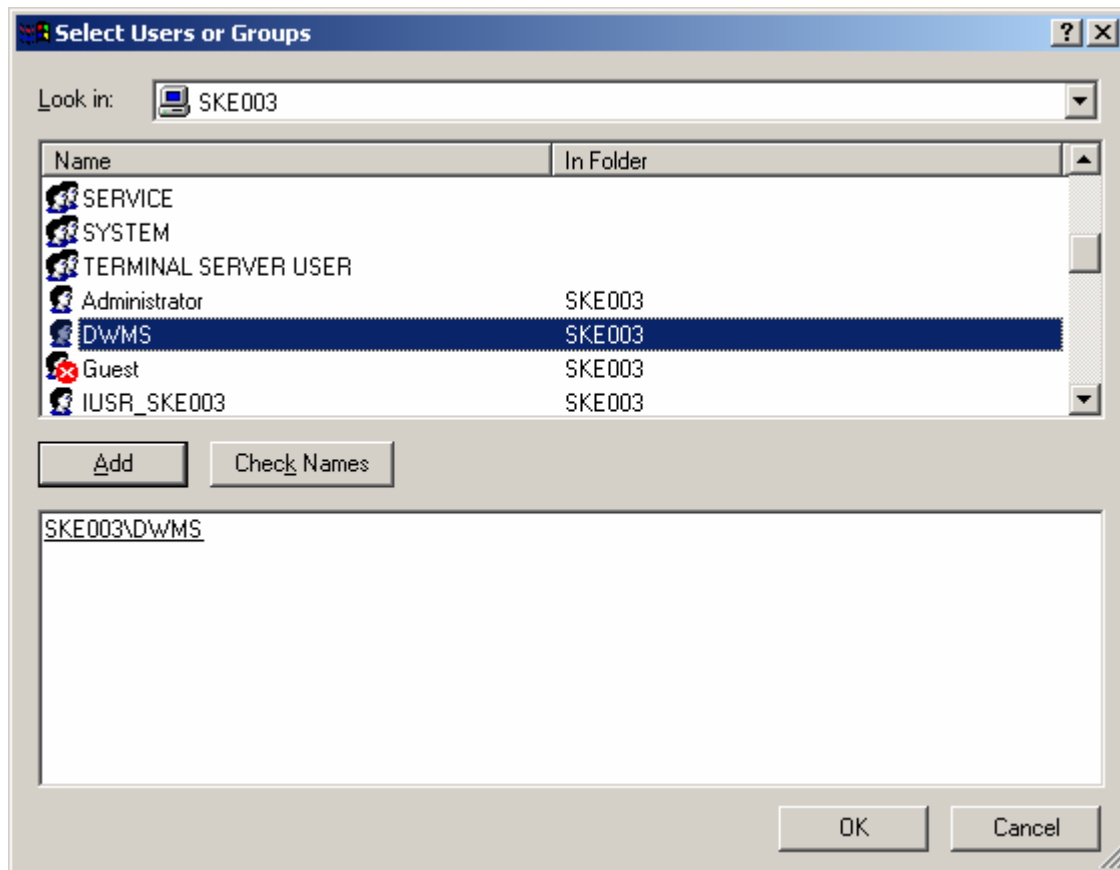
Select the Security Tab of the Properties form. Click on the Permissions button to get the Directory Permissions screen.

If you also have Dynamic Maps users accessing the warehouse directory, please see the Dynamic Knowledgebase manual for help in setting appropriate user access privileges for a specific Dynamic Maps user group.

Make sure the "Replace Permissions on Existing Files" is checked ON so that all the files in and below the current folder have their permissions changed. Likewise make sure the "Replace Permissions on Subdirectories" is checked ON so that all subdirectories under the current folder have their permissions set.

