WINSPC®
STATISTICAL PROCESS CONTROL

Installation and Configuration Guide

DataNet
QUALITY SYSTEMS

Copyright © 2009 DataNet Quality Systems. All rights reserved. Printed in U.S.A.

WinSPC and QualTrend are registered trademarks of DataNet Quality Systems. All other trademarks or registered trademarks are the property of their respective owners.

For more information regarding DataNet Quality Systems, its products or services, please contact:

DataNet Quality Systems

24567 Northwestern Highway

Southfield, MI 48075 USA

Tel: (248) 357-2200

Fax: (248) 357-4933

www.winspc.com

Products and specifications are subject to change without notice.

Document release 7.2E

INTRODUCTION 1

CHAPTER 1: INTERBASE 6 3

ASSUMPTIONS 3

SERVER CONFIGURATION 4

Create and Share a Database File Folder 4
Register a Server 5
Create a Database 7
Create a Server Login 9

FIRST CLIENT INSTALL AND CONFIGURATION (INITIAL STEPS) 12

CHAPTER 2: MICROSOFT SQL SERVER 2000 25

ASSUMPTIONS 25

SERVER CONFIGURATION 27

Establish a Server Connection 27
Create a Database 29
Create a Server Login 31

FIRST CLIENT INSTALL AND CONFIGURATION (INITIAL STEPS) 39

CHAPTER 3: MICROSOFT SQL SERVER 2005 & 2005 EXPRESS 51

ASSUMPTIONS 51

SERVER CONFIGURATION 53

Establish a Server Connection 53
Create a Database 55
Create a Server Login 58
Configure the SQL Server Browser Service and Enable a Network Protocol 62

FIRST CLIENT INSTALL AND CONFIGURATION (INITIAL STEPS) 71

CHAPTER 4: ORACLE9*i* 83

ASSUMPTIONS 83

SERVER CONFIGURATION 85

Create a Tablespace 85
Create a Server Login 94
Set the Number of Open Cursors 99
Test the Local Net Service Name 101

FIRST CLIENT INSTALL AND CONFIGURATION (INITIAL STEPS) **108**

CHAPTER 5: ORACLE 10*g* **119**

ASSUMPTIONS **119**

SERVER CONFIGURATION **121**

Create a Tablespace 121
Create a Server Login 130
Set the Number of Open Cursors 135
Test the Local Net Service Name 137

FIRST CLIENT INSTALL AND CONFIGURATION (INITIAL STEPS) **144**

CHAPTER 6: FIRST CLIENT CONFIGURATION (FINAL STEPS) **155**

CHAPTER 7: ADDITIONAL CLIENT INSTALLS AND CONFIGURATIONS **175**

APPENDIX A: WINSPC SETUP PROMPTS **185**

APPENDIX B: INSTALLING NJWIN FOR AN ASIAN LANGUAGE **195**

APPENDIX C: WINSPC SECURITY FOR WORKGROUPS **203**

APPENDIX D: GRANTING SHARE AND SECURITY PERMISSIONS **207**

APPENDIX E: ADDING USERS TO A USER GROUP **211**

APPENDIX F: LAUNCHING AND LOGGING INTO WINSPC **213**

APPENDIX G: HARDWARE REQUIREMENTS AND RECOMMENDED PLATFORMS **215**

APPENDIX H: SPECIAL CONSIDERATIONS REGARDING VISTA BUSINESS **221**

INTRODUCTION

This guide is for individuals assigned the tasks of configuring a database for a WinSPC implementation, installing WinSPC and configuring WinSPC. It consists of procedures to accomplish these tasks for each of the following platforms:

- InterBase 6
- Microsoft SQL Server 2000
- Microsoft SQL Server 2005 Express
- Microsoft SQL Server 2005
- Oracle9*i*
- Oracle 10*g*

(Microsoft SQL Server 2005 Express is a free database server and may be downloaded from www.winspc.com.)

WinSPC is certified to run both in a traditional client/server environment and a Microsoft Terminal Services environment. The content in this guide applies to both except where marked by the *Terminal Services* marker, in which case the content applies uniquely to a Microsoft Terminal Services environment. The first appearance of the *Terminal Services* marker is to the right of the following paragraph.

Terminal Services

When an implementation involves a Microsoft Terminal Services environment, WinSPC must be installed on the Microsoft Terminal Services server. If the implementation does not also involve a client/server environment, make the Microsoft Terminal Services server your first client. *First client* simply refers to the first computer on which WinSPC is installed. If the implementation also involves a client/server environment, it does not matter whether you make the

Microsoft Terminal Services server the first client or an additional client. *Additional client* means any computer on which WinSPC is installed other than the first client. Electing to make the Microsoft Terminal Services server the first client means that the procedure for installing WinSPC on the Microsoft Terminal Services server is the procedure detailed in *Phase 2* of the chapter specific to the database server being used in your implementation. Electing to make the Microsoft Terminal Services server an additional client means that the procedure for installing WinSPC on the Microsoft Terminal Services server is the procedure detailed in **Chapter 7: Additional Client Installs and Configurations**.

For WinSPC's hardware requirements and recommended platforms, see **Appendix G: Hardware Requirements and Recommended Platforms**.

DataNet Quality Systems wants your installation and configuration to be a positive experience. Please do not hesitate to contact our Product Support Help Desk at (248)-447-0140 if you have questions concerning any of the information in this guide.

CHAPTER 1: INTERBASE 6

ASSUMPTIONS

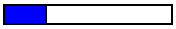
The instructions in this chapter are based on the following assumptions:

- InterBase 6 Server is installed and running on your database server.
- InterBase 6 Client is installed on your database server.
- The default values presented by InterBase 6 Server and InterBase 6 Client during the installation process were accepted without modification.
- Any firewalls between your database server and the client machines to be used for WinSPC are properly configured to permit database traffic.
- For implementations employing a Microsoft Terminal Services environment, Microsoft Terminal Services is properly installed and configured on the server designated as your Microsoft Terminal Services server.

- The operating system of your database server machine is Windows 2003 Server.
- The operating system of the client machines to be used for WinSPC is Windows XP Pro.

NOTE: If a default value was modified during the installation of InterBase 6 or an operating system is different from that stated here, adapt the instructions in this guide as needed to accommodate the modified value or differing operating system.

Phase 1 of 4 **SERVER CONFIGURATION**



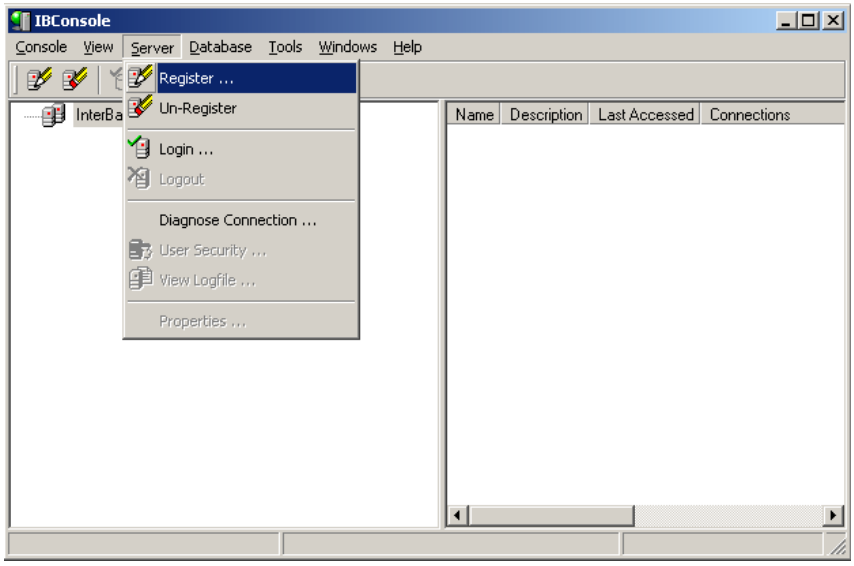
Create and Share a Database File Folder

1. On the InterBase 6 Server machine, create a folder in which the database file for WinSPC can be saved. (The recommended path and name of this folder is: **C:\IBData**.)
2. Share this folder and grant domain administrators a minimum of **Change** *share* permissions and **Modify** *security* permissions to it. (For a procedure on granting *share* or *security* permissions, see **Appendix D: Granting Share and Security Permissions.)**

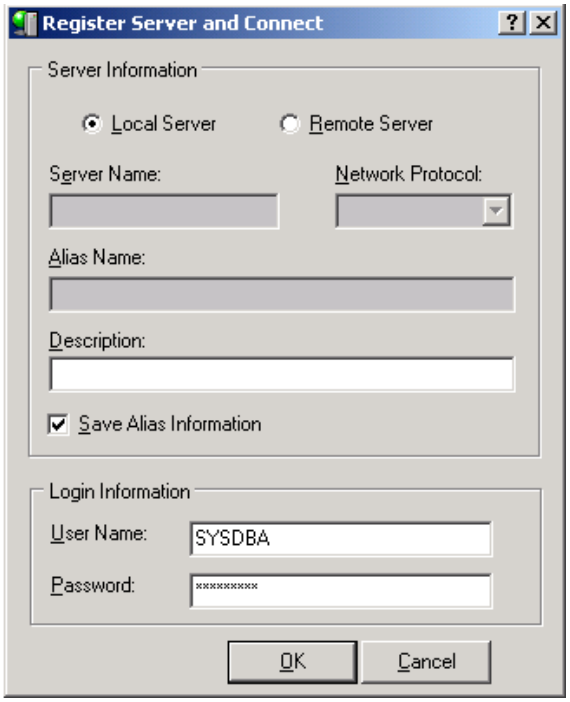
   NOTE: If your WinSPC implementation is part of a workgroup rather than a domain, grant these **Change** and **Modify** permissions to the local administrator on the InterBase 6 Server machine who will configure InterBase 6 and the local administrator who will be install and configure WinSPC on the first WinSPC client machine. (See the **First Client Install and Configuration (Initial Steps)** section of this chapter for a definition of the first WinSPC client machine.)

Register a Server

1. From the InterBase 6 Server machine, click **Start > All Programs > InterBase > IBConsole**.
2. In the **IBConsole** window that appears, from the **Server** menu, select **Register**.

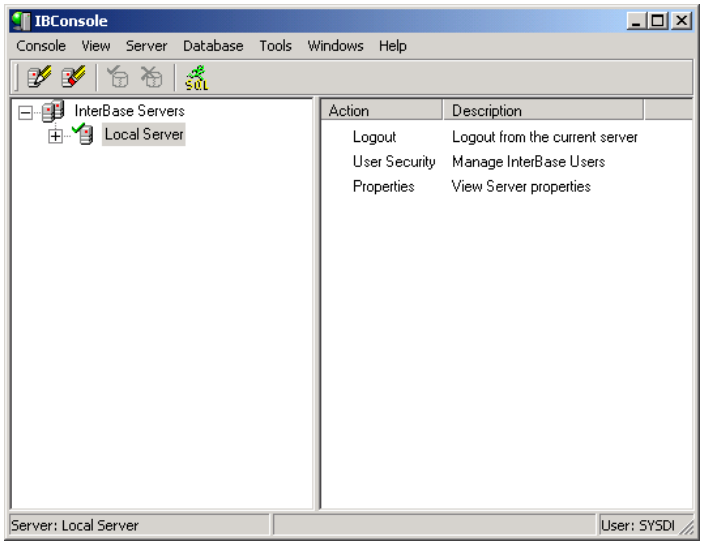


3. In the **Register Server and Connect** window that is displayed:
   a. At **User Name**, enter **SYSDBA**.
   b. At **Password**, enter **masterkey**.
   c. Click **OK**.



NOTE: The **masterkey** password entered in step b above is InterBase's default password. For security reasons, it is recommended you change this password.

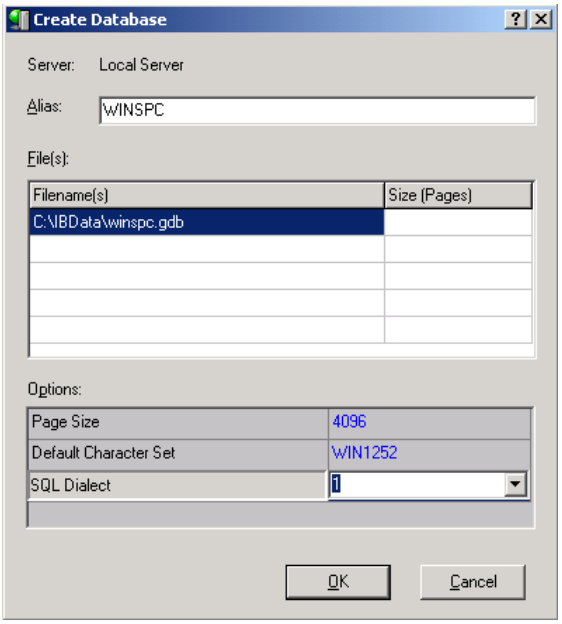
This closes the **Register Server and Connect** dialog box and lists **Local Server** in the **IBConsole** window.



Create a Database

1. In the **IBConsole** window, from the **Database** menu, select **Create Database**.

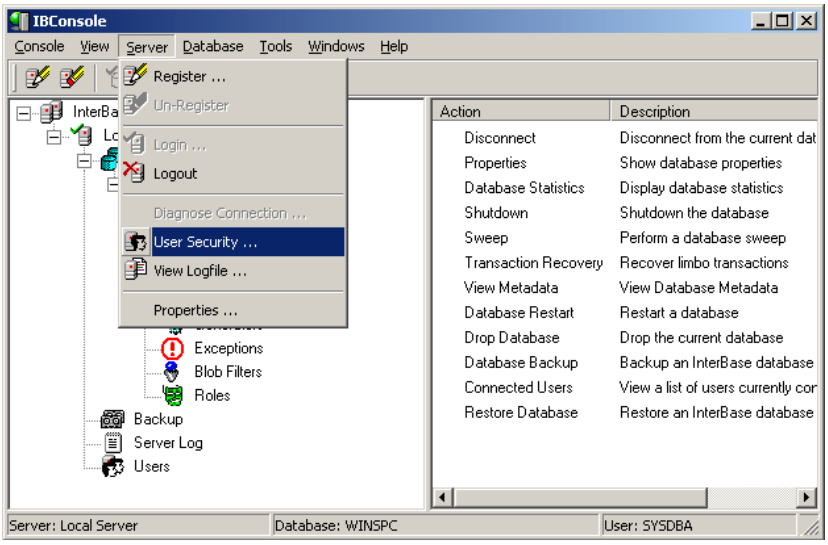
2. In the **Create Database** dialog box that is displayed:
   a. At **Alias**, create and enter a name for the WinSPC database. (The recommended database name is **WINSPC**.)
   b. In the first empty **Filenames(s)** cell, create the filename for the database. This filename is composed of two parts separated by a backslash: the path of the folder created in step 1 of this chapter's **Create and Share a Database File Folder** section and the newly created alias with a .gdb extension (e.g. C:\IBData\winspc.gdb).
   c. At **Default Character Set**, select **Win1252**.
   d. At **SQL Dialect**, select **1**.
   e. Click **OK**.



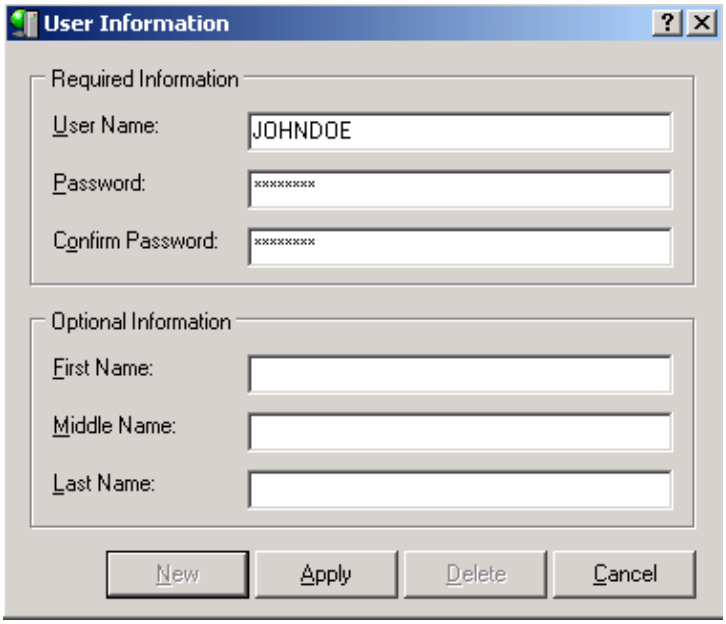
This creates the database and displays the database alias in the **IBConsole** window.

Create a Server Login

1. With the newly created database highlighted in the **IBConsole** window, from the **Server** menu, select **User Security**.



2. In the **User Information** dialog box that appears:
   a. Click **New**.
   b. At **User Name**, create and enter a user name for the login. (The recommended user name is **JOHNDOE**.)
   c. At **Password**, create and enter a sufficiently strong password for the login.
   d. At **Confirm Password**, reenter the password.
   e. Click **Apply**. This adds the new user.
   f. Click **Close**.



NOTE: The user name and password entered here will be used by InterBase 6 to authentic WinSPC client machines and allow authenticated machines access to the WinSPC database. This user name and password combination is not directly used by WinSPC users. WinSPC users will, later, be assigned individual user IDs and passwords. They will use these individual user IDs and passwords to log into the WinSPC application on WinSPC client machines.

3. From the **IBConsole** window, click **Console > Exit**.

THIS COMPLETES PHASE 1 OF 4.

GO TO THE NEXT PAGE AND COMPLETE PHASE 2.

Phase 2 of 4 **FIRST CLIENT INSTALL AND CONFIGURATION (INITIAL STEPS)**

This section concerns the installation and configuration of WinSPC on the first WinSPC client machine. The first WinSPC client machine simply refers to the first computer on which you want to install WinSPC. This computer can be any machine on your network.

Terminal Services

If your implementation employs Microsoft Terminal Services, see the discussion on page 1 of this guide for direction on whether to make your first client the Microsoft Terminal Services server or another computer.

1. Create a folder on a network file server accessible by all client machines that will run WinSPC. This folder's primary purpose is to facilitate the installation and configuration of WinSPC on all clients other than the first client. (The recommended name for this folder is **WinSPCRemote**.)
2. Share this folder and grant domain administrators a minimum of **Change** *share* permissions and **Modify** *security* permissions to it. (For a procedure on granting *share* or *security* permissions, see **Appendix D: Granting Share and Security Permissions.**)

   NOTE: If your WinSPC implementation is part of a workgroup rather than a domain, grant these **Change** and **Modify** permissions to the local administrator who will install and configure WinSPC on the first WinSPC client machine.
3. Log into Windows on the first WinSPC client machine as a domain administrator who also has local administrator privileges.

   NOTE: If the first WinSPC client machine is part of a workgroup instead of a domain, log in as a local administrator.

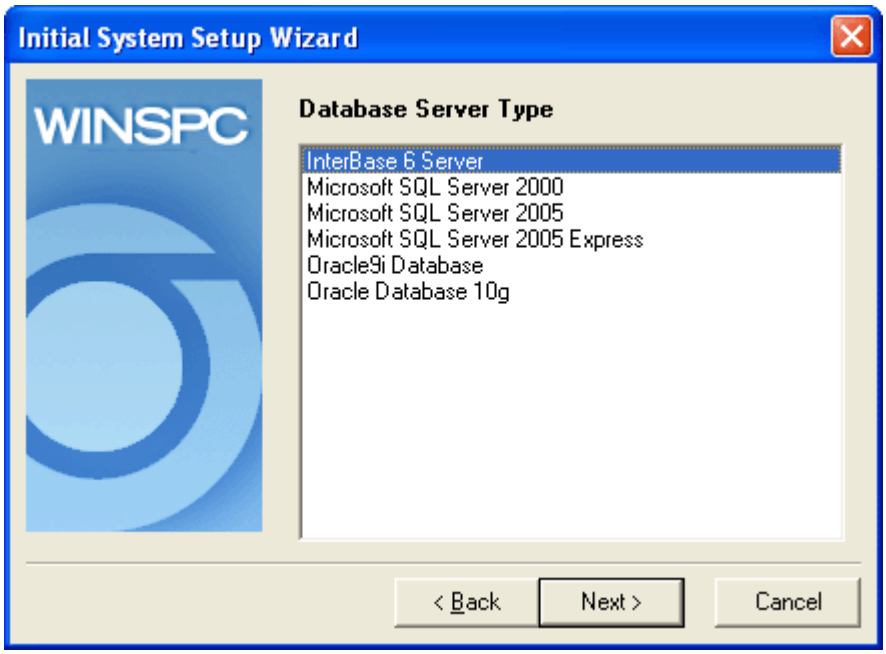
4. Insert the WinSPC CD into the first WinSPC client's CD-ROM drive. If autorun is enabled on the client, the CD will start automatically. If autorun is not enabled:
   a. Click **Start > My Computer.**
   b. In the **My Computer** dialog box, double-click your CD-ROM drive.
   c. When the list of files appears, double-click **Setup.exe**.
5. When the **WinSPC Setup** screen appears, click **Install WinSPC**.
6. Install WinSPC by following the setup prompts. During this installation, after the step when programs files are copied, close the folder that automatically opens. When the **Setup Complete** screen appears, click **Finish**.