Step 2. Add Privilege for DWMS User to Directory and Sub-folders / Files

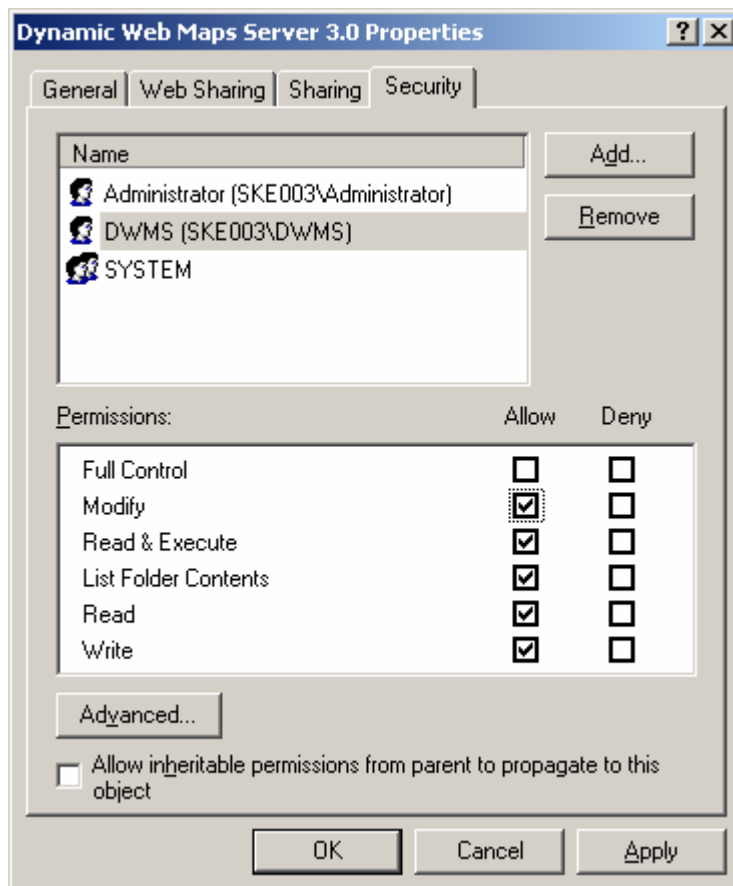
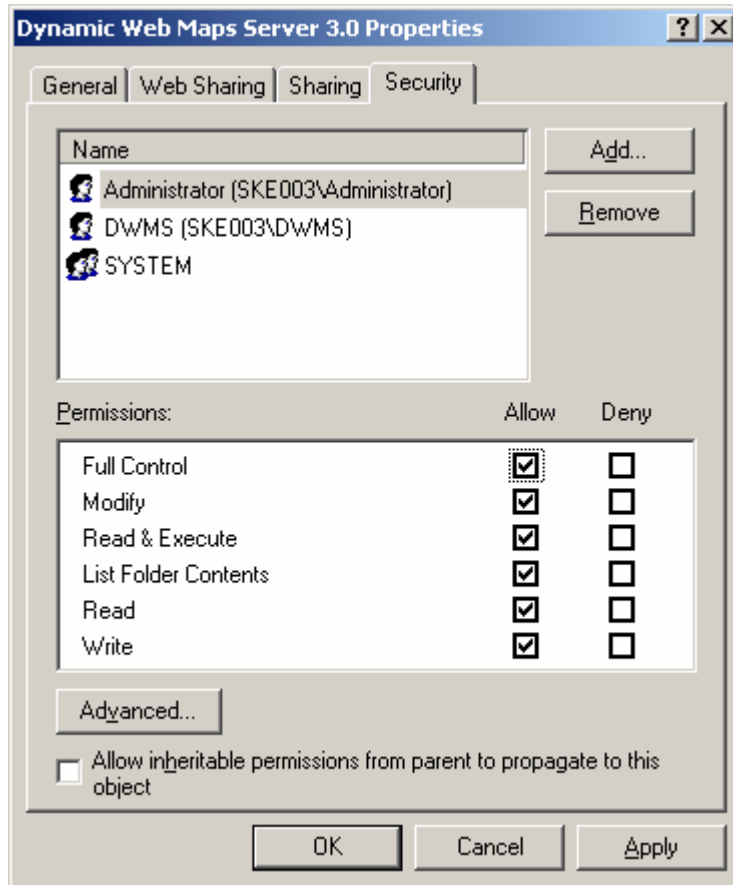
To give the "DWMS" user "Change" permissions, click **Add** to get the following screen.