   NOTE: The setup prompts are intended to be self-explanatory. Consequently, they are not detailed here. If you have a question about a prompt or want to be directed step-by-step through the setup wizard, see **Appendix A: WinSPC Setup Prompts**.
7. Complete **Appendix B: Installing NJWin for an Asian Language** if the first client machine will need to run WinSPC in an Asian language or you would like to run the Initial System Setup Wizard in an Asian language. (The Initial System Setup Wizard is the tool you will use next in this first client configuration process.)
8. Exit the **WinSPC Setup** screen by clicking the **X** in the upper right corner.
9. Remove the WinSPC CD from the CD-ROM drive.

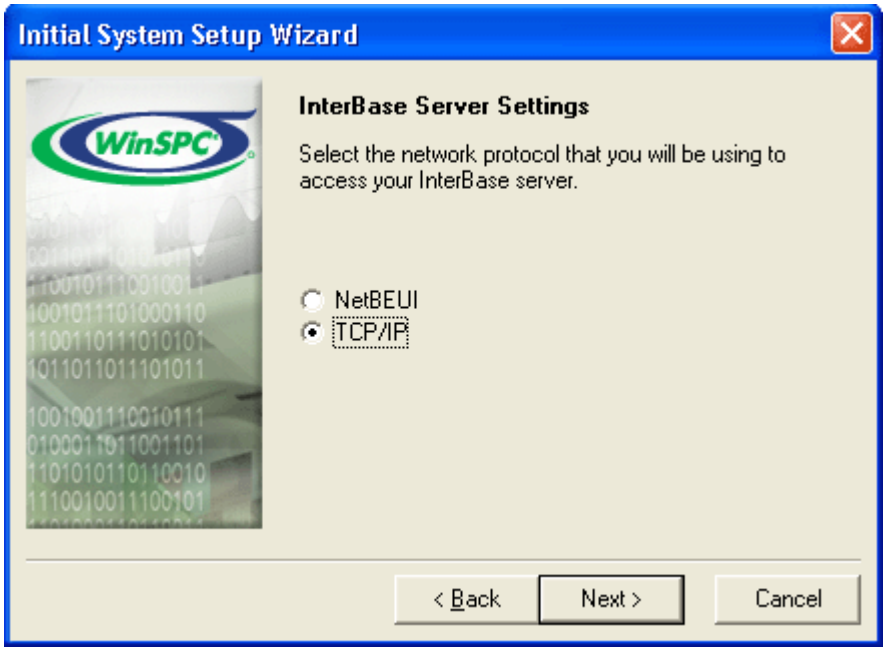
10. Run **WinSPC**. The default path for doing this is **Start > All Programs > WinSPC > WinSPC CS.** This launches the Initial System Setup Wizard.
11. On the **Language** screen, from the **Select language** list, choose a language and click **Next.**

NOTE: The language selected here becomes the language in which the remainder of the Initial System Setup Wizard will be run. It also becomes the system-wide default language for WinSPC. (This default language can be changed at any time following the completion of the Initial System Setup Wizard. See the Help in WinSPC for information on default languages once the configuration of the first WinSPC client is complete.)

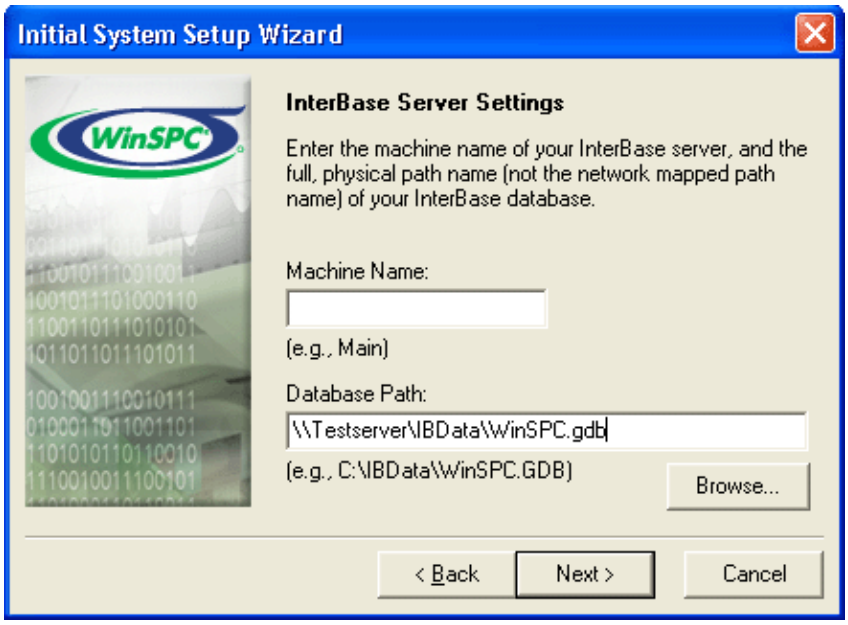
12. On the **Database Server Type** screen, select **InterBase 6 Server** and click **Next.** (Notice this screen is displayed in the language selected during the preceding step.)



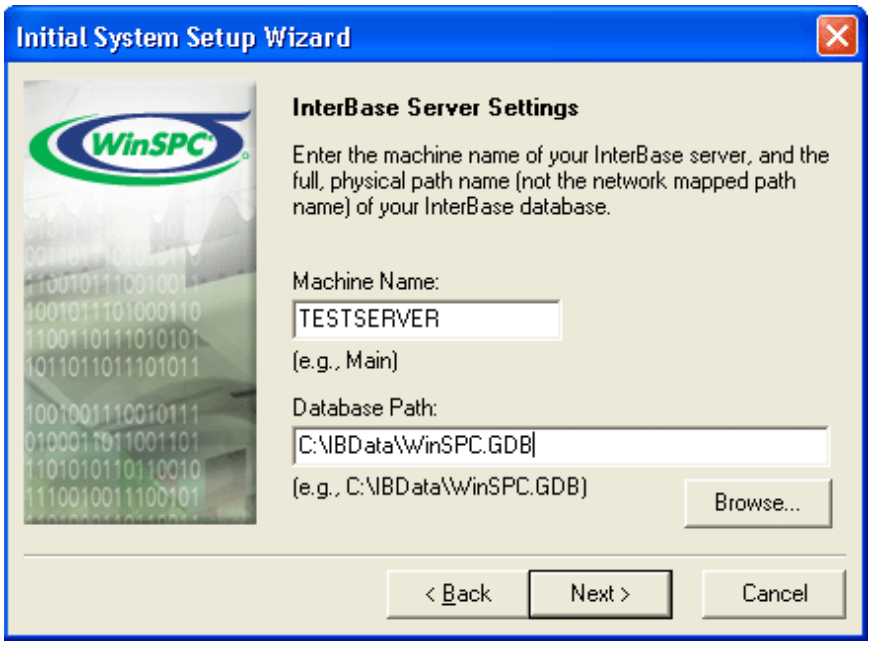
13. On the **InterBase Server Settings** screen, if the network protocol to be used for communication with your InterBase 6 Server machine is NetBEUI, select **NetBEUI**, click **Next** and go to step 14. If the protocol is TCP/IP**,** select **TCP/IP**, click **Next** and go to step 15.



14. If **NetBEUI** was selected in step 13, on the next **InterBase Server Settings** screen:
    a. Leave the **Machine Name** field blank.
    b. At **Database Path**, click **Browse** and, in the **Open** screen that appears, navigate to and double-click the filename created in step 2b of this chapter's **Create a Database** section.
    c. Click **Next**.

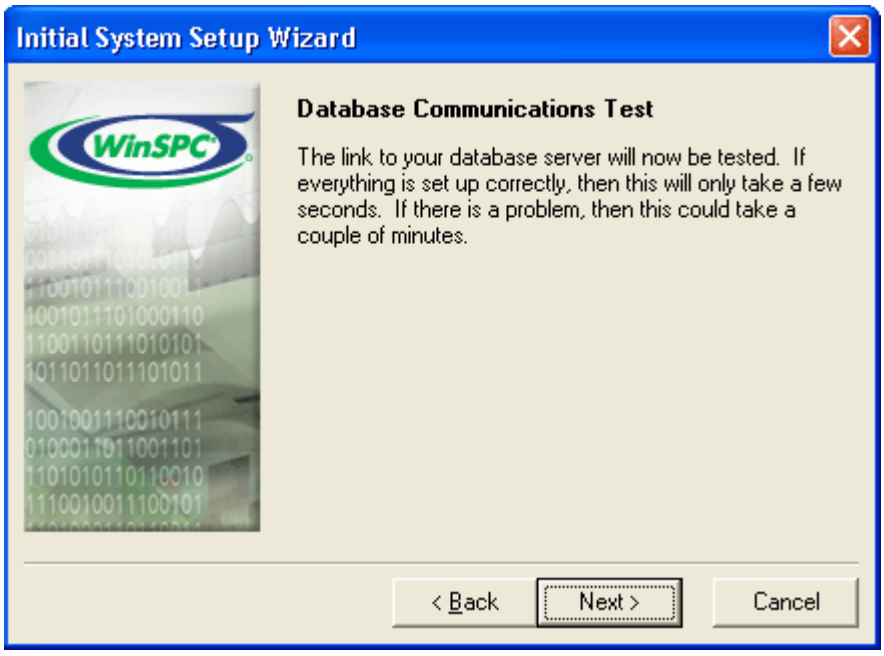


15. If **TCP/IP** was selected in step 13, on the next **InterBase Server Settings** screen:
    a. At **Machine Name**, enter the name of your InterBase 6 Server machine.
    b. At **Database Path**, enter the database path and filename created in step 2b of this chapter's **Create a Database** section.
    c. Click **Next**.



16. On the **Database Server Log In** screen, enter the server **User Name** and **Password** created in this chapter's **Create a Server Login** section and click **Next**.

17. On the **Database Communications Test** screen, click **Next.**

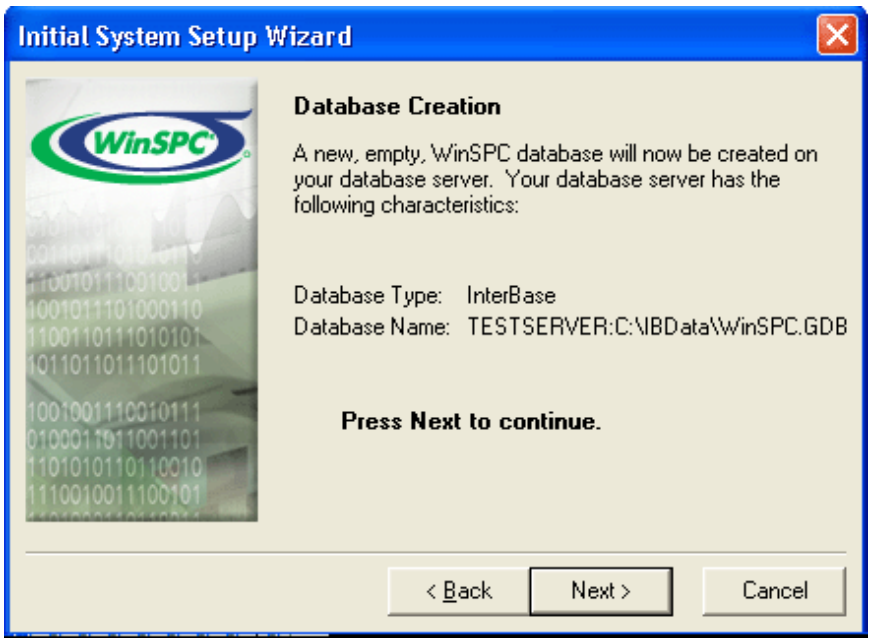


NOTE: In the event the test fails:

- If the error message displayed reads **Unknown database. Unable to complete network request to host…**, click the **Back** button three times and reenter the machine name, ensuring you have the correct name and that it is spelled correctly. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.

- If the error message displayed reads **Unknown database. I/O error for file…**, click the **Back** button three times and reenter the database path, ensuring you have the correct path and that it is spelled correctly. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.
- If the error message reads **Unknown database. Your user name and password are not defined…**, click the **Back** button twice and reenter the server user name and password, ensuring you have the correct user name and password and that these are spelled correctly. Also, since passwords are case sensitive, ensure the appropriate capitalization is used for the password. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.

18. On the **Database Creation** screen, click **Next**. This creates the WinSPC schema within the WinSPC database.



19. If you selected a language other than English in step 11 of this section, an **Add Language** screen appears once the WinSPC schema is created. In this case:

    a. Insert the language disk for the selected language into your floppy drive and click the **OK** button.

    b. In the message asking if you want to proceed with the addition of the detected language, click **OK**.

    c. If a message indicating the detected language has already been installed appears, click **OK**.

    d. Allow the **Adding New Language** progress bar to complete.

    e. When the **You may now select the desired language in the System Settings, Station Setup, or User Setup** message appears, click **OK**.

    f. If the **Add Language** screen reappears, click **Cancel**.

    g. Remove the language disk from the floppy drive.

    NOTE: Language disks are included in your WinSPC materials. If you didn't order a language disk and, consequently, did not receive one, click the **Cancel** button and complete the Initial System Setup Wizard without adding the language. Later, you can order the language disk and, once it arrives, add the language using the **Add Language** option on the **Administrator** window's **Tools** menu in WinSPC. Until the language is added, you'll be restricted to running WinSPC in English. (The remainder of the Initial System Setup Wizard continues to run in the selected language whether or not a language is added from a language disk.)

THIS COMPLETES PHASE 2 OF 4.

GO TO **CHAPTER 6: FIRST CLIENT CONFIGURATION (FINAL STEPS)** AND COMPLETE PHASE 3.

CHAPTER 2: MICROSOFT SQL SERVER 2000

ASSUMPTIONS

The instructions in this chapter are based on the following assumptions:

- The **Default** instance of the Microsoft SQL Server 2000 database server software is installed and running on your database server machine and you have been authorized to use this instance for your WinSPC implementation.
- During the installation of this **Default** instance, the setup type specified was **Typical** and the authentication mode selected was **Mixed Mode** (**Windows Authentication and SQL Server Authentication**). (WinSPC will not function if the default **Windows Authentication Mode** was accepted.)
- Microsoft SQL Server 2000 client tools are installed on your database server.
- Microsoft SQL Server 2000 Service Pack 3a is installed on your database server. (During the installation of this service pack, the **Mixed Mode** of authentication was selected.)
- Other than the **Mixed Mode** of authentication, the default values presented by Microsoft SQL Server 2000 during the installation process were accepted without modification.
- Any firewalls between your database server and the client machines to be used for WinSPC are properly configured to permit database traffic.
- For implementations employing a Microsoft Terminal Services environment, Microsoft Terminal Services is properly installed and configured on the server designated as your Microsoft Terminal Services server.

- The operating system of your database server machine is Windows 2003 Server.
- The operating system of the client machines to be used for WinSPC is Windows XP Pro.

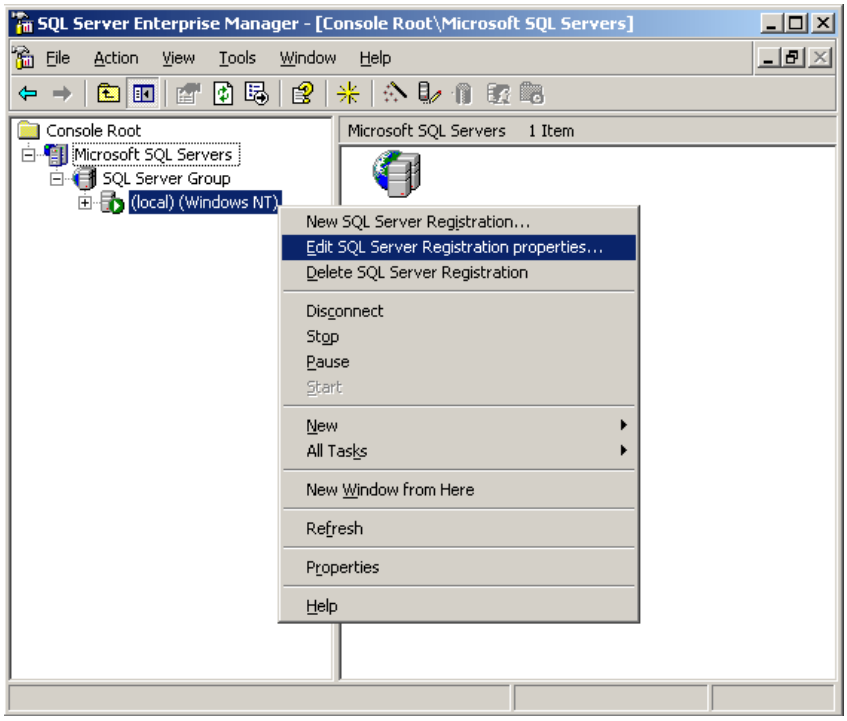
NOTE: If a default value was modified during the installation of Microsoft SQL Server 2000 or an operating system is different from that stated here, adapt the instructions in this guide as needed to accommodate the modified value or differing operating system.

SERVER CONFIGURATION

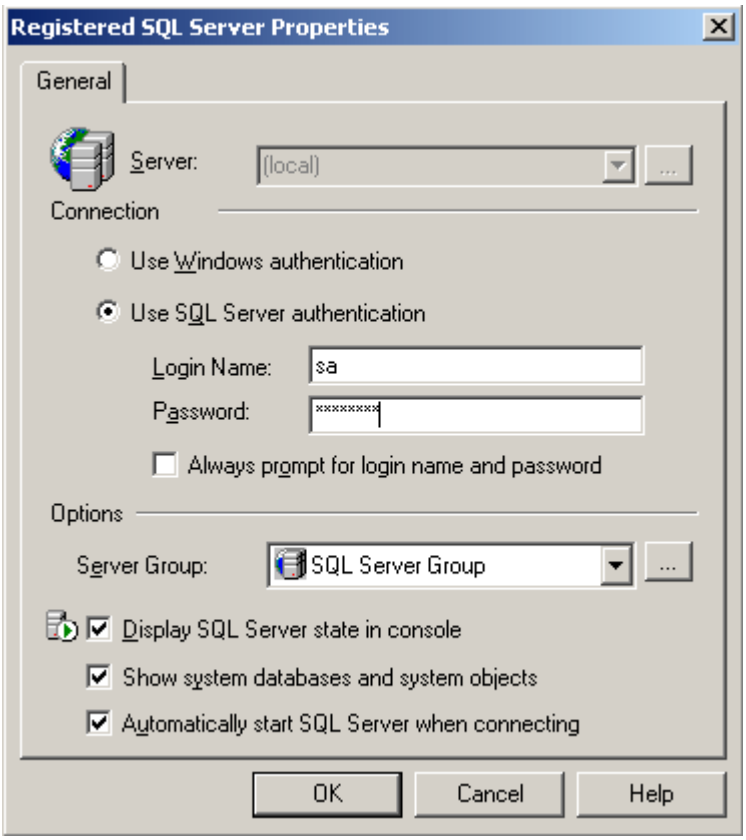
Phase 1 of 4

Establish a Server Connection

1. On the database server, click **Start > All Programs > Microsoft SQL Server > Enterprise Manager**.
2. In the left pane of the **SQL Server Enterprise Manager** that opens, expand **Microsoft SQL Servers > SQL Server Group**, right-click **(LOCAL) (Windows NT)** and select **Edit SQL Server Registration properties**.