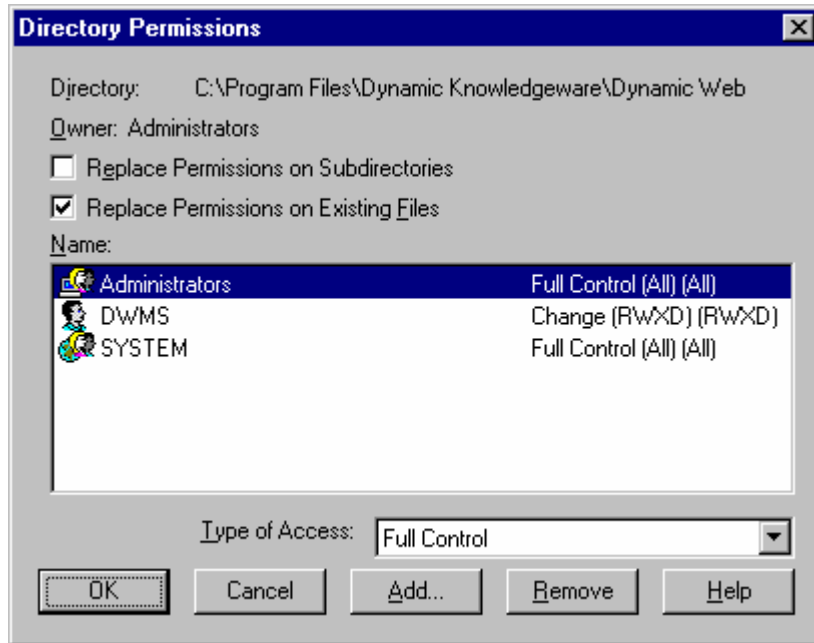


Make sure the Domain selected at the top of the form is the domain on which the “DWMS” anonymous user account is defined.

Select the “DWMS” user from the list. Set the Type of Access to “**Change**” for all three sets of directories and click **Add** to add the “DWMS” user to the list. Press **OK** to now add the DWMS user to the permissions list for the folder.

The final permissions set on the directories and files should look something like the screen below – depending on the accounts your organization has set up to provide access. This is the “minimum” configuration we recommend:





Click **OK** to set the permissions.

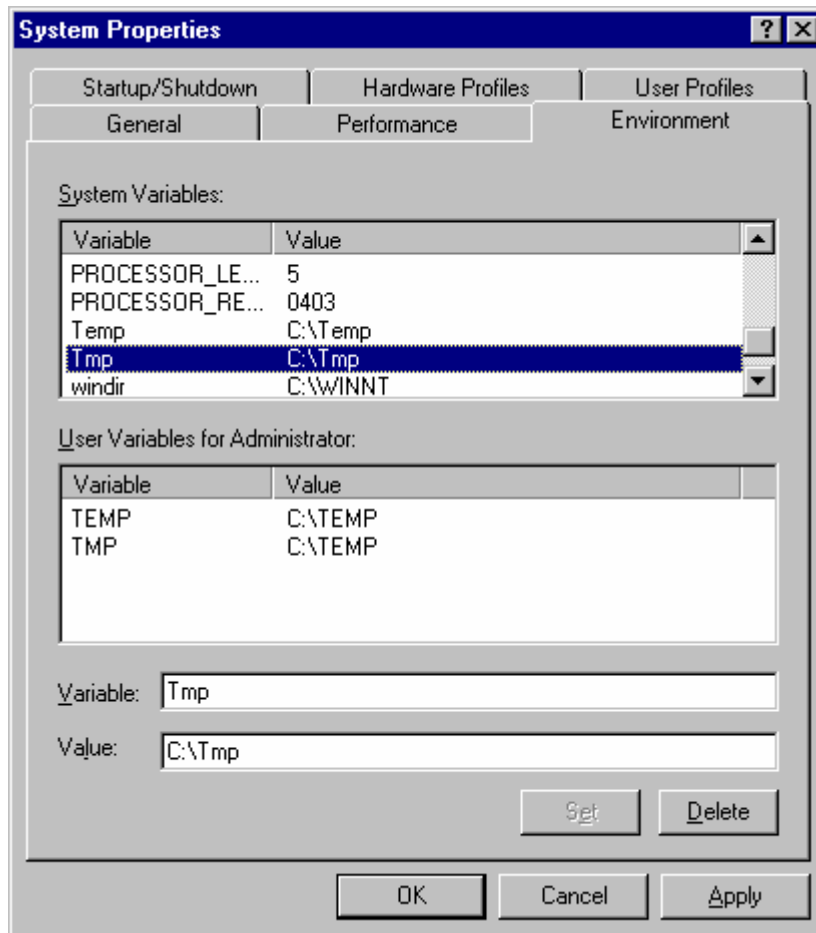
If there is more than one warehouse, repeat for each assign **Change** privileges.

Setting Up the Server Display Property Settings

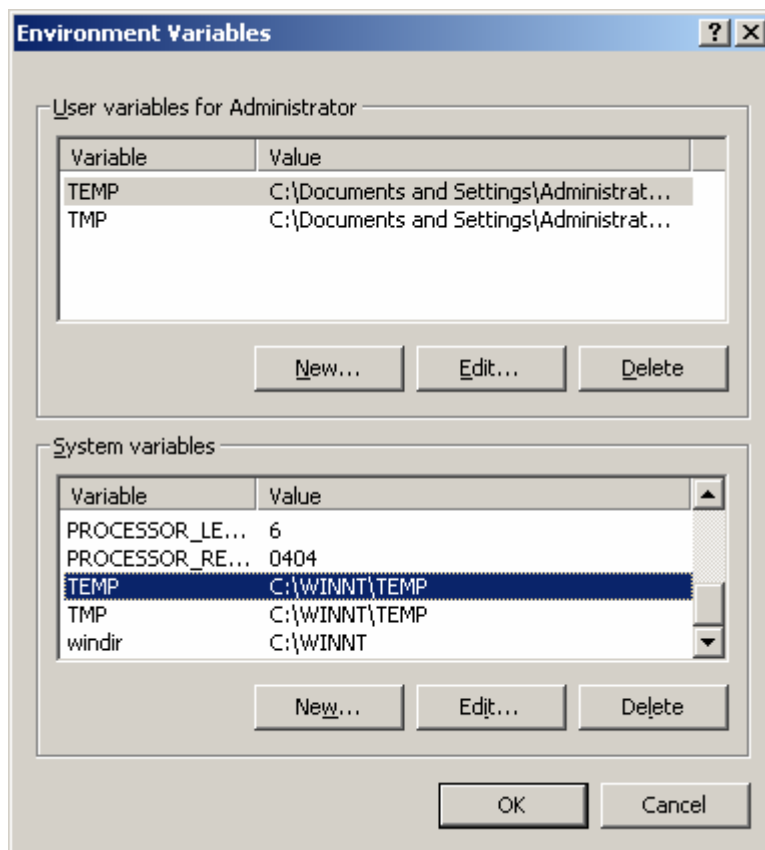
The display property settings of the server will affect the output quality of the map images generated by the server – specifically their colors and fill. You should set the Display Property settings on the server to 65536 colors (High Color 16 Bit) or higher. Do this via the Control Panel / Display / Settings Tab.