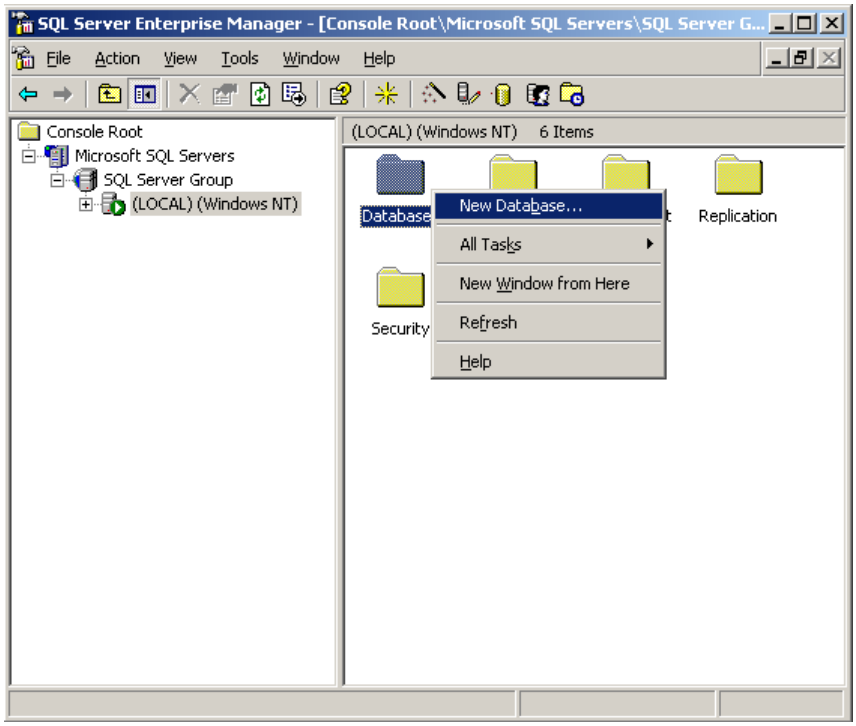


3. In the **Registered SQL Server Properties** dialog box:
   a. Under **Connection,** select **Use SQL Server authentication**.
   b. At **Login Name**, enter **sa.**
   c. At **Password,** enter the SQL Server authentication password created during the installation of Microsoft SQL Server 2000.
   d. Click **OK**. This establishes a connection to the server and closes the **Registered SQL Server Properties** dialog box.

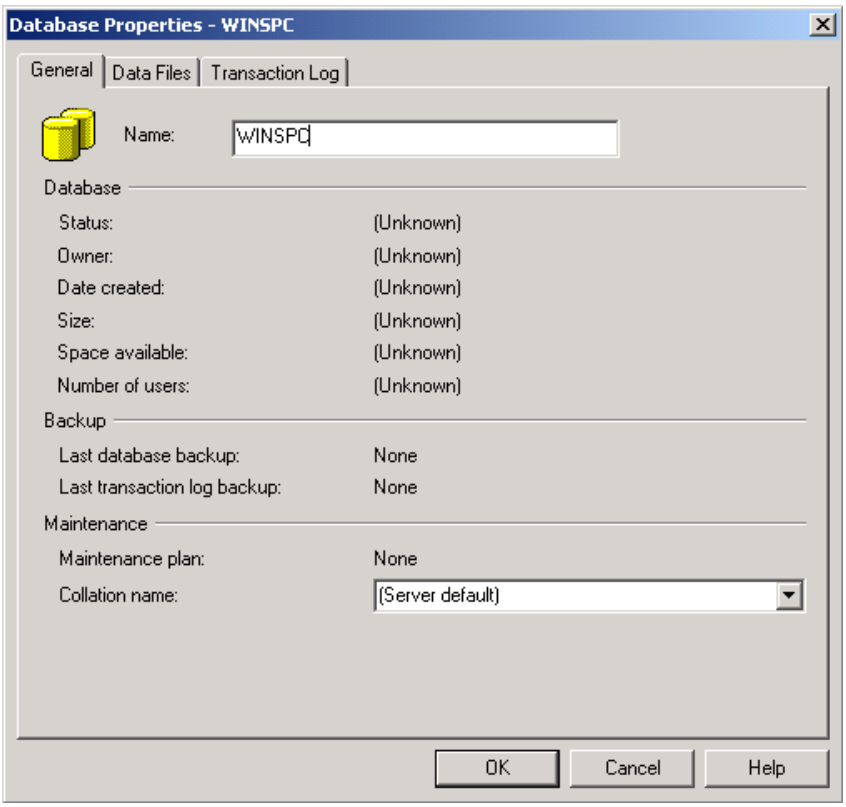


Create a Database

1. In the right pane of the **SQL Server Enterprise Manager**, right-click the **Databases** folder and, from the shortcut menu, select **New Database**.

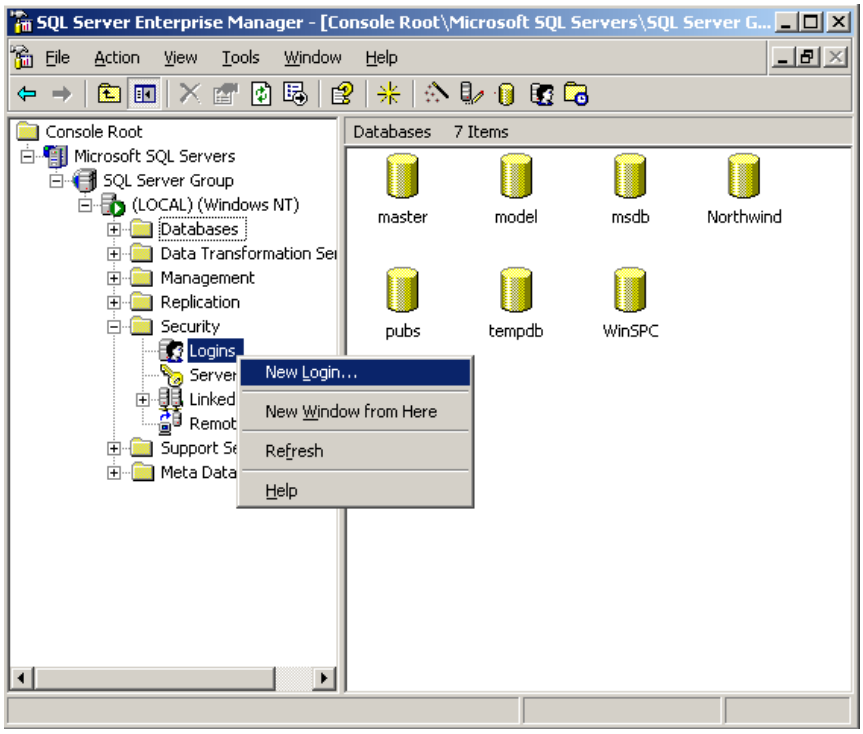


2. In the **Database Properties** dialog box that is displayed, at **Name**, create and enter a name for the database and click **OK**. (The recommended name is **WINSPC**.)



Create a Server Login

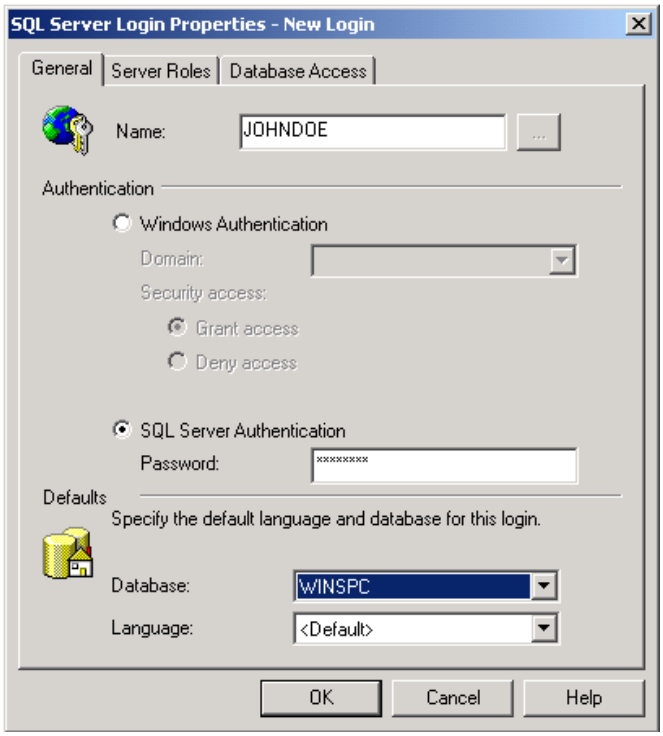
1. In the left pane of the **SQL Server Enterprise Manager**, under the **(LOCAL) (Windows NT)** server, expand **Security**, right-click **Logins** and, from the shortcut menu, select **New Login.**



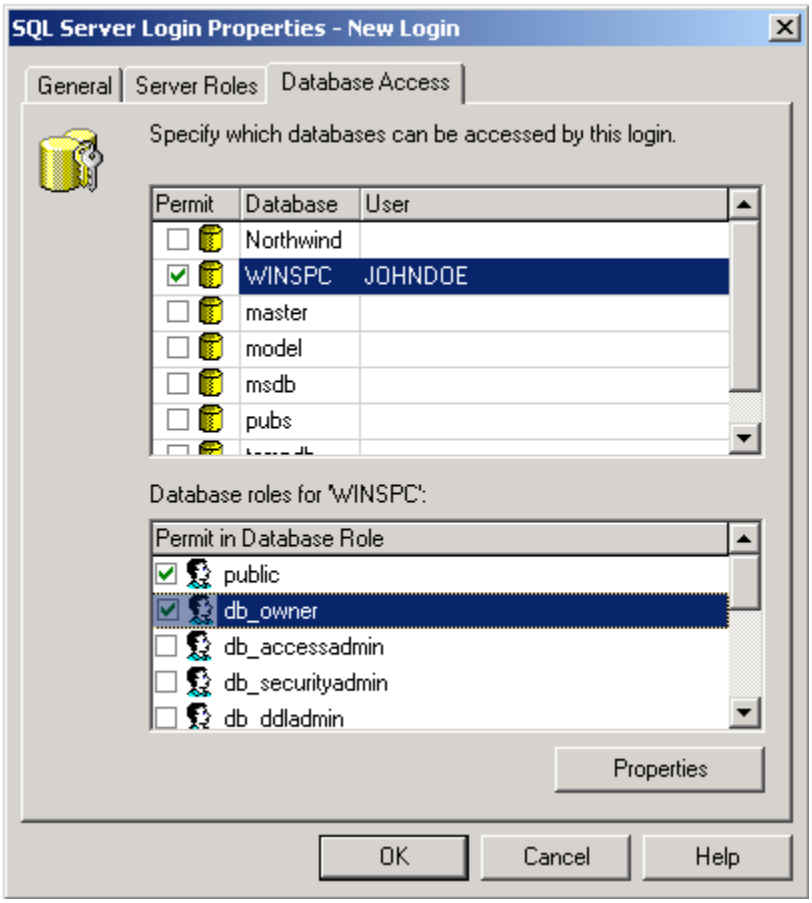
2. In the **SQL Server Login Properties - New Login** dialog box, on the **General** tab:
   a. At **Name**, create and enter a name for the login. (The recommended user name is **JOHNDOE**.)
   b. Under **Authentication**, select **SQL Server authentication**.
   c. At **Password**, create and enter a sufficiently strong password for the login.

   NOTE: The user name and password entered here will be used by Microsoft SQL Server 2000 to authentic WinSPC client machines and allow authenticated machines access to the WinSPC database. This user name and password combination is not directly used by WinSPC users. WinSPC users will, later, be assigned individual user IDs and passwords. They will use these individual user IDs and passwords to log into the WinSPC application on WinSPC client machines.

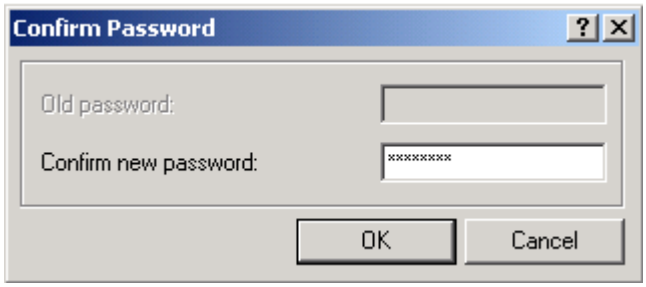
d. Under **Defaults**, at **Database**, select **WinSPC**.



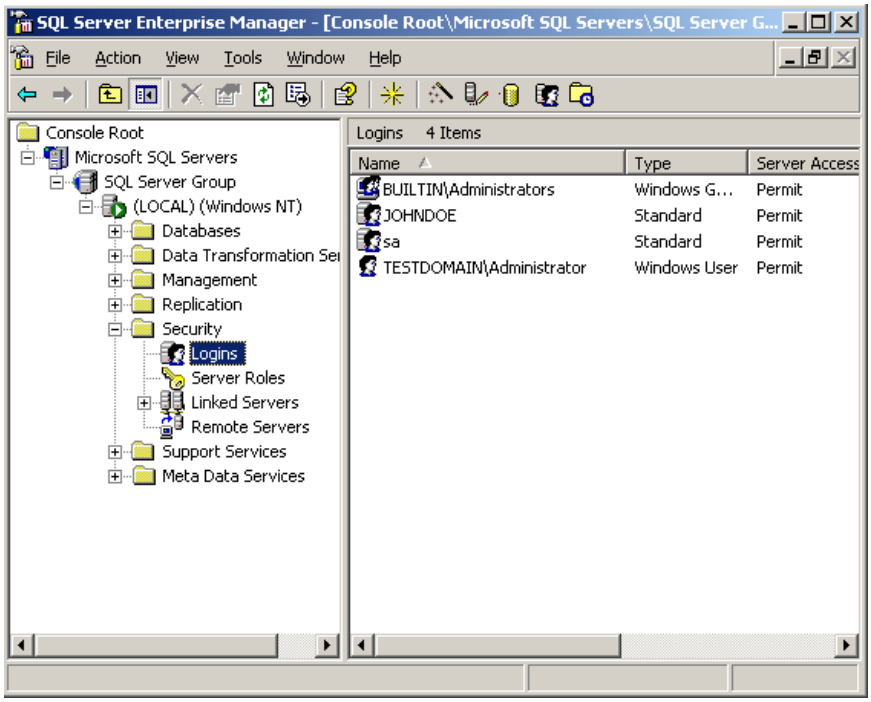
3. Without clicking **OK**, click the **Database Access** tab and on this tab:
   a. In the upper pane, check the check box for the **WinSPC** database.
   b. In the lower pane, check the check box for the **db_owner** role.
   c. Click **OK**.



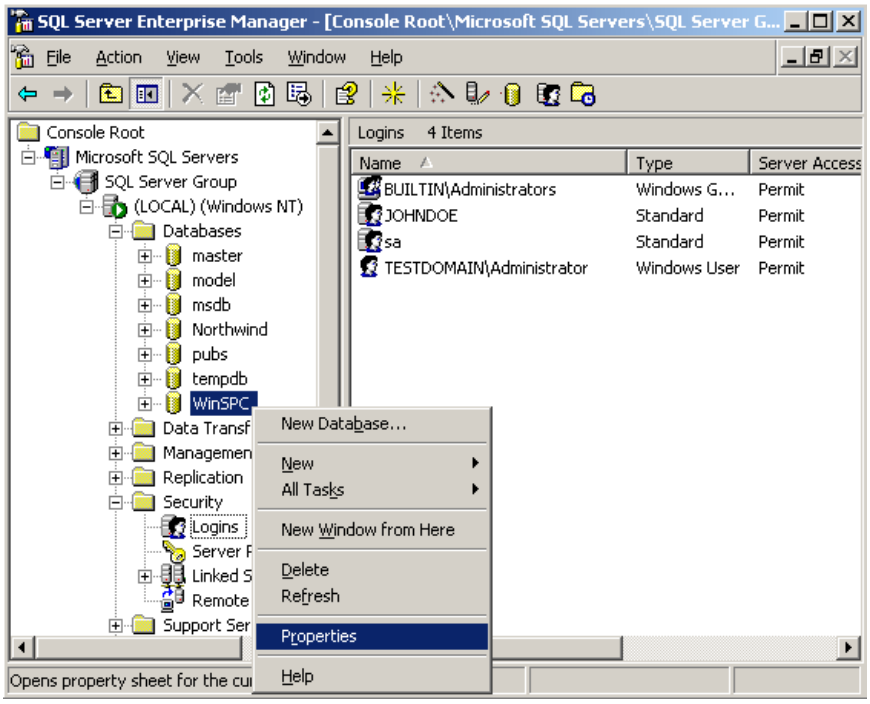
4. In the **Confirm Password** dialog box, at **Confirm new password**, enter the login password created in step 2c and click **OK**.



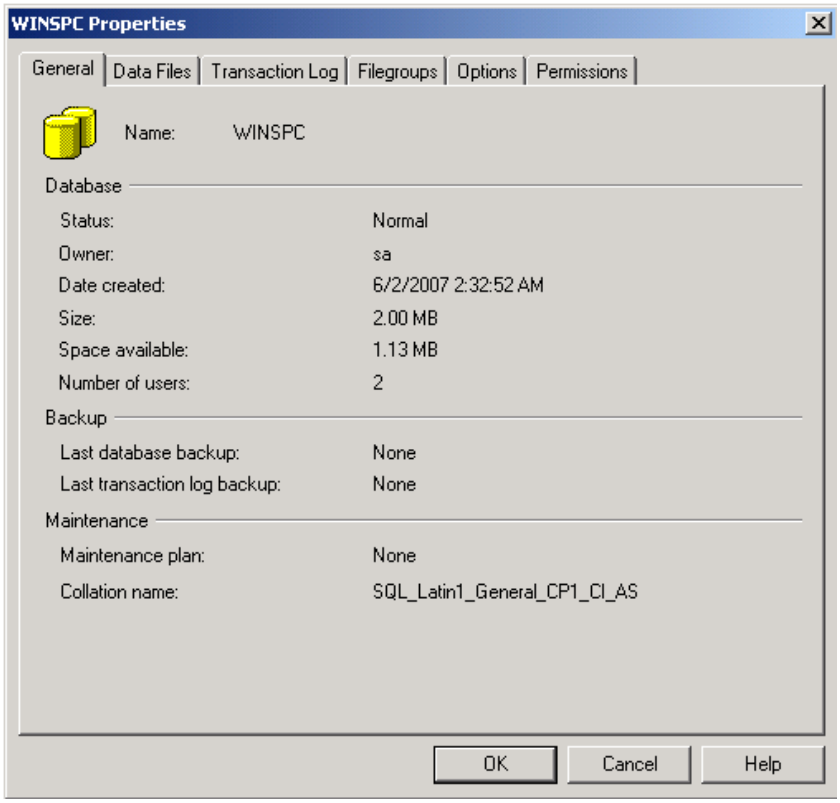
This causes the login name to be listed in the right pane of the **SQL Server Enterprise Manager**.



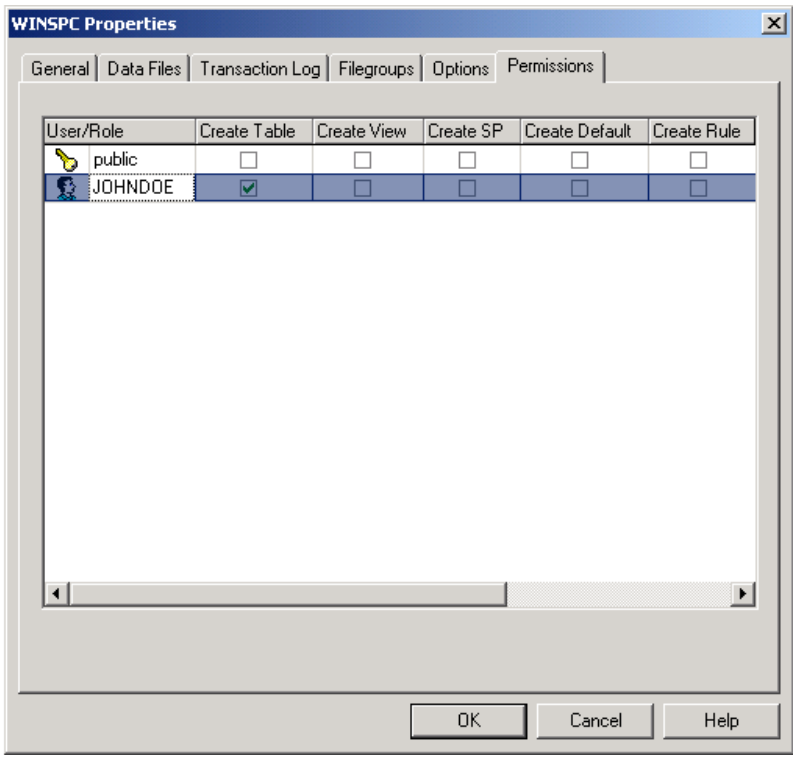
5. In the left pane, under **(LOCAL) (Windows NT),** expand **Databases**, right-click the newly created database and, from the shortcut menu, select **Properties**.