Defining a New Location of Temporary System Files (if required)

Some organizations may want to lock out any user account from accessing the WinNT system directory. By default Dynamic Web Maps Server will use this folder for temporary database connection files. To specify a different temporary folder, do the following:

Windows NT Server:

- Go to Control Panel
- Click on System
- Click on Environment Tab
- Select one of the existing System Variables (any one)
- At the bottom of the form type in the Variable name "Tmp"
- On the Value line type in the location of the folder, e.g., "C:\TMP"
- Click on the Set button
- Create another variable called "Temp" in the same way
- Lastly, use Windows Explorer to create the actual temporary folders on the hard drive.

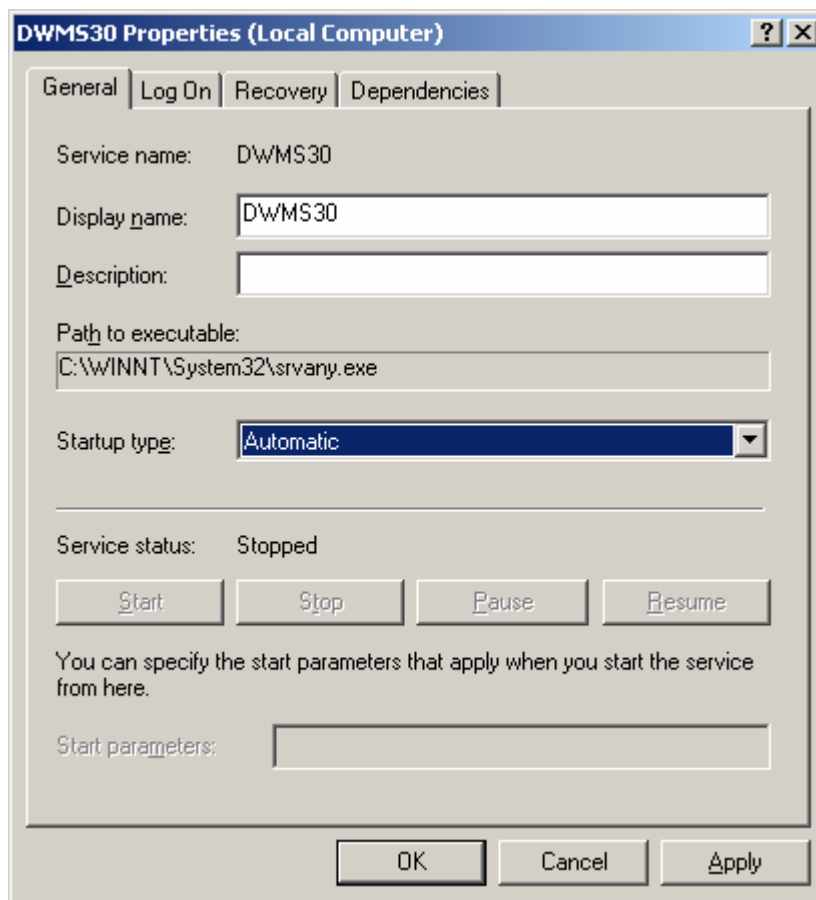
Windows 2000 Server:

- Go to Control Panel
- Click on System
- Click on Advanced Tab
- Click on Environment Variables Button
- At the bottom of the form in the System variables area, click New or Edit buttons and type in or change the Variable Name "Tmp"
- On the Value line type in/change the location of the folder, e.g., "C:\TMP"
- Click on the OK button
- Create / change another variable called "Temp"
- If necessary use Windows Explorer to create the actual temporary folders on the hard drive.