6. In the **<Database Name> Properties** dialog box, click the **Permissions** tab.



7. In the **Create Table** column, check the check box for the new server login name and click **OK**. This closes the **<Database Name> Properties** dialog box.



8. Close the **SQL Server Enterprise Manager**.

THIS COMPLETES PHASE 1 OF 4.

GO TO THE NEXT PAGE AND COMPLETE PHASE 2.

FIRST CLIENT INSTALL AND CONFIGURATION (INITIAL STEPS)

Phase 2 of 4

This section concerns the installation and configuration of WinSPC on the first WinSPC client machine. The first WinSPC client machine simply refers to the first computer on which you want to install WinSPC. This computer can be any machine on your network.

If your implementation employs Microsoft Terminal Services, see the discussion on page 1 of this guide for direction on whether to make your first client the Microsoft Terminal Services server or another computer.

Terminal Services

1. Create a folder on a network file server accessible by all client machines that will run WinSPC. This folder's primary purpose is to facilitate the installation and configuration of WinSPC on all clients other than the first client. (The recommended name for this folder is **WinSPCRemote**.)
2. Share this folder and grant domain administrators a minimum of **Change** *share* permissions and **Modify** *security* permissions to it. (For a procedure on granting *share* or *security* permissions, see **Appendix D: Granting Share and Security Permissions.**)

   NOTE: If your WinSPC implementation is part of a workgroup rather than a domain, grant these **Change** and **Modify** permissions to the local administrator who will install and configure WinSPC on the first WinSPC client machine.
3. Log into Windows on the first WinSPC client machine as a domain administrator who also has local administrator privileges.

   NOTE: If the first WinSPC client machine is part of a workgroup instead of a domain, log in as a local administrator.

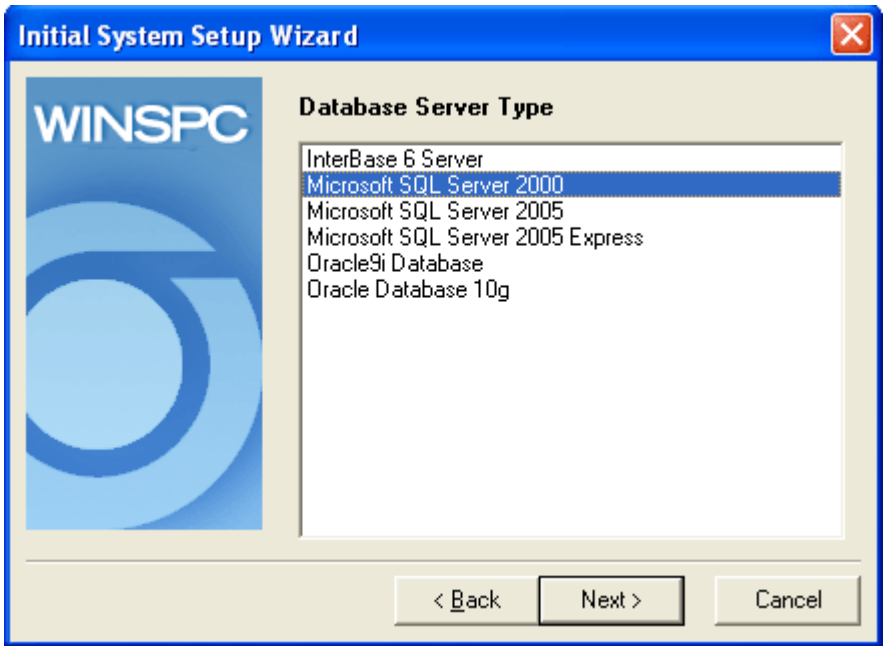
4. Insert the WinSPC CD into the first WinSPC client's CD-ROM drive. If autorun is enabled on the client, the CD will start automatically. If autorun is not enabled:
   a. Click **Start > My Computer**.
   b. In the **My Computer** dialog box, double-click your CD-ROM drive.
   c. When the list of files appears, double-click **Setup.exe**.
5. When the **WinSPC Setup** screen appears, click **Install WinSPC**.
6. Install WinSPC by following the setup prompts. During this installation, after the step when programs files are copied, close the folder that automatically opens. When the **Setup Complete** screen appears, click **Finish**.

   NOTE: The setup prompts are intended to be self-explanatory. Consequently, they are not detailed here. If you have a question about a prompt or want to be directed step-by-step through the setup wizard, see **Appendix A: WinSPC Setup Prompts.**
7. Complete **Appendix B: Installing NJWin for an Asian Language** if the first client machine will need to run WinSPC in an Asian language or you would like to run the Initial System Setup Wizard in an Asian language. (The Initial System Setup Wizard is the tool you will use next in this first client configuration process.)
8. Exit the **WinSPC Setup** screen by clicking the **X** in the upper right corner.
9. Remove the WinSPC CD from the CD-ROM drive.

10. Run **WinSPC**. The default path for doing this is **Start > All Programs > WinSPC > WinSPC CS.** This launches the Initial System Setup Wizard.
11. On the **Language** screen, from the **Select language** list, choose a language and click **Next**.

NOTE: The language selected here becomes the language in which the remainder of the Initial System Setup Wizard will be run. It also becomes the system-wide default language for WinSPC. (This default language can be changed at any time following the completion of the Initial System Setup Wizard. See the Help in WinSPC for more information on default languages once the configuration of the first WinSPC client is complete.)

12. On the **Database Server Type** screen, select **Microsoft SQL Server 2000** and click **Next.** (Notice this screen is displayed in the language selected during the preceding step.)



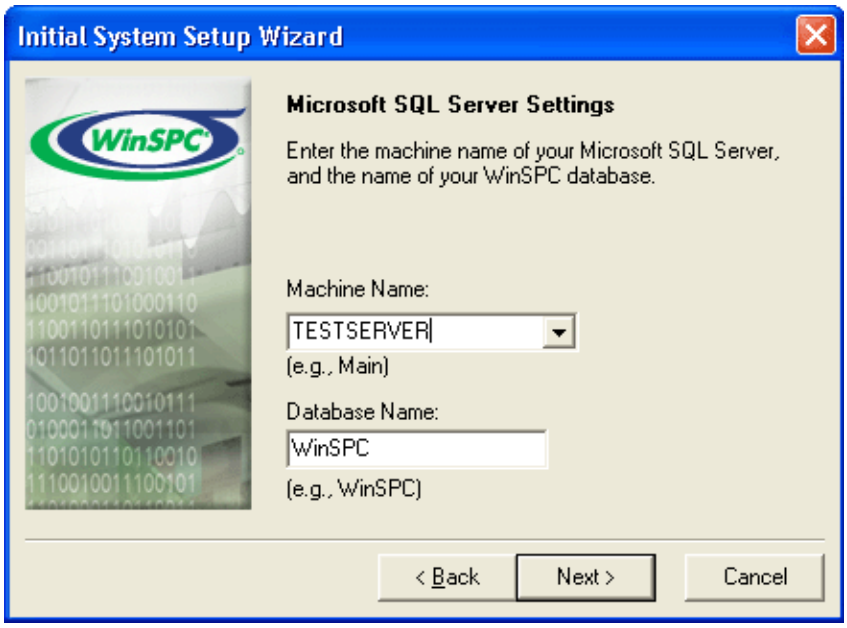
13. On the **Microsoft SQL Server Settings** screen:

    a. At **Machine Name**, enter the machine name and instance name for the Microsoft SQL Server 2000 instance designated for WinSPC, separating these two names by a backslash (e.g. Testserver\WinSPC).

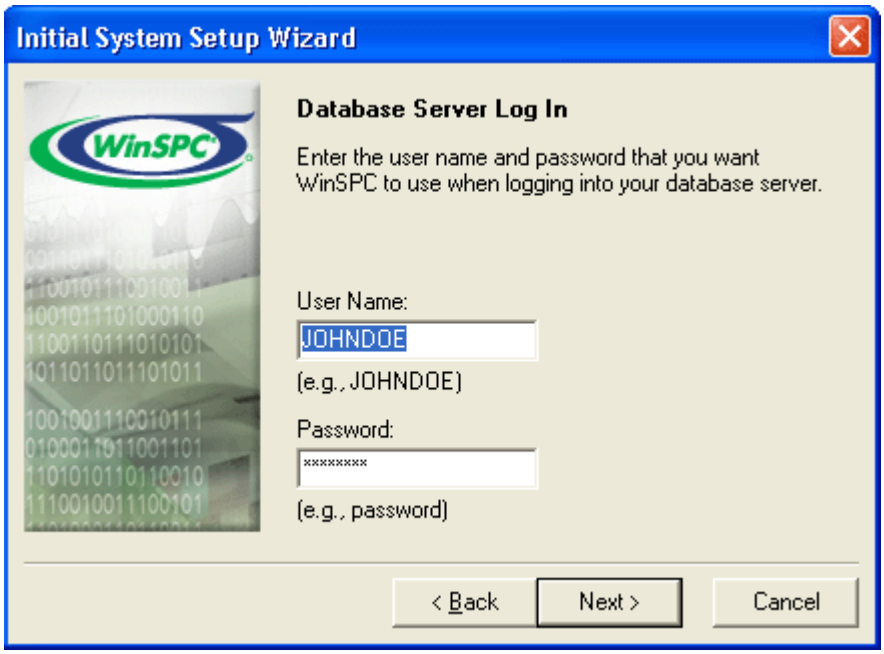
       NOTE: If the Microsoft SQL Server 2000 instance designated for WinSPC is the only Microsoft SQL Server 2000 instance installed on the server, it is not necessary to enter the instance name.

    b. At **Database Name**, enter the database name you created in step 2 of this chapter's **Create a Database** section.

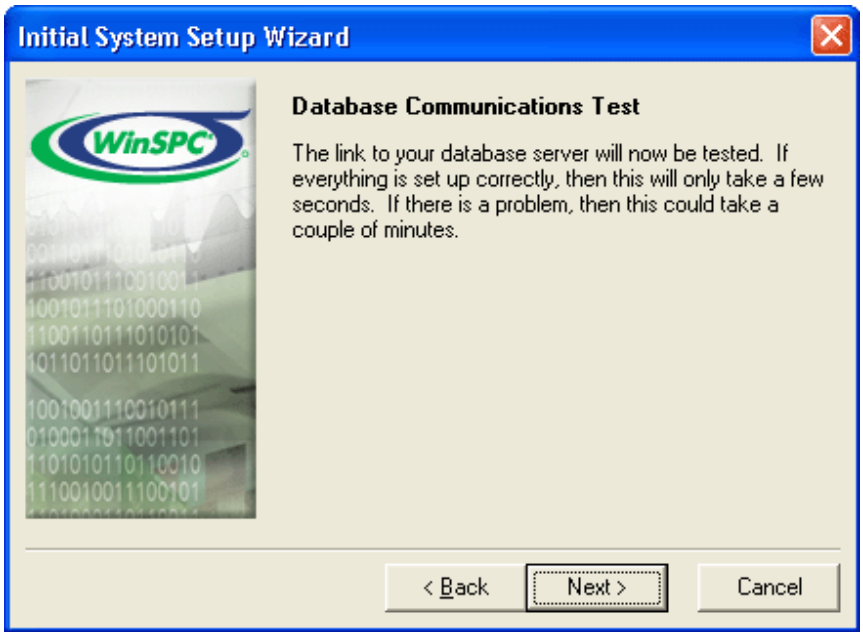
    c. Click **Next**.



14. On the **Database Server Log In** screen, enter the server **User Name** and **Password** created in step 2 of this chapter's **Create a Server Login** section and click **Next**.



15. On the **Database Communications Test** screen, click **Next.**

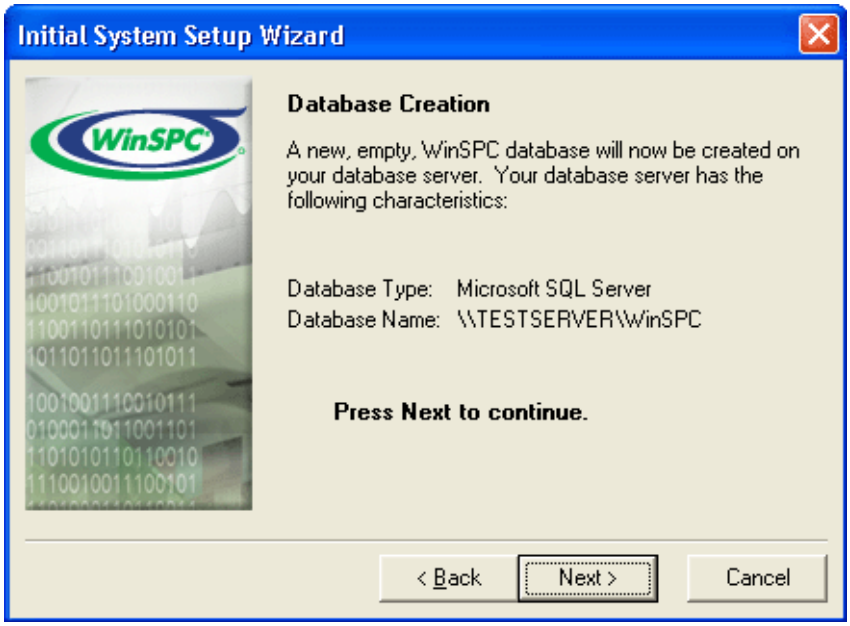


NOTE: In the event the test fails:

- If the error message displayed reads **Cannot locate or connect to SQL Server. Unable to connect…**, click the **Back** button three times and reenter the machine and instance names, ensuring you have the correct names and that they are spelled correctly. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.

- If the error message displayed reads **General SQL error. Could not locate entry…**, click the **Back** button three times and reenter the database name, ensuring you have the correct name and that it is spelled correctly. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.
- If the error message reads **Unknown user name or password, Login failed…**, click the **Back** button twice and reenter the server user name and password, ensuring you have the correct user name and password and that these are spelled correctly. Also, since passwords are case sensitive, ensure the appropriate capitalization is used for the password. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.

16. On the **Database Creation** screen, click **Next**. This creates the WinSPC schema within the WinSPC database.



17. If you selected a language other than English in step 11 of this section, an **Add Language** screen appears once the WinSPC schema is created. In this case:

    a. Insert the language disk for the selected language into your floppy drive and click the **OK** button.

    b. In the message asking if you want to proceed with the addition of the detected language, click **OK**.

    c. If a message indicating the detected language has already been installed appears, click **OK**.

    d. Allow the **Adding New Language** progress bar to complete.

    e. When the **You may now select the desired language in the System Settings, Station Setup, or User Setup** message appears, click **OK**.

    f. If the **Add Language** screen reappears, click **Cancel**.

    g. Remove the language disk from the floppy drive.

    NOTE: Language disks are included in your WinSPC materials. If you didn't order a language disk and, consequently, did not receive one, click the **Cancel** button and complete the Initial System Setup Wizard without adding the language. Later, you can order the language disk and, once it arrives, add the language using the **Add Language** option on the **Administrator** window's **Tools** menu in WinSPC. Until the language is added, you'll be restricted to running WinSPC in English. (The remainder of the Initial System Setup Wizard continues to run in the selected language whether or not a language is added from a language disk.)

THIS COMPLETES PHASE 2 OF 4.

GO TO **CHAPTER 6: FIRST CLIENT CONFIGURATION (FINAL STEPS)** AND COMPLETE PHASE 3.

CHAPTER 3: MICROSOFT SQL SERVER 2005 & 2005 EXPRESS

WinSPC is certified to run on both Microsoft SQL Server 2005 and Microsoft SQL Server 2005 Express. This chapter applies to both of these editions.

Because the procedures to configure these editions for use with WinSPC are nearly identical, where Microsoft SQL Server screen images are used to illustrate this chapter, they are exclusively from Microsoft SQL Server 2005 Express. In addition, where the text of this chapter applies to both editions equally, edition-specific titles are omitted in favor of generic titles such as *Microsoft SQL Server* or *SQL Server Management Studio*.

ASSUMPTIONS

The instructions in this chapter are based on the following assumptions:

- For Microsoft SQL Server 2005 Express, the version of WinSPC which will be installed and configured is 7.2.10 or later. (Microsoft SQL Server 2005 has been certified for use with WinSPC since WinSPC Version 7.1.)
- The edition of Microsoft SQL Server you want to use for your WinSPC implementation is installed and running on your database server machine.
- An instance of this edition has been created for WinSPC and is running. (This instance may be named or unnamed.)
- During the creation of this instance, the authentication mode selected was **Mixed Mode** (**Windows Authentication and SQL Server Authentication**). (WinSPC will not function if the default **Windows Authentication Mode** was accepted.)

- The management and configuration tools appropriate to your edition of Microsoft SQL Server are installed on your database server. At a minimum, these include **SQL Server Management Studio** and **SQL Server Configuration Manager**.
- Other than the **Mixed Mode** of authentication, the default values presented by Microsoft SQL Server during the setup process were accepted without modification.
- Any firewalls between your database server and the client machines to be used for WinSPC are properly configured to permit database traffic.

Terminal Services

- For implementations employing a Microsoft Terminal Services environment, Microsoft Terminal Services is properly installed and configured on the server designated as your Microsoft Terminal Services server.
- The operating system of your database server machine is Windows 2003 Server.
- The operating system of the client machines to be used for WinSPC is Windows XP Pro.

NOTE: If a default value was modified during the installation of Microsoft SQL Server or an operating system is different from that stated here, adapt the instructions in this guide as needed to accommodate the modified value or differing operating system.

SERVER CONFIGURATION **Phase 1 of 4**

Establish a Server Connection

1. On the database server machine, launch **SQL Server Management Studio**, the default path for which is **Start > All Programs > Microsoft SQL Server > SQL Server Management Studio**.
2. In the **Connect to Server** dialog box that appears:
   a. At **Server Type**, accept the **Database Engine** default.
   b. At **Server name**, if a name is not displayed or the name displayed is incorrect for your WinSPC implementation, select the correct name from the dropdown list. Depending on your edition of Microsoft SQL Server and the options selected during this edition's setup, the instance for your implementation may be *named* or *unnamed*. If your instance is named, the correct name for this **Server name** field consists of a combination of the server name and the instance name (e.g. TESTSERVER\SQLEXPRESS). If your instance is unnamed, the correct name for this **Server name** field consists of the server name alone (e.g. TESTSERVER). In the event the server name displayed is incorrect and the dropdown list does not contain the correct name:
      i. From the **Server name** dropdown list, select **<Browse for more…>**.
      ii. In the **Browse for Servers** dialog box, click the **Network Servers** tab. This automatically initiates a search for servers on your network.

iii. When the search completes, expand **Database Engine** and single-click the desired server name or server name\instance name combination.

iv. Click **OK**.

c. At **Authentication**, select **SQL Server Authentication**.

d. At **Login**, enter **sa**.

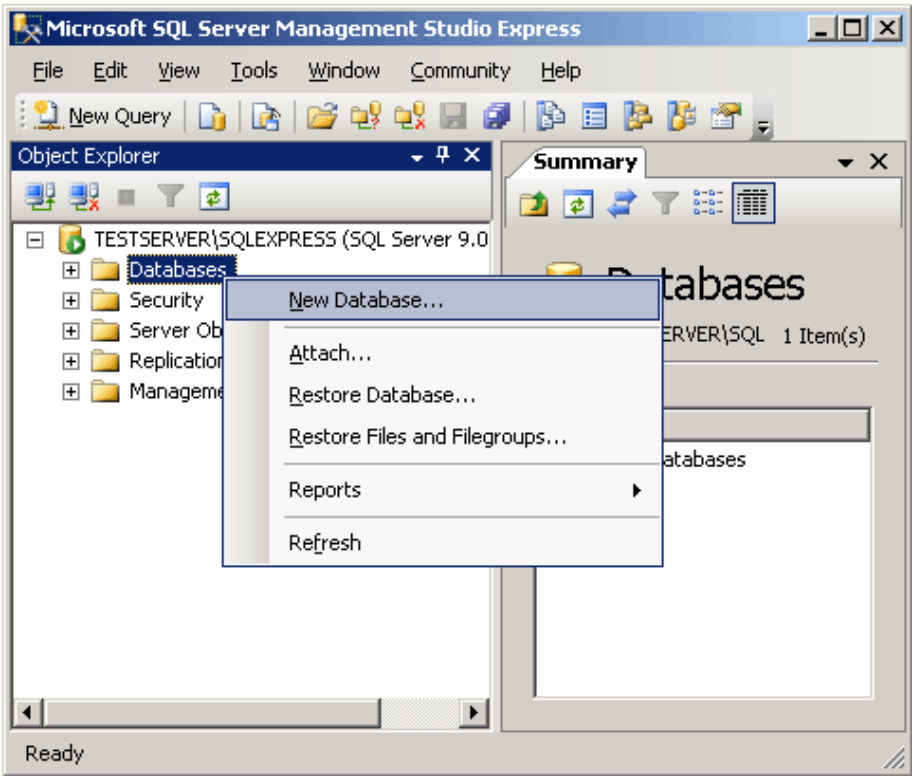
e. At **Password**, enter the password assigned to the **sa** login.

f. Click **Connect**.

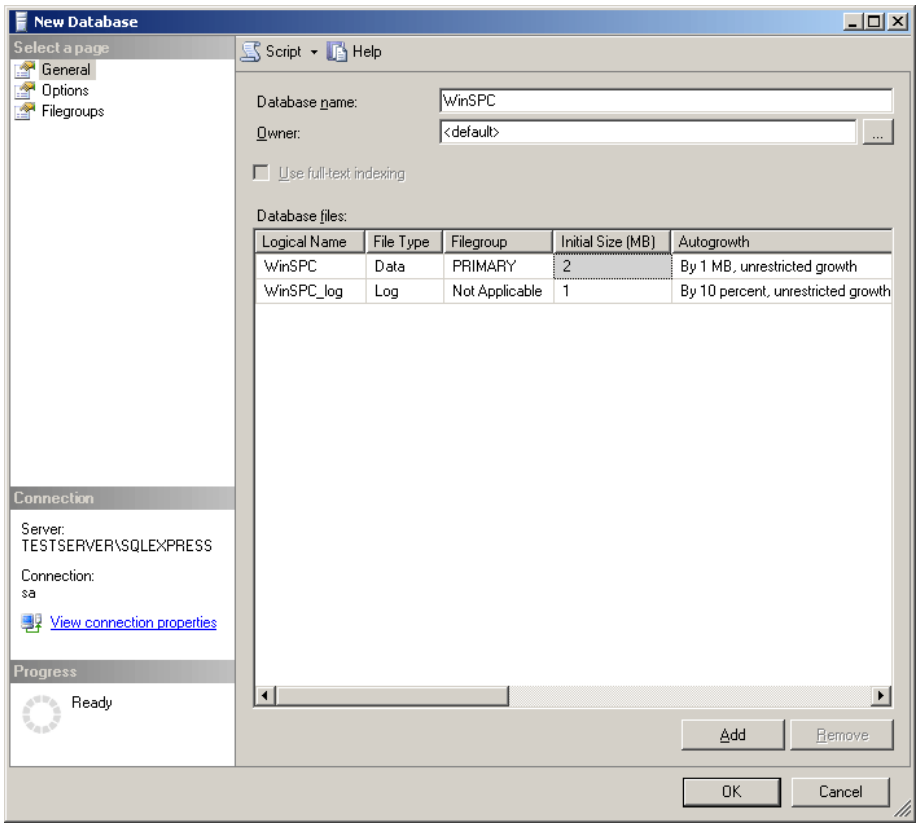
NOTE: If the **Connect to Server** dialog box is not displayed, click **File > New > Database Engine Query** and complete the preceding substeps in the **Connect to Database Engine** dialog box.

Create a Database

1. In the **Object Explorer** (i.e. the left pane) of **Microsoft SQL Server Management Studio,** right-click **Databases** and, from the shortcut menu, select **New Database**.

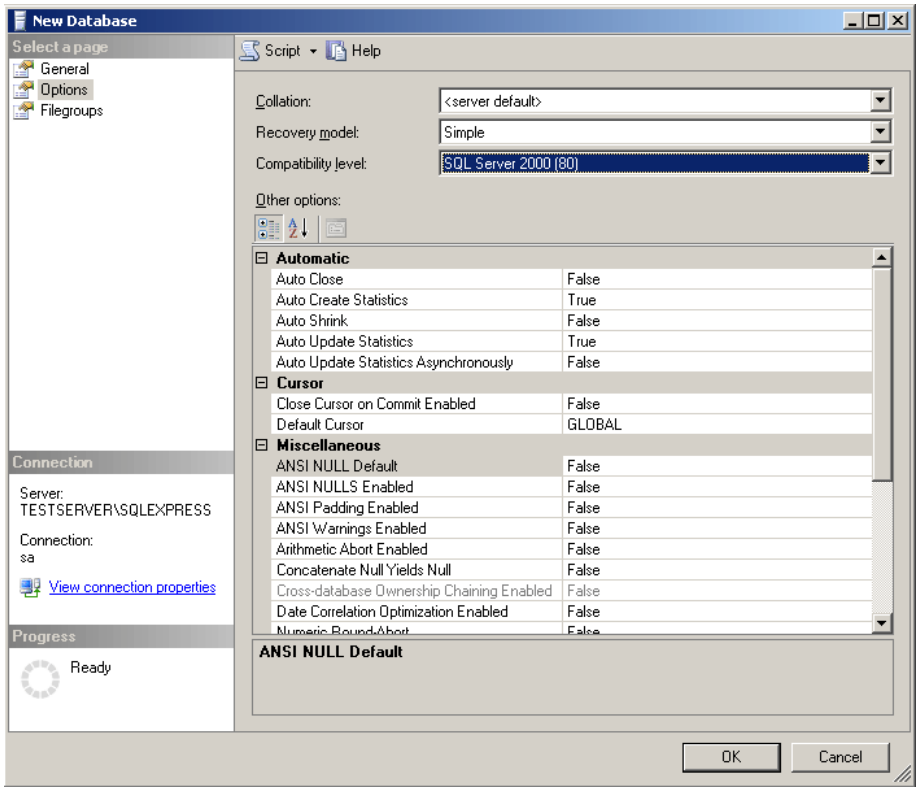


2. In the **New Database** dialog box, at **Database name,** create and enter a name for the database. (The recommended database name is **WinSPC**.)



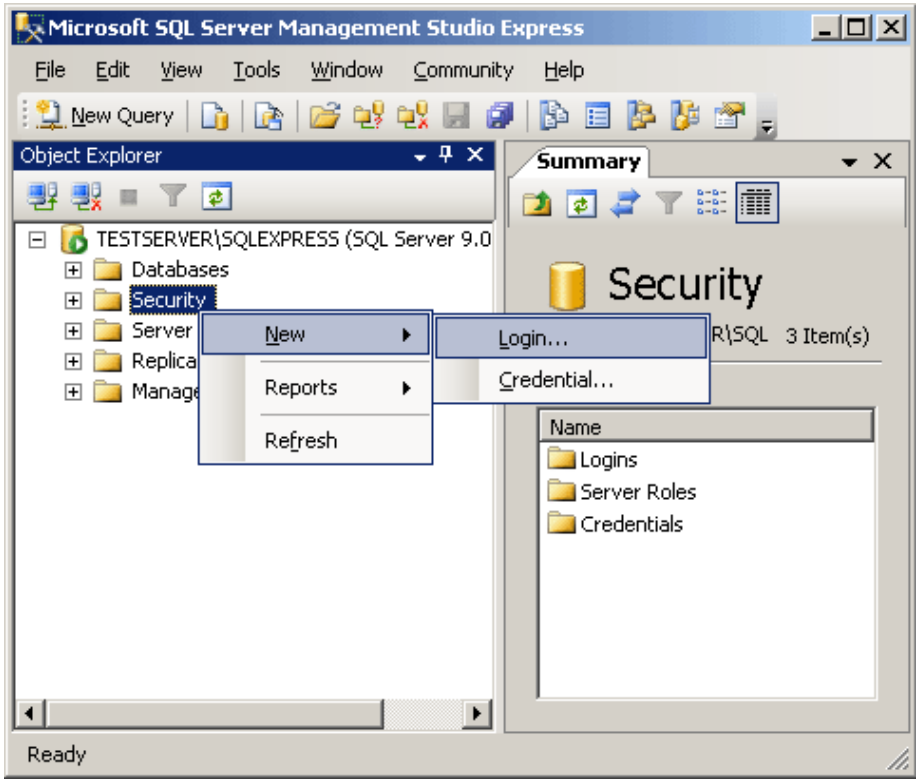
3. In the top left of the dialog box, under **Select a Page**, click **Options**.

4. At **Compatibility Level**, select **SQL Server 2000 (80)** and click **OK**. The **New Database** dialog box closes.



Create a Server Login

1. In the **Object Explorer**, right-click the **Security** folder and select **New > Login**.



(The **Security** folder referred to here is the one in the root level of the folder for the server or server\instance you are configuring, not the **Security** sub-folder within the new **Databases** folder.)

2. In the **Login - New** dialog box:
   a. At **Login name**, create and enter a name for the login. (The recommended name is **JOHNDOE**.)

      NOTE: The name entered here must match the schema name entered in step 3b below.

   b. Select **SQL Server authentication**.

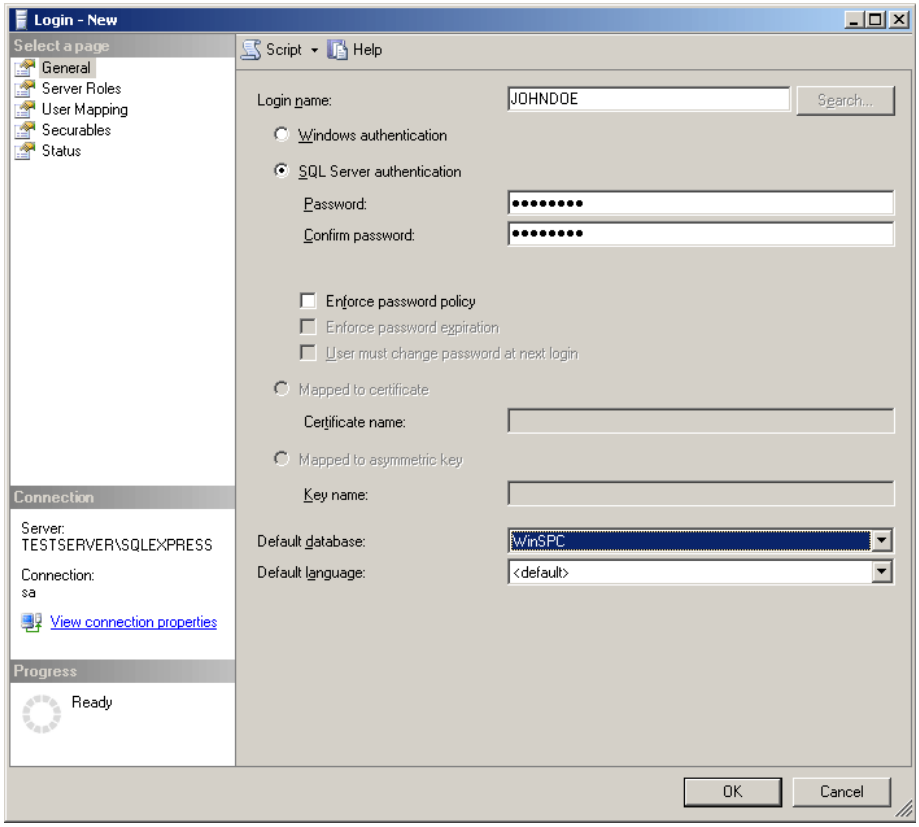
   c. At **Password**, create and enter a sufficiently strong password for the login.

   d. At **Confirm password**, reenter the password.

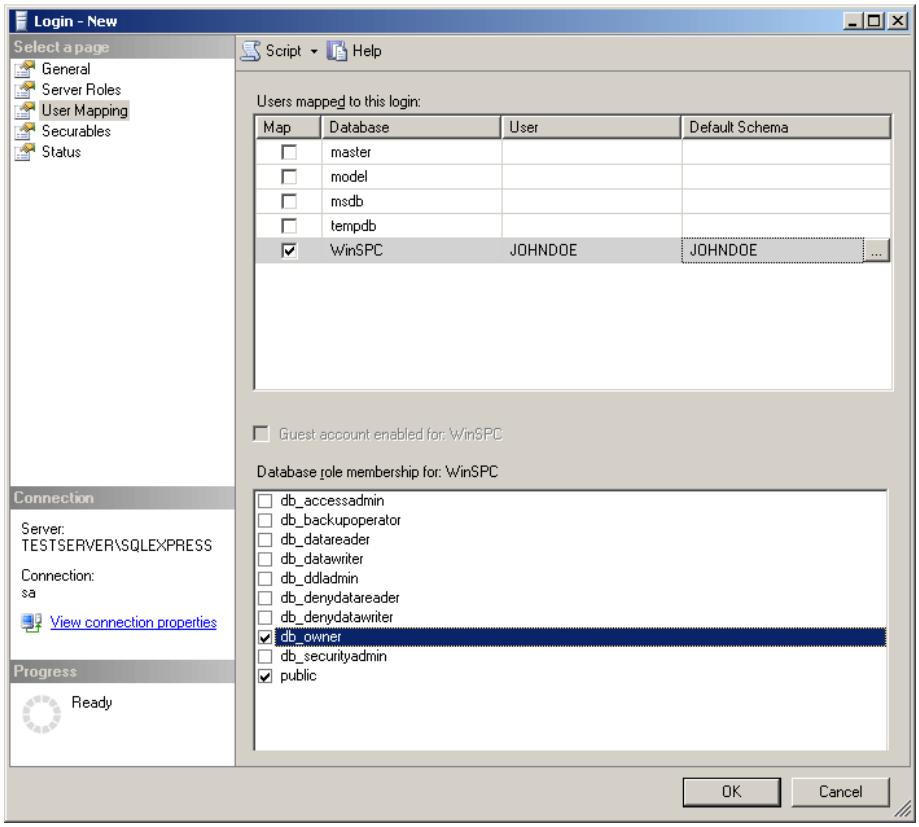
   NOTE: The user name and password entered here will be used by Microsoft SQL Server to authentic WinSPC client machines and allow authenticated machines access to the WinSPC database. This user name and password combination is not directly used by WinSPC users. WinSPC users will, later, be assigned individual user IDs and passwords. They will use these individual user IDs and passwords to log into the WinSPC application on WinSPC client machines.

e. Uncheck the **Enforce password policy** check box.

f. At **Default database**, select **WinSPC**.



3. Under **Select a page** (top left pane), single-click **User Mapping** and then, in the right portion of the dialog box:
   a. Under **Users mapped to this login**, in the **Map** column, check the check box for the newly created WinSPC database.
   b. In the same row as the WinSPC database, click the empty **Default Schema** cell and, again, enter the login name created in step 2a.
   c. In the bottom half of the dialog box, under **Database role membership for: <Database Name>**, check the **db_owner** check box.
   d. Click **OK.**

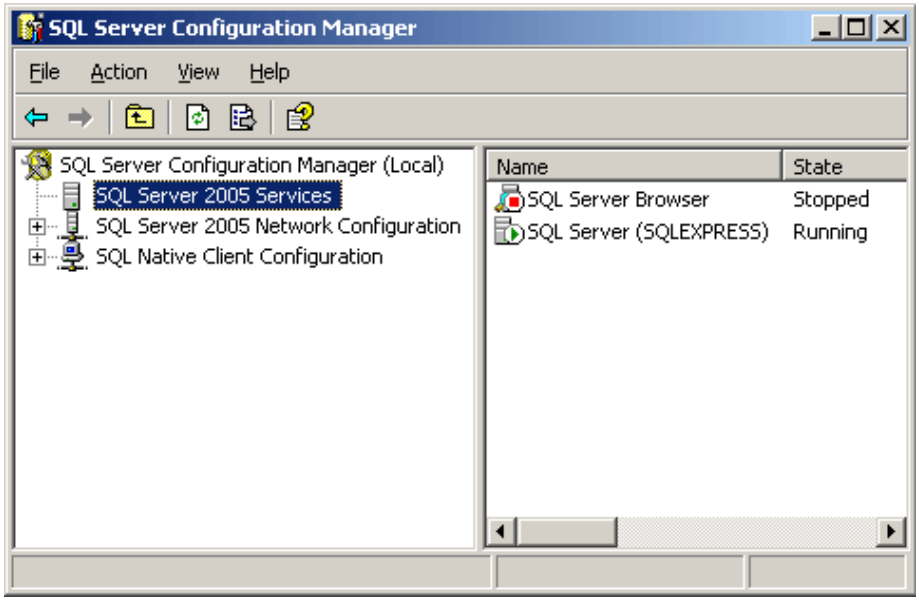


Configure the SQL Server Browser Service and Enable a Network Protocol

1. Without exiting **Microsoft SQL Server Management Studio**, launch **SQL Server Configuration Manager**, the default path for which is **Start > All Programs > Microsoft SQL Server > Configuration Tools > SQL Server Configuration Manager**.
2. If the instance you are working with *is not* a named instance, you do not need to complete this step and may proceed to step 3. If the

instance you are working with *is* a named service, configure the **SQL Browser Service** to start automatically and then manually start the service. To do this:

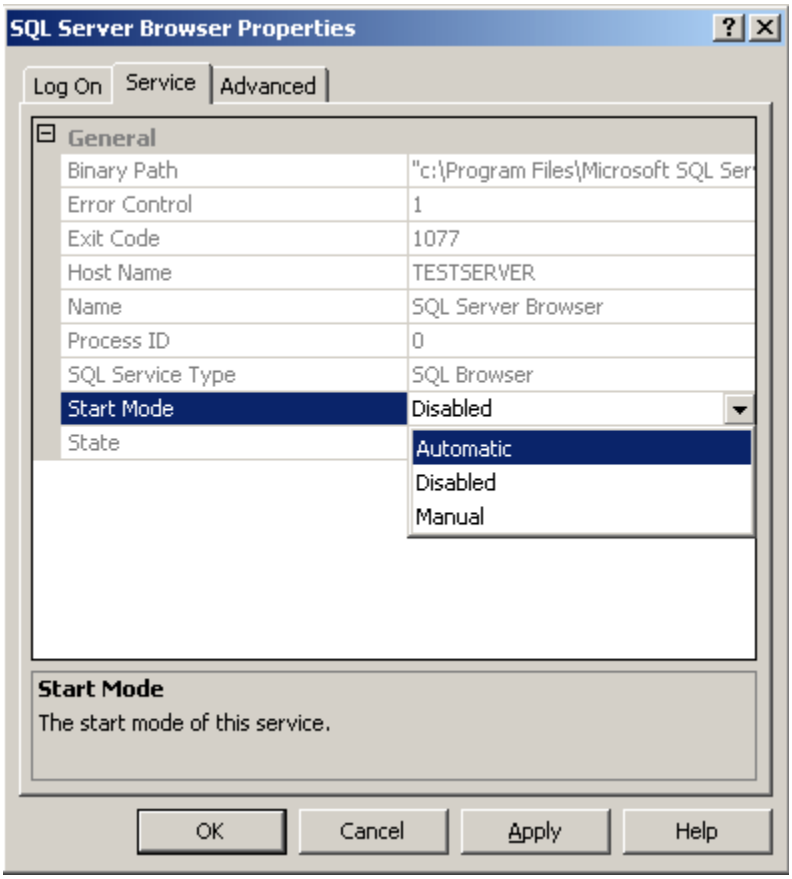
a. In the left pane of **SQL Server Configuration Manager**, click **SQL Server Services.**



b. In the right pane, right-click **SQL Server Browser** and select **Properties**.