Setting-up the Windows NT/2000 Server Service

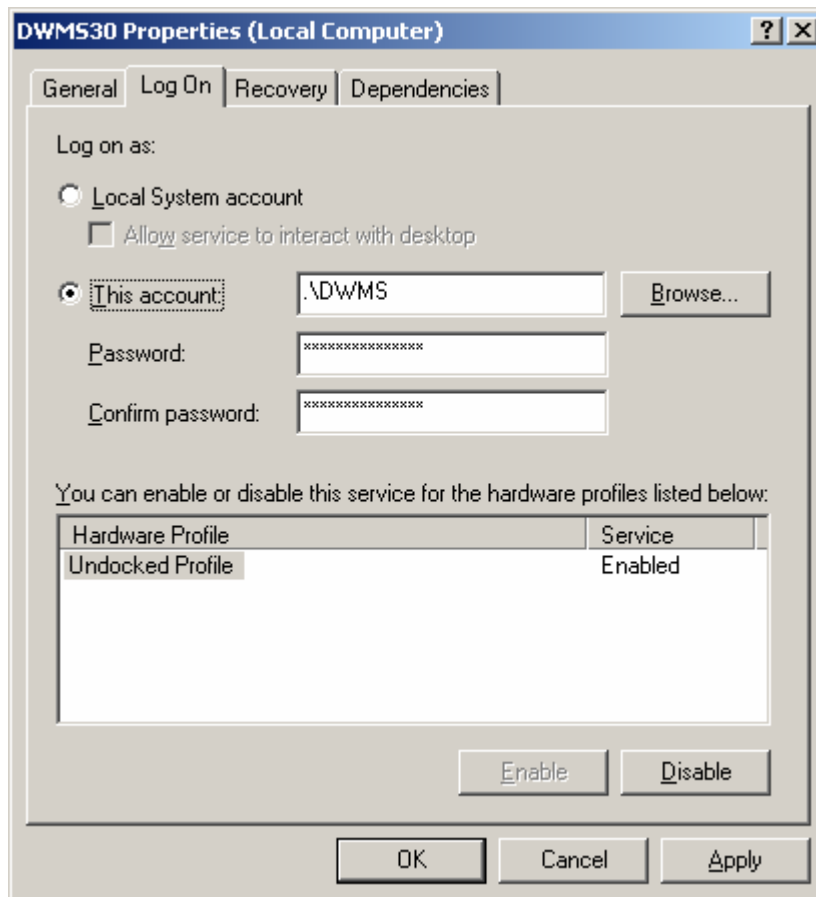
The installation creates a new NT / 2000 Service called “DWMS30”, that will automatically run the Dynamic Web Maps Server for you when the machine is re-booted. The installation creates the Service under the Local System Account and disables it initially. This allows you to set the Service parameters appropriate for your location prior to starting the Service for the first time.

Edit the Service using in Windows NT **Start** → **Settings** → **Control Panel**, double-clicking on the Services icon selecting the “DWMS30” Service and clicking the Startup button or in Windows 2000 **Start** → **Programs** → **Administrative Tools** → **Services** and right-clicking on the DWMS30 service and selecting Properties. You will see the following form:



Set the Startup Type to Automatic to enable the Service to start up when the computer boots.

From the Log On tab, use the “DWMS” User Account you set up earlier. Select ‘This Account’ and then browse to select the account from the list that appears. Make sure to type in the actual account password and confirm it.



When you click OK, the system will give you a message that indicates that the account has been given log on right as a service.

Run Dynamic Web Maps Server for the First Time

Once all the steps outlined in **Installing the Dynamic Web Maps Server** have been completed the Service can be started from the Services window. Click on the “DWMS30” service to highlight it and click the Start icon. Once the Service Status indicates Started, you can close the Services window. Dynamic Web Maps Server will automatically start whenever the server is booted.

Setting Up Dynamic Web Maps on Your Web Site

Defining the Topic Links

Normally, the Topics you publish support a “story” being told in your web site somewhere. You would link from that web page to the Topic directly.

The system generates a unique URL for each Topic. This URL is used as the link from the appropriate web page on the site. To determine what the URLs for the various topics are, there is a web page that the system generates with the complete Topic listing at: “**http://server IP orName/dwms30/default.asp**”. This list provides links to all the topics as well as their individual URLs. To see the topic and get its URL for use in your web page, launch the Topic and then copy its URL.