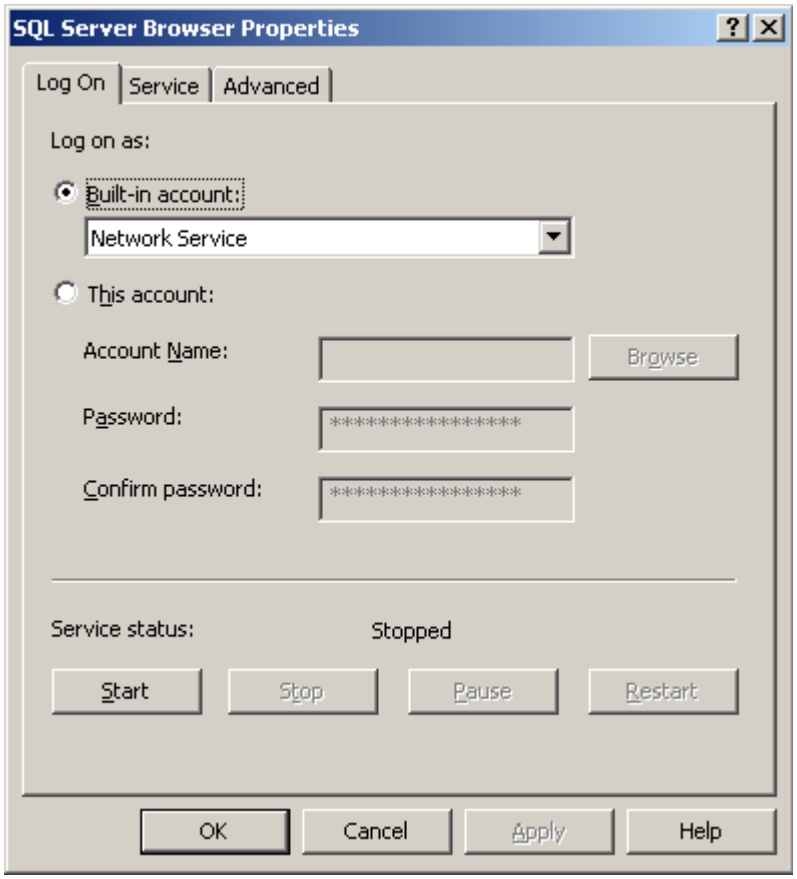
c. In the **SQL Server Browser Properties** dialog box, click the **Service** tab.

d. On this tab, to the right of **Start Mode**, click **Disabled** and select **Automatic**.



e. Click the **Apply** button.

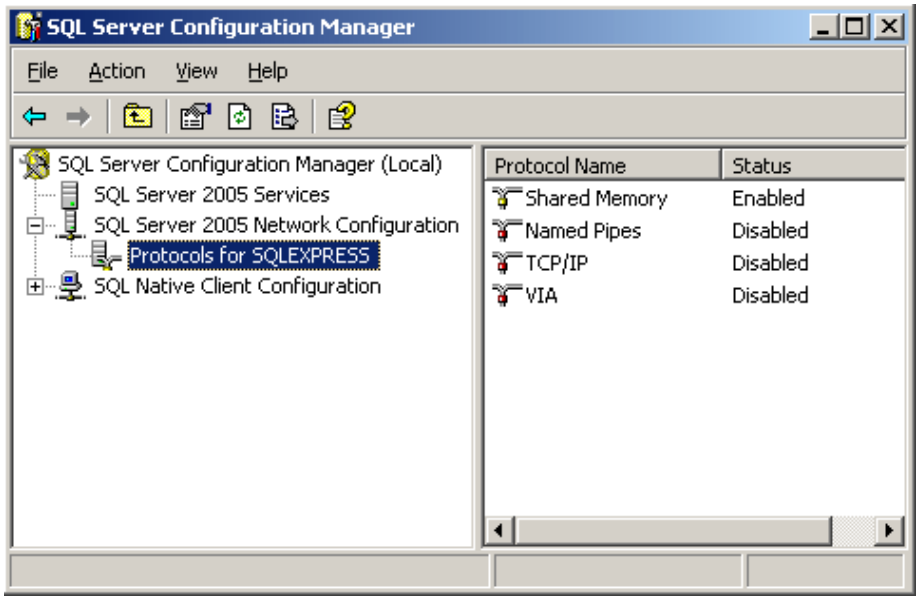
f. Click the **Log On** tab and on this tab click the **Start** button.



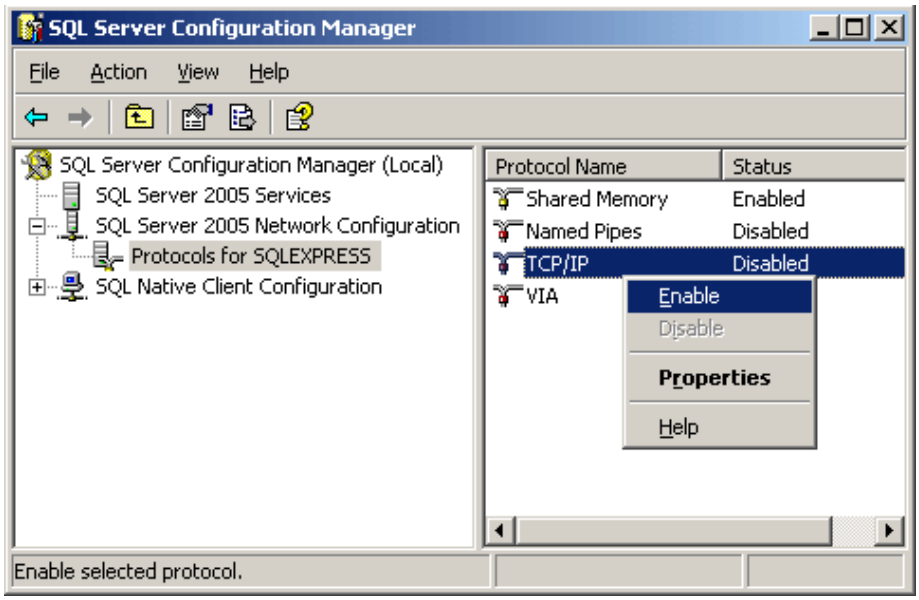
g. Allow the progress bar that appears to complete and click **OK**.

3. Enable a network protocol. To do this:

   a. In the left pane of **SQL Server Configuration Manager**, expand **SQL Server Network Configuration** and single-click **Protocols for <SERVER OR INSTANCE NAME>**.


SQL Server Configuration Manager
File
Action
View
Help
SQL Server Configuration Manager (Local)
SQL Server 2005 Services
SQL Server 2005 Network Configuration
Protocols for SQLEXPRESS
SQL Native Client Configuration
Protocol Name
Status
Shared Memory
Enabled
Named Pipes
Disabled
TCP/IP
Disabled
VIA
Disabled

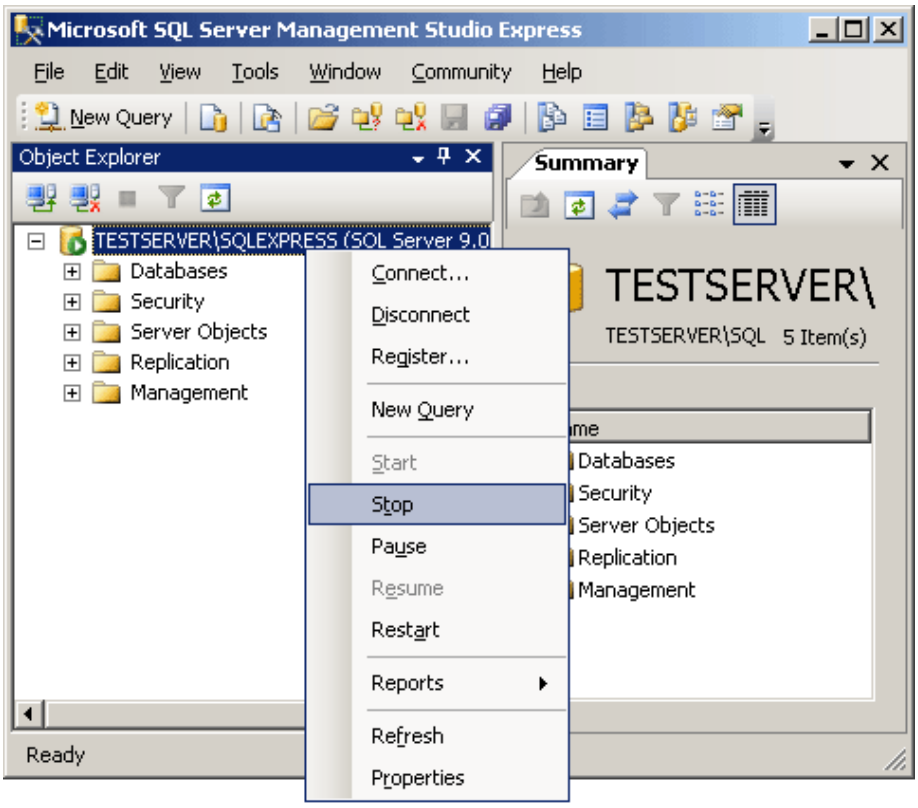
b. In the right pane, right-click either **TCP/IP** or **Named Pipes** and click **Enable**. (WinSPC works with either of these options. If you are unsure of which option to choose, consult with your network administrator.)



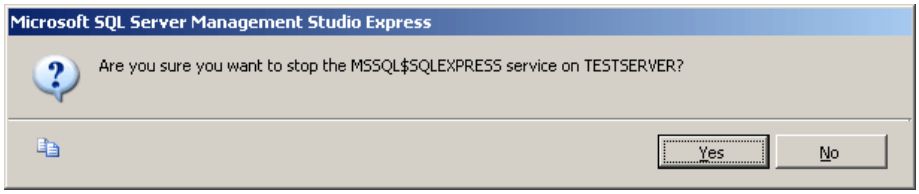
c. In the warning indicating that changes will not take effect until the service is stopped and restarted, click **OK**.

d. Close **SQL Server Configuration Manager**.

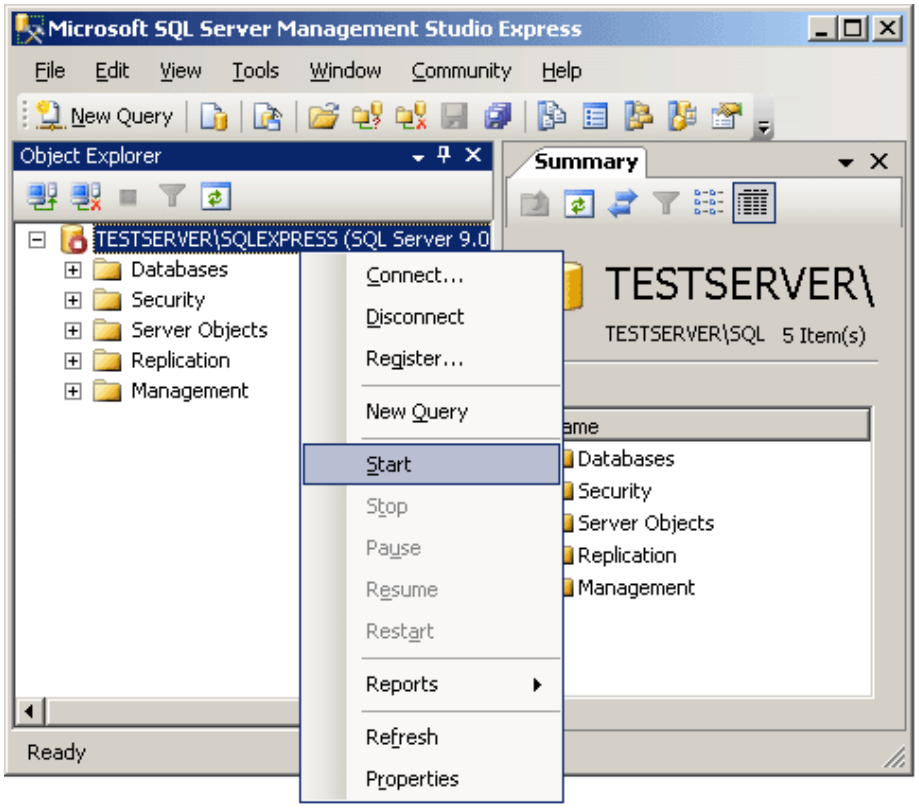
e. In **Microsoft SQL Server Management Studio**, right-click the server or server/instance you've been configuring and select **Stop**.



f. In the message box that appears, click **Yes** to confirm you want to stop the service.



g. When the message box closes, right-click the server or server/instance again and select **Start**.



h. In the message box that appears, click **Yes** to confirm you want to start the service.

i. Click **File > Exit** to close **Microsoft SQL Server Management Studio**.

THIS COMPLETES PHASE 1 OF 4.

GO TO THE NEXT PAGE AND COMPLETE PHASE 2.

FIRST CLIENT INSTALL AND CONFIGURATION (INITIAL STEPS)

Phase 2 of 4

This section concerns the installation and configuration of WinSPC on the first WinSPC client machine. The first WinSPC client machine simply refers to the first computer on which you want to install WinSPC. This computer can be any machine on your network.

If your implementation employs Microsoft Terminal Services, see the discussion on page 1 of this guide for direction on whether to make your first client the Microsoft Terminal Services server or another computer.

Terminal Services

1. Create a folder on a network file server accessible by all client machines that will run WinSPC. This folder's primary purpose is to facilitate the installation and configuration of WinSPC on all clients other than the first client. (The recommended name for this folder is **WinSPCRemote**.)
2. Share this folder and grant domain administrators a minimum of **Change** *share* permissions and **Modify** *security* permissions to it. (For a procedure on granting *share* or *security* permissions, see **Appendix D: Granting Share and Security Permissions.**)

   NOTE: If your WinSPC implementation is part of a workgroup rather than a domain, grant these **Change** and **Modify** permissions to the local administrator who will install and configure WinSPC on the first WinSPC client machine.
3. Log into Windows on the first WinSPC client machine as a domain administrator who also has local administrator privileges.

   NOTE: If the first WinSPC client machine is part of a workgroup instead of a domain, log in as a local administrator.

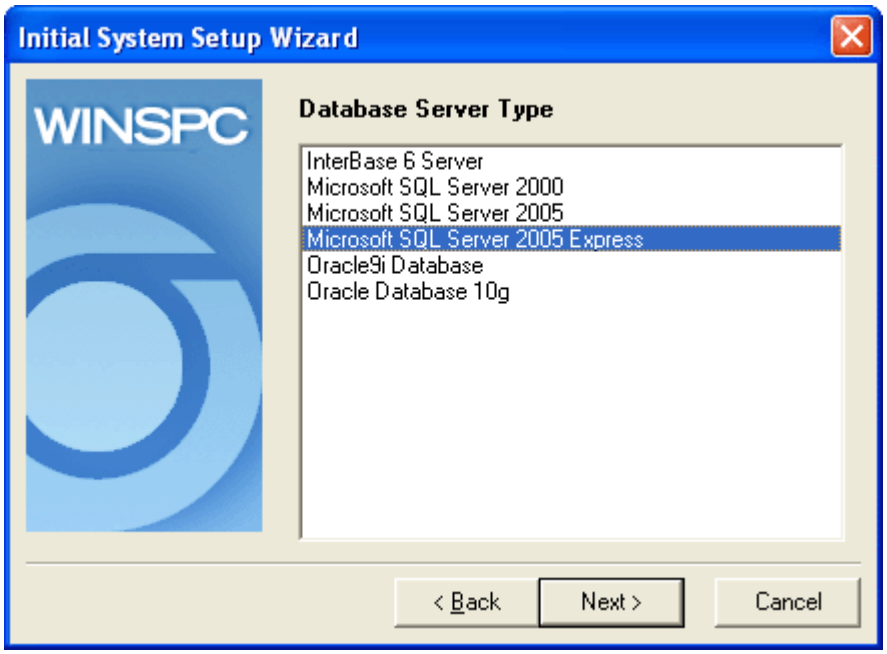
4. Insert the WinSPC CD into the first WinSPC client's CD-ROM drive. If autorun is enabled on the client, the CD will start automatically. If autorun is not enabled:
   a. Click **Start > My Computer**.
   b. In the **My Computer** dialog box, double-click your CD-ROM drive.
   c. When the list of files appears, double-click **Setup.exe**.
5. When the **WinSPC Setup** screen appears, click **Install WinSPC**.
6. Install WinSPC by following the setup prompts. During this installation, after the step when programs files are copied, close the folder that automatically opens. When the **Setup Complete** screen appears, click **Finish**.

   NOTE: The setup prompts are intended to be self-explanatory. Consequently, they are not detailed here. If you have a question about a prompt or want to be directed step-by-step through the setup wizard, see **Appendix A: WinSPC Setup Prompts.**
7. Complete **Appendix B: Installing NJWin for an Asian Language** if the first client machine will need to run WinSPC in an Asian language or you would like to run the Initial System Setup Wizard in an Asian language. (The Initial System Setup Wizard is the tool you will use next in this first client configuration process.)
8. Exit the **WinSPC Setup** screen by clicking the **X** in the upper right corner.
9. Remove the WinSPC CD from the CD-ROM drive.

10. Run **WinSPC**. The default path for doing this is **Start > All Programs > WinSPC > WinSPC CS.** This launches the Initial System Setup Wizard.
11. On the **Language** screen, from the **Select language** list, choose a language and click **Next**.

NOTE: The language selected here becomes the language in which the remainder of the Initial System Setup Wizard will be run. It also becomes the system-wide default language for WinSPC. (This default language can be changed at any time following the completion of the Initial System Setup Wizard. See the Help in WinSPC for more information on default languages once the configuration of the first WinSPC client is complete.)

12. On the **Database Server Type** screen, select your **Microsoft SQL Server** edition and click **Next.** (Notice this screen is displayed in the language selected during the preceding step.)



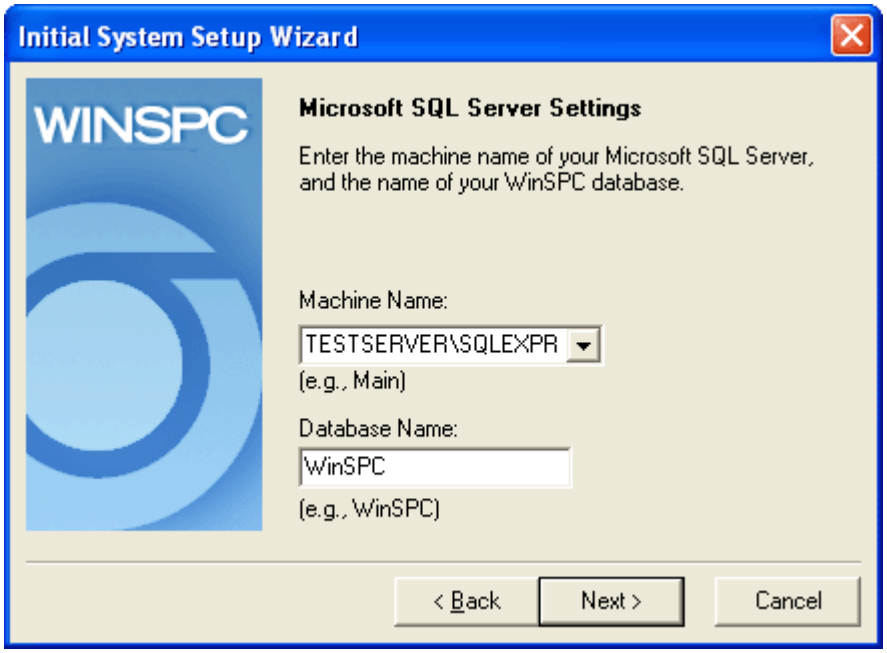
13. On the **Microsoft SQL Server Settings** screen:

    a. At **Machine Name**, enter the machine name and instance name for the Microsoft SQL Server instance designated for WinSPC, separating these two names by a backslash (e.g. TESTSERVER\SQLEXPRESS).