The topic URL will look something like this:

`http://IP_Address_or_server_name/dwms30/Wias.asp?TopicID=1&WHID=14.`

Launch a New Browser Each Time You Link

Make sure when you do the coding for the link to the Topic on your web page that you launch a new browser whenever you link to a topic. To do so, include “`target='_blank'`” in the “`a href`” code.

Changing the “Look and Feel” of Dynamic Web Maps

There are some elements of the look and feel of the software that can be changed and some that can't. In general, the “.asp” and “.htm” pages in the software can have some changes made, however any updating to the web pages and .asp code to change the look of the frames and pages should only be done by an experienced web developer

Always test changes in both Internet Explorer and Netscape browsers at both 1024x768 and 800x600 screen resolutions. Backup all original files before making changes to them.

All frames and pages can have their look modified except for the map frame (the frame in which the map is generated). The look of this frame is controlled by an application, which cannot be modified. Any changes to the map frame needs to be handled by SKE Inc.

Below are some instructions for modifying the look of the site:

Modifying the Default.asp and the Related Default_Atlas.htm and DisplayTopicList.asp Files

On the web frame page that automatically lists all the Topics (**Default.asp**), there are two distinct frames (there's a third background frame as well called “`filler.htm`”). In general, the use of this page is optional and will probably only be published by you if you are making many changes to the Atlas(es) and want a place on the web site that keeps all the Topics listed and up-to-date.

The “**Default_Atlas.htm**” frame provides an introductory “welcome” message that can easily be modified to suit your organization's needs. A couple of things to keep in mind prior to modifying this frame page:

- The size of the frame is limited programmatically in the default.asp code since in that code the frame does not support scrollbars and its width is predetermined at 232 pixels. Therefore make sure any changes you make enable the entire frame to be viewed in all browsers at 800x600 resolution.
- The frame contains a “Powered by SKE message” and a link to our web site. SKE would appreciate it if that message and link were not removed.

The “**DisplayTopicList.asp**” frame page lists the available topics in each of the Atlases published via the Warehouse Manager. Although things like font type, size, and colors can be changed, SKE recommends that you not modify this frame’s coding. Please contact SKE Inc. for support if changes are required.

Modifying the Wias.asp Frame Page and its Components: Header.htm Frame, the EngToolbar.asp Frame and the SelectTopic.asp Frame

The “**Wias.asp**” file governs the size and placement of the various frames that are displayed with the map. Changes to this page should be limited to changes such as modifying the frame height or width. Contact SKE for support if substantive changes are required.

The “**Header.htm**” frame appears above the map function buttons (the EngToolbar.html file) and the map frame. The Header.htm frame does not provide any system functionality however, it can be used for a number of things – such as a place for banner advertisement, a corporate logo, and/or a message. The Header.htm frame’s height is governed by the WIAS.asp file. Make sure the height is properly set in the Wias.asp file to account for any images used in the Header.htm file. Any significant changes to the height of the header.htm should be tested in all browsers at various screen resolutions.

As a design consideration, try to keep any images used in the Header.hm less than 45 pixels high.

The “**EngToolbar.asp**” frame page contains the code for all the function buttons and their scripted calls to the server. Changes to this page can affect the system functionality. Please contact SKE Inc. for support if changes are required.

The “**SelectTopic.asp**” page handles the map size function and lists the available map layers in the topic. Changes to this page can affect the system functionality. Please contact SKE Inc. for support if changes are required.

The map frame is generated by the system and no changes can be made to its look and feel.

Checking Server Performance

You can get a running tally of the number of web requests received since the server was started and the average time (in seconds) each request has taken to process by issuing the following URL request:

`http://<domain_for_your_web_server>/dwms30/skewms.exe?cmd=WebServerStatistics`

The server will display the following information:

MAP Server Statistics:

Total Requests Processed = 3

Average Request Processing Time = 0.908 seconds

By reviewing the average time to process a request you can determine if your server can handle the expected load before it starts to send 'Server is Busy' messages back to the clients.