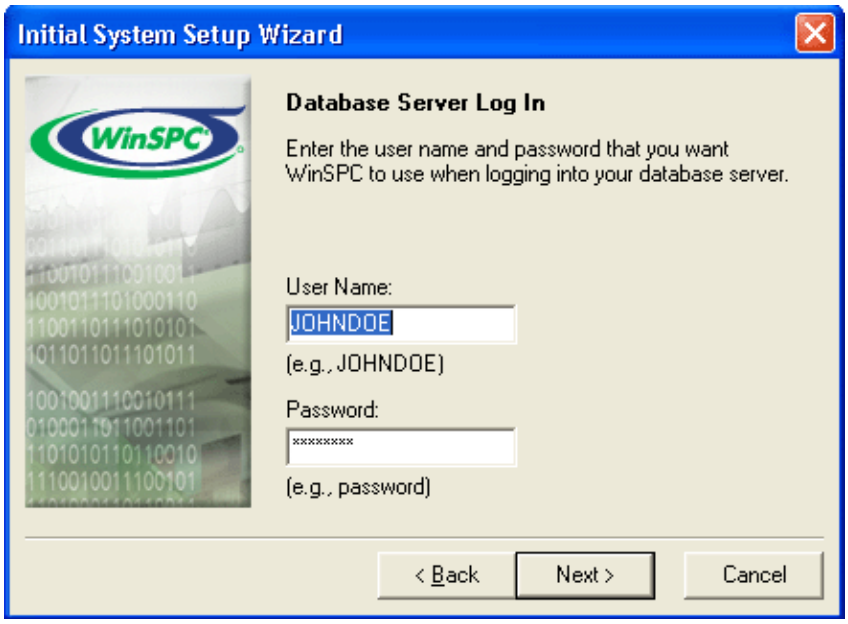
       NOTE: If the instance designated for WinSPC is unnamed, enter the server name only. If you do not know whether the instance is named or unnamed or if you know the instance is named but are unsure of the name used, contact the server administrator.

    b. At **Database Name**, enter the database name you choose in step 2 of this chapter's **Create a Database** section.

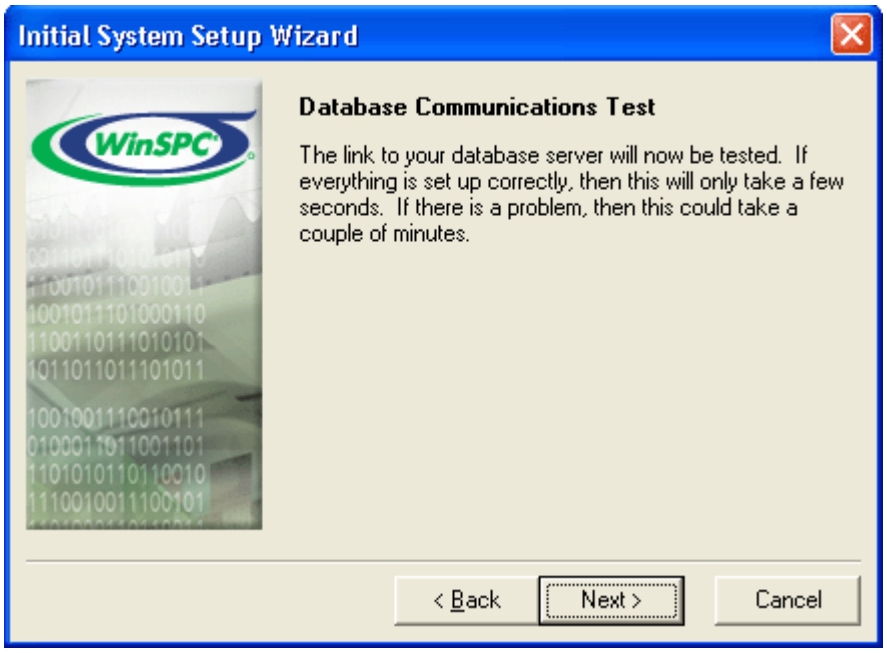
    c. Click **Next.**


Initial System Setup Wizard
WINSPC
Microsoft SQL Server Settings
Enter the machine name of your Microsoft SQL Server, and the name of your WinSPC database.
Machine Name:
TESTSERVER\SQLEXPR
(e.g., Main)
Database Name:
WinSPC
(e.g., WinSPC)
< Back
Next >
Cancel

14. On the **Database Server Log In** screen, enter the server **User Name** and **Password** created in step 2 of this chapter's **Create a Server Login** section and click **Next.**



15. On the **Database Communications Test** screen, click **Next**.

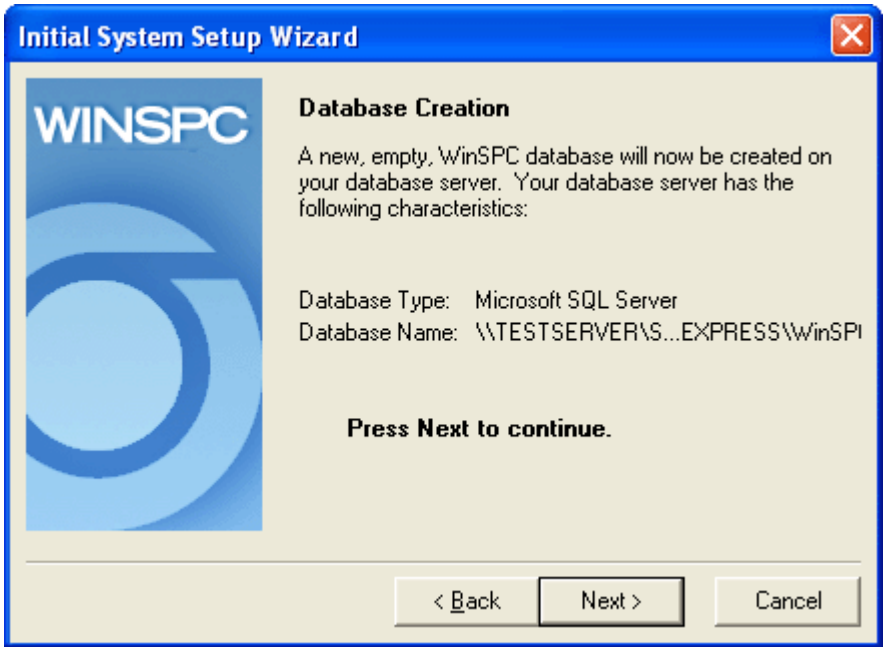


NOTE: In the event the test fails:

- If the error message displayed reads **Cannot locate or connect to SQL Server. Unable to connect…**, click the **Back** button three times and reenter the machine and instance names, ensuring you have the correct names and that they are spelled correctly. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.

- If the error message displayed reads **General SQL error. Could not locate entry…**, click the **Back** button three times and reenter the database name, ensuring you have the correct name and that it is spelled correctly. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.
- If the error message reads **Unknown user name or password. Login failed…**, click the **Back** button twice and reenter the server user name and password, ensuring you have the correct user name and password and that these are spelled correctly. Also, since passwords are case sensitive, ensure the appropriate capitalization is used for the password. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.

16. On the **Database Creation** screen, click **Next**. This creates the WinSPC schema within the WinSPC database.



17. If you selected a language other than English in step 11 of this section, an **Add Language** screen appears once the WinSPC schema is created. In this case:

    a. Insert the language disk for the selected language into your floppy drive and click the **OK** button.

    b. In the message asking if you want to proceed with the addition of the detected language, click **OK**.

    c. If a message indicating the detected language has already been installed appears, click **OK**.

    d. Allow the **Adding New Language** progress bar to complete.

    e. When the **You may now select the desired language in the System Settings, Station Setup, or User Setup** message appears, click **OK**.

    f. If the **Add Language** screen reappears, click **Cancel**.

    g. Remove the language disk from the floppy drive.

    NOTE: Language disks are included in your WinSPC materials. If you didn't order a language disk and, consequently, did not receive one, click the **Cancel** button and complete the Initial System Setup Wizard without adding the language. Later, you can order the language disk and, once the disk arrives, add the language using the **Add Language** option on the **Administrator** window's **Tools** menu in WinSPC. Until the language is added, you'll be restricted to running WinSPC in English. (The remainder of the Initial System Setup Wizard continues to run in the selected language whether or not a language is added from a language disk.)

THIS COMPLETES PHASE 2 OF 4.

GO TO **CHAPTER 6: FIRST CLIENT CONFIGURATION (FINAL STEPS)** AND COMPLETE PHASE 3.

CHAPTER 4: ORACLE9*i*

ASSUMPTIONS

The instructions in this chapter are based on the following assumptions:

- Oracle9*i* Database software is installed on your database server.
- An Oracle9i **General Purpose** global database of the **Enterprise Edition** installation type is created and running on your database server and you have been authorized to use part of this global database for WinSPC.
- Oracle9*i* Client is installed on the first WinSPC client machine and that installation is of the **Administrator** type (as compared to the **Runtime** or **Custom** types). (The first WinSPC client machine simply refers to the first computer on which you want to install WinSPC. This computer can be any client machine on your network.)
- Oracle 9*i* Client is also installed on all additional client machines which are to run WinSPC and these installations are of the **Runtime** type.
- The default values presented by Oracle9*i* Database and Oracle9*i* Client during the installation process were accepted without modification.
- Any firewalls between your database server and the client machines to be used for WinSPC are properly configured to permit database traffic.

- For implementations employing a Microsoft Terminal Services environment, Microsoft Terminal Services is properly installed and configured on the server designated as your Microsoft Terminal Services server.

  NOTE: You may find that users who don't have administrative permissions to the Microsoft Terminal Services server are unable to launch WinSPC via a Remote Desktop Protocol session. This is a circumstance specific to Oracle 9*i* Database and Oracle Database *10g*. It can be remedied by changing the **Permission Capability** on the Microsoft Terminal Services server from **Full Security** to **Relaxed Security**. Alternatively, consult your network administrator and/or Oracle DBA for other remedies.

- The operating system of your database server machine is Windows 2003 Server.
- The operating system of the client machines to be used for WinSPC is Windows XP Pro.

NOTE: If a default value was modified during the installation of Oracle9*i* or an operating system is different from that stated here, adapt the instructions in this guide as needed to accommodate the modified value or differing operating system.

Prior to beginning this procedure, it's advised that you locate the hostname (or machine name) for the Oracle9*i* Database machine and the Oracle9*i* global database system identifier (SID), user name and password created during the installation of Oracle9*i* Database. Your database administrator should be able to provide this information.

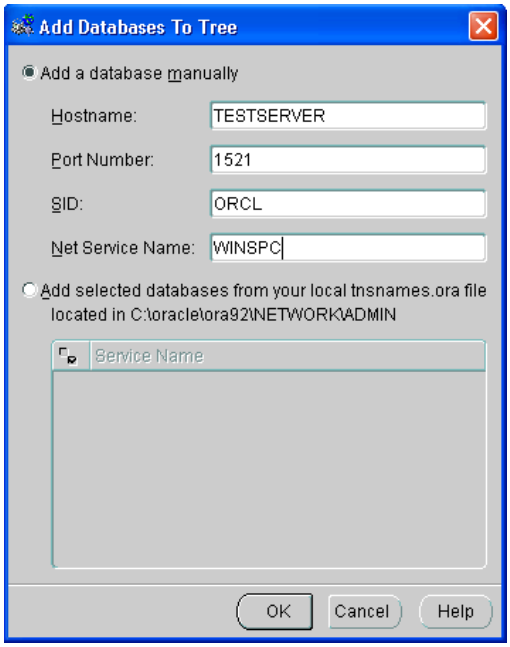
SERVER CONFIGURATION

Phase 1 of 4

Create a Tablespace

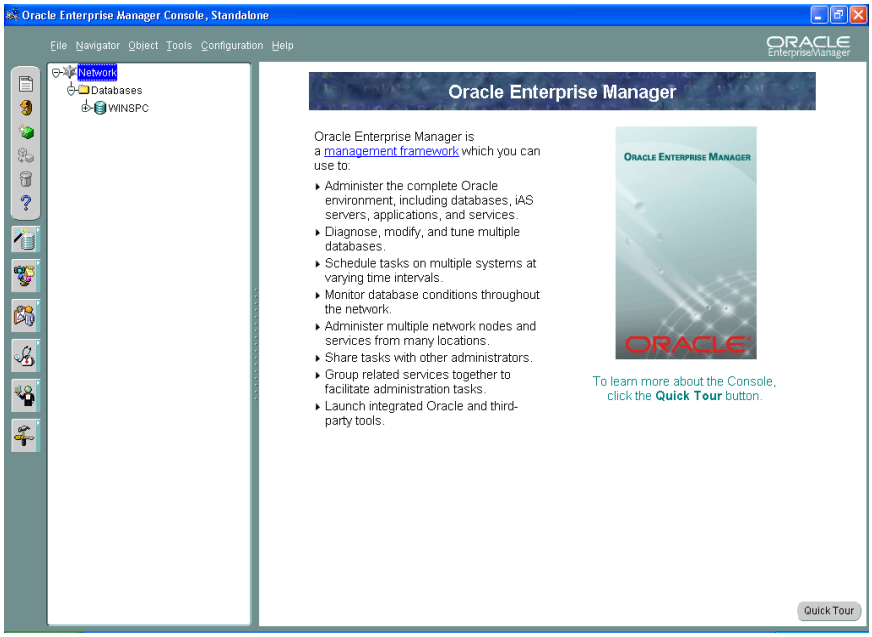
1. On the first WinSPC client machine, select **Start > All Programs > Oracle – OraHome92 > Enterprise Manager Console**. (See the third assumption at the beginning of this chapter for a definition of the first WinSPC client machine.)
2. In the **Oracle Enterprise Manager Console Login** dialog box, accept the **Launch standalone** default and click **OK**.

3. In the **Add Databases To Tree** dialog box:
   a. At **Hostname**, enter the machine name of the Oracle9i Database server.
   b. At **Port Number**, accept the default value of 1521 unless your DBA has instructed you to use a different port number.
   c. At **SID**, enter the system identifier for the Oracle global database to be used by WinSPC.
   d. At **Net Service Name**, overwrite the net service name that is automatically created with a name you want to use to uniquely identify the WinSPC net service. (The recommended net service name is **WINSPC**.)
   e. Click **OK**.

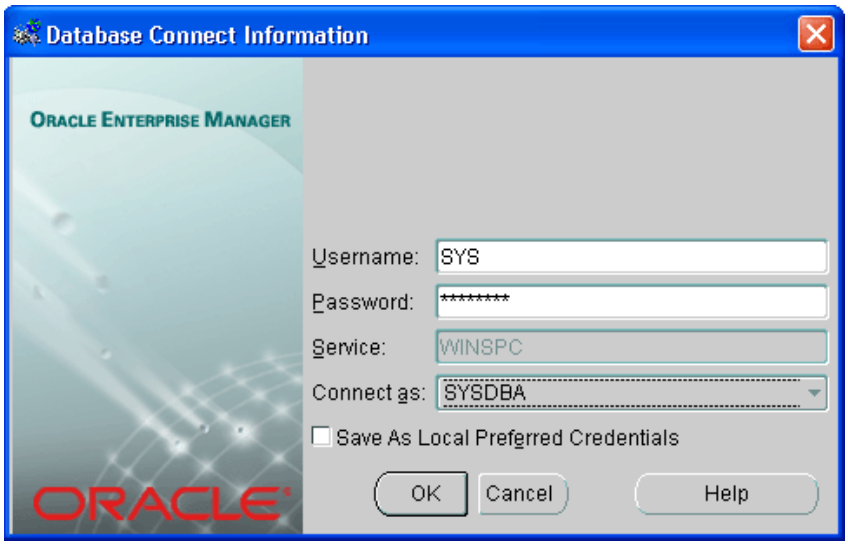


NOTE: If the **Add Databases To Tree** dialog box doesn't automatically appear after step 2, it can be displayed by selecting **Add Database To Tree** from the **Navigator** menu in the **Oracle Enterprise Manager Console**.

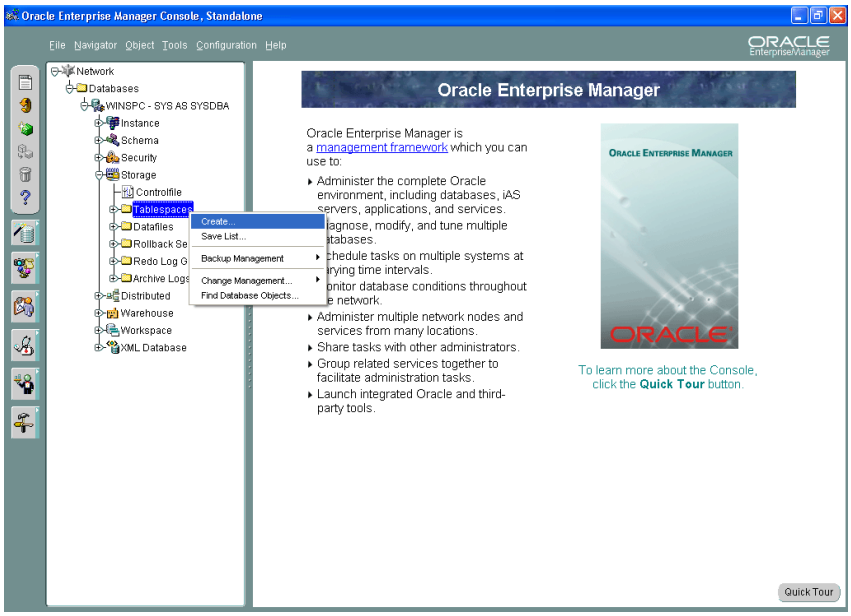
4. In the left pane of the **Oracle Enterprise Manager Console**, expand **Network > Databases** and click the plus sign to the left of the net service name from step 3d.



5. In the **Database Connect Information** dialog box that is displayed:
   a. At **Username**, enter the username for the global database.
   b. At **Password**, enter the password associated with this user name.
   c. At **Connect as**, select **SYSDBA** from the dropdown list.
   d. Click **OK**.



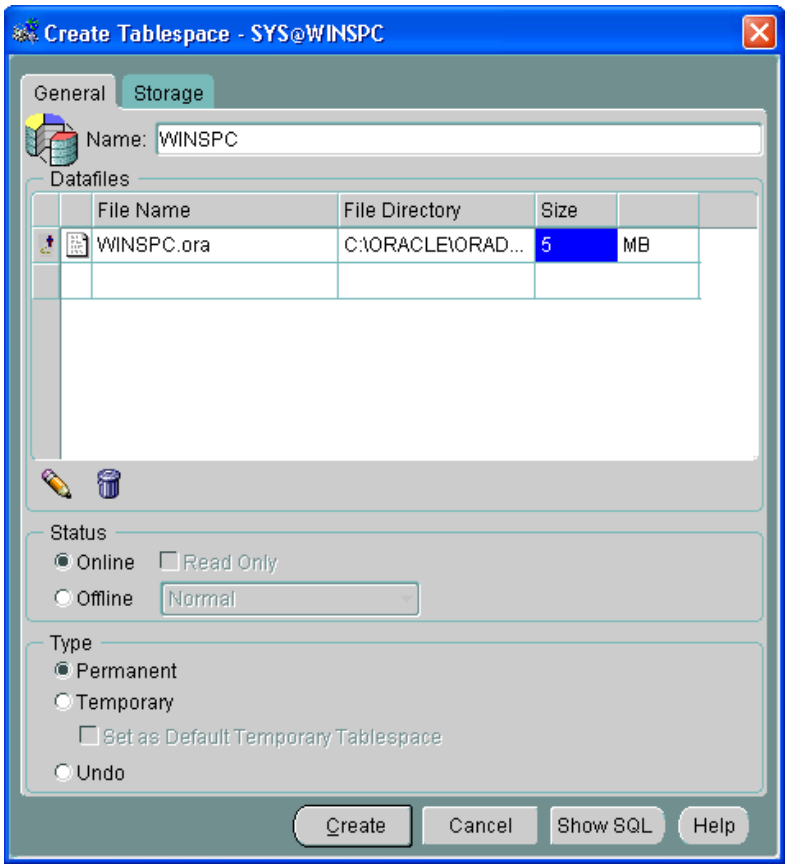
6. In the left pane, beneath the newly added net service name, expand **Storage**, right-click **Tablespaces** and, from the shortcut menu, select **Create**.



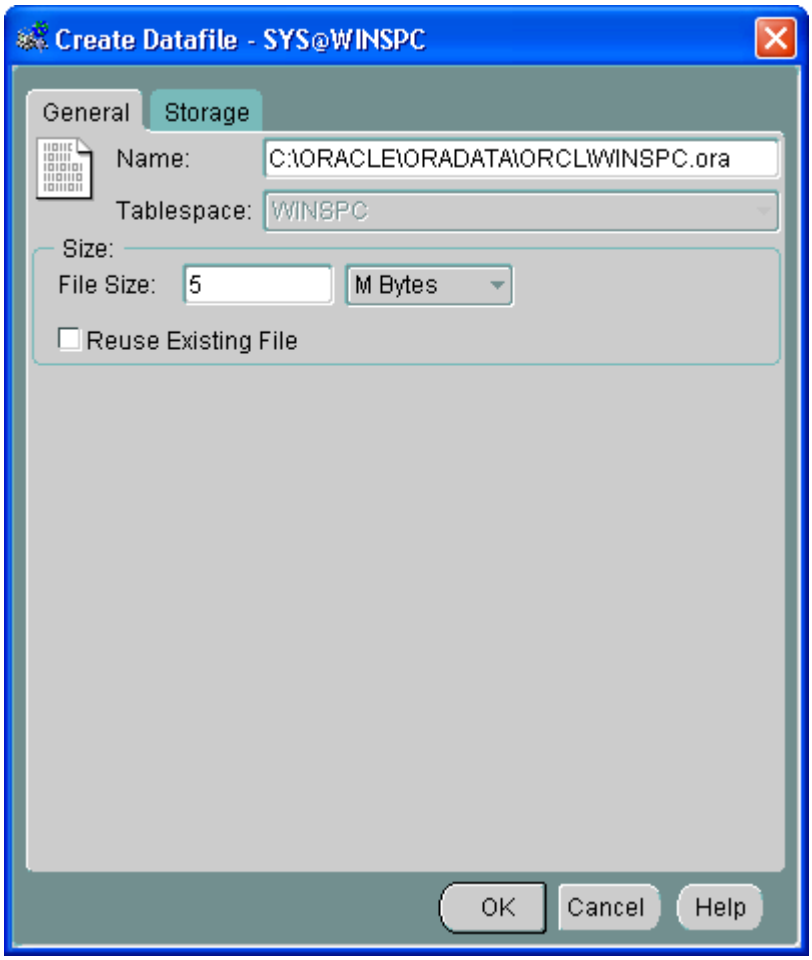
7. In the **Create Tablespace** dialog box, on the **General** tab:

   a. At **Name**, create and enter a name for the tablespace to be used for WinSPC. (Notice that, as you enter the name, it is automatically populated into the **Datafiles** section, forming a file name for the tablespace.)

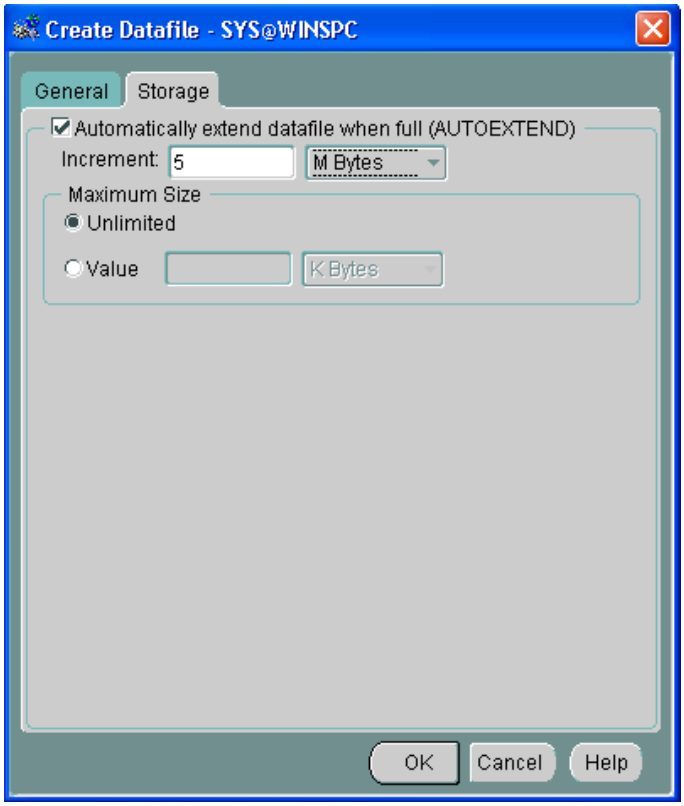
   b. At **Size**, double-click **5**.



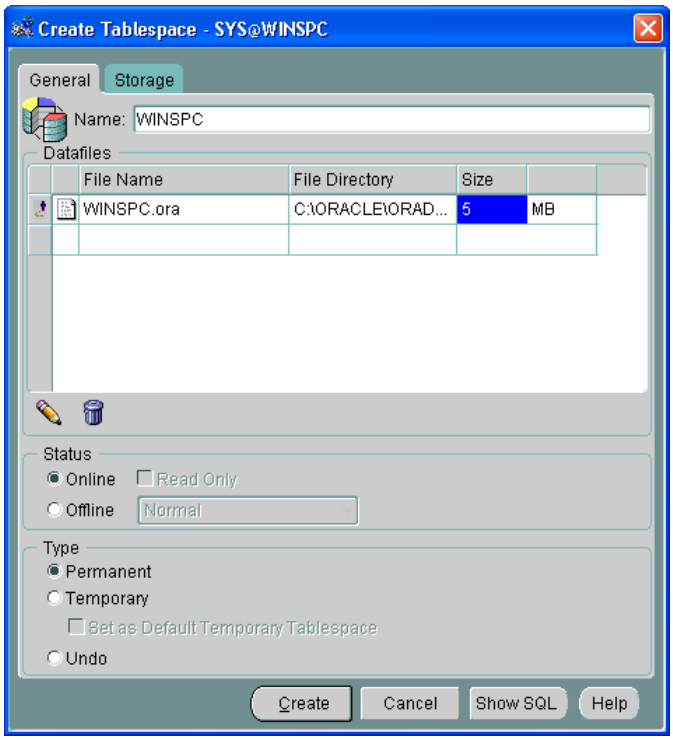
8. In the **Create Datafile** dialog box, click the **Storage** tab.



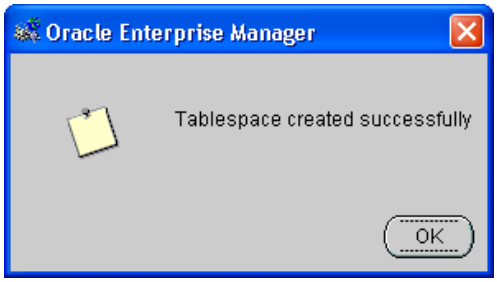
9. On the **Storage** tab:
   a. Check the **Automatically extend datafile when full (AUTOEXTEND)** check box.
   b. Specify **5 M Bytes** as the size by which the datafile should be incremented. (Your database administrator can monitor your database usage and tune this value as needed.)
   c. At **Maximum Size**, accept the default **Unlimited**.
   d. Click **OK**.



10. In the **Create Tablespace** dialog box, click **Create**.

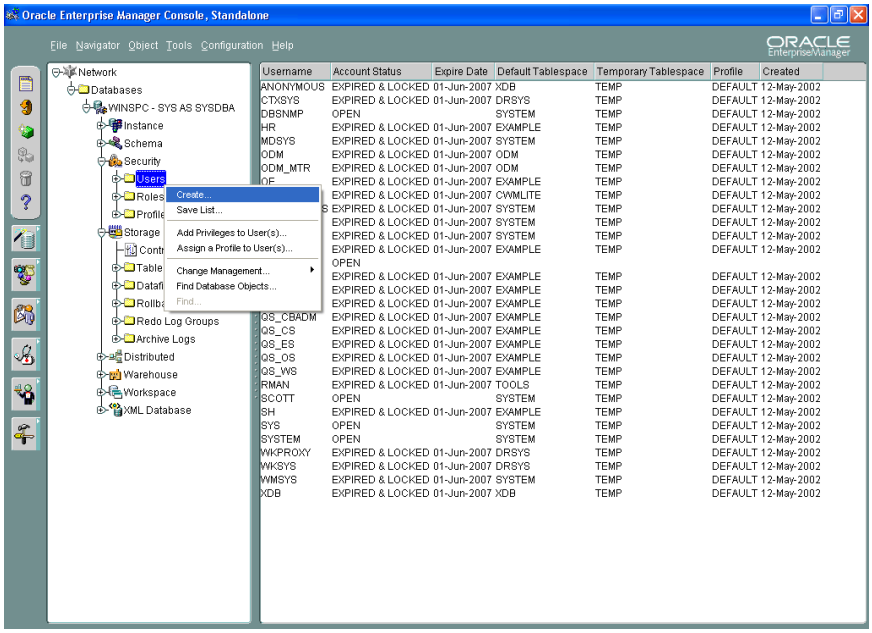


11. When the **Tablespace created successfully** message appears, click **OK**.



Create a Server Login

1. Still beneath the newly created net service name, expand **Security**, right-click **Users** and, from the shortcut menu, click **Create.**



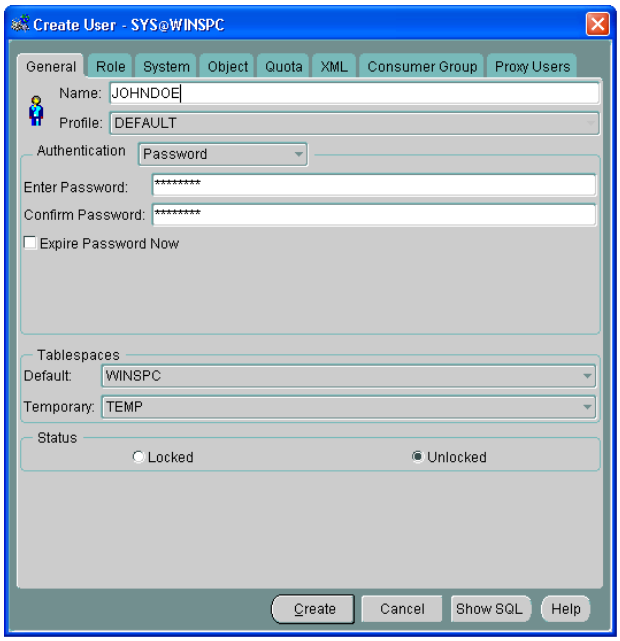
2. In the **Create User** dialog box, on the **General** tab:
   a. At **Name**, create and enter a name for the login. (The recommended user name is **JOHNDOE**.)
   b. At **Enter Password**, create and enter a sufficiently strong password for the login.
   c. At **Confirm Password**, reenter the password.

NOTE: The name and password entered here will be used by Oracle9*i* Database to authentic WinSPC client machines and allow authenticated machines access to the WinSPC tablespace. This name and password combination is not directly used by WinSPC users. WinSPC users will, later, be assigned individual user IDs and passwords. They will use these individual user IDs and passwords to log into the WinSPC application on WinSPC client machines.

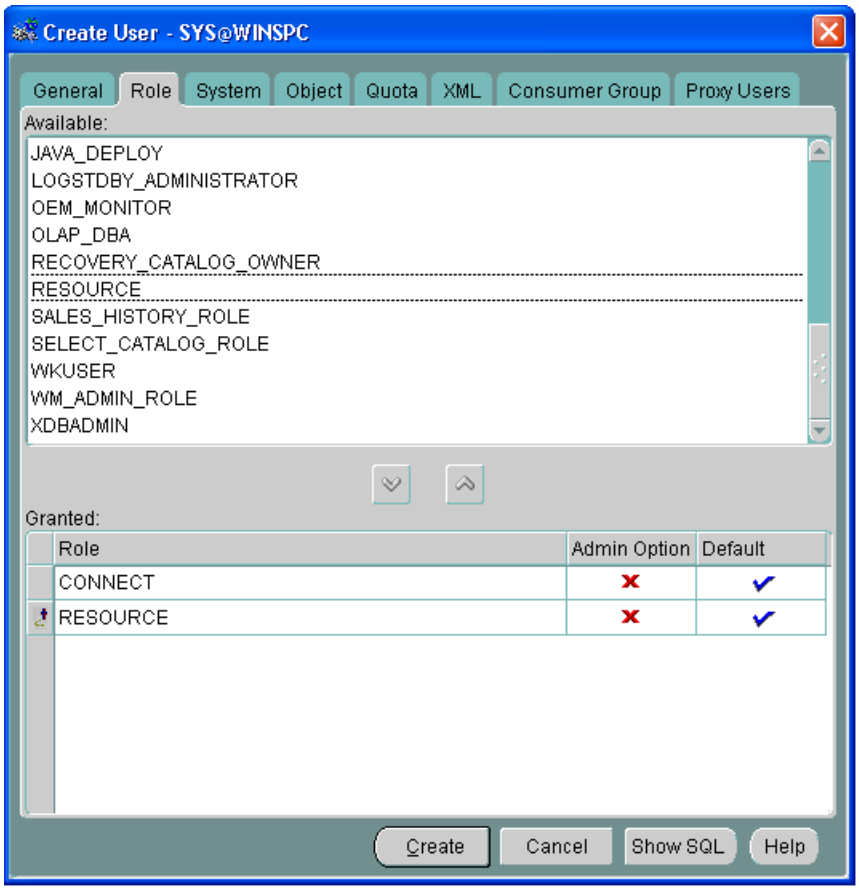
d. In the **Tablespaces** section, at **Default**, select the tablespace name created in step 7a of this chapter's **Create a Tablespace** section.

e. At **Temporary**, select **TEMP**.

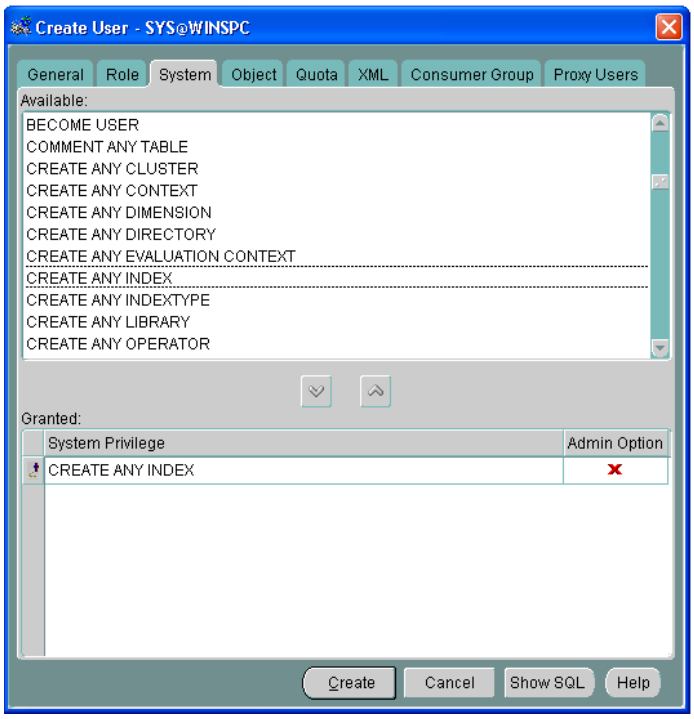
f. Leave Status as **Unlocked**.



3. Without clicking Create, click the **Role** tab and, in the **Available** list, double-click **RESOURCE**. This copies RESOURCE to the **Granted** list.



4. Click the **System** tab and, in the **Available** list, double-click **CREATE ANY INDEX**. This copies CREATE ANY INDEX to the **Granted** list.



5. Click **Create.**

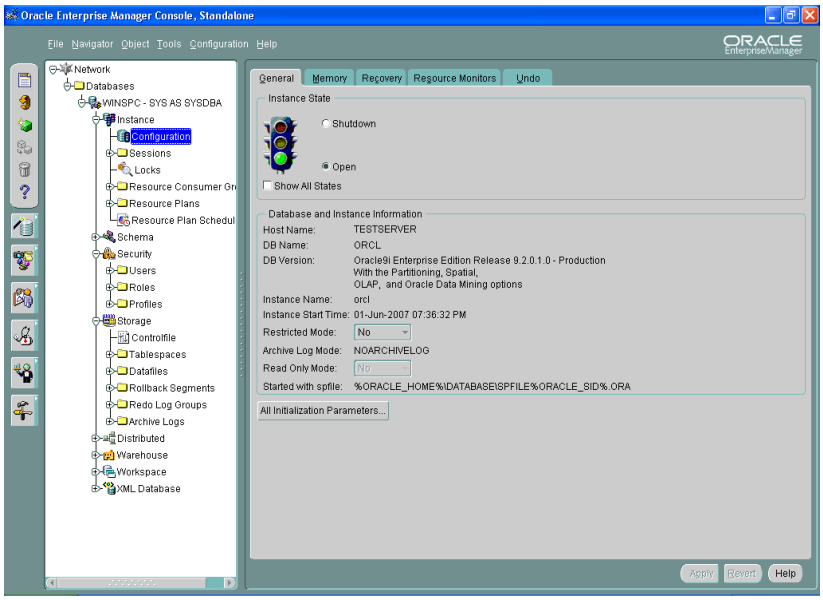
6. When the **User created successfully** message appears, click **OK**.

Set the Number of Open Cursors

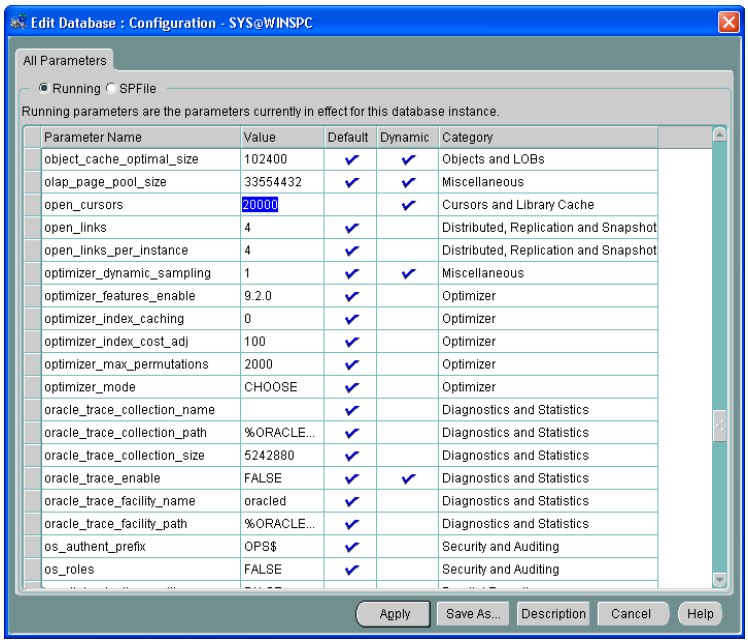
1. Calculate the required number of open cursors using this formula:

   *open_cursors = number of WinSPC licenses * 50*

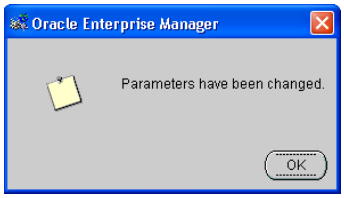
2. Still in the **Oracle Enterprise Manager Console**, in the left pane, expand **Instance**, click **Configuration** and then, in the right pane, click **All Initialization Parameters** toward the bottom of the **General** tab.



3. In the **Edit Database: Configuration** dialog box, scroll to **open_cursors,** replace the default number of open cursors in the **Value** column with the number you calculated in step 1 and click **Apply**.



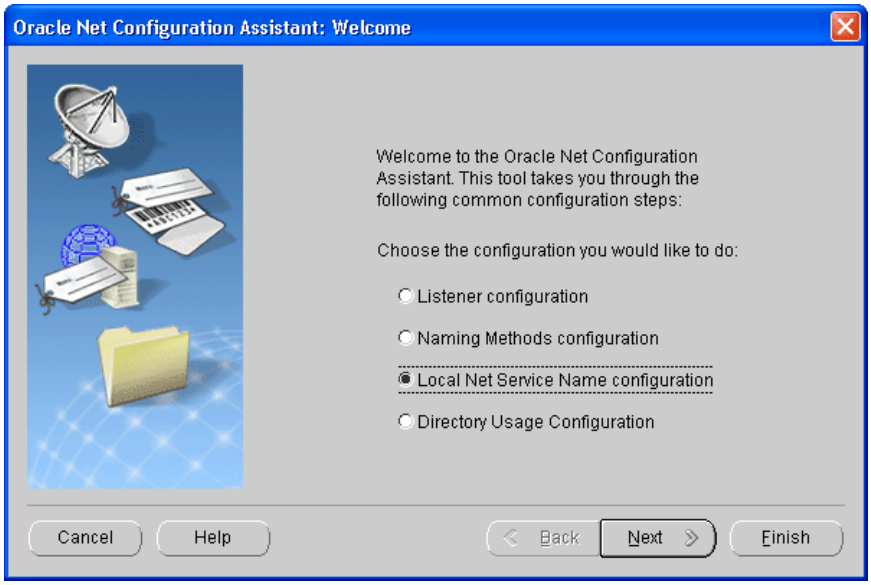
4. When the **Parameters have been changed** message appears, click **OK**.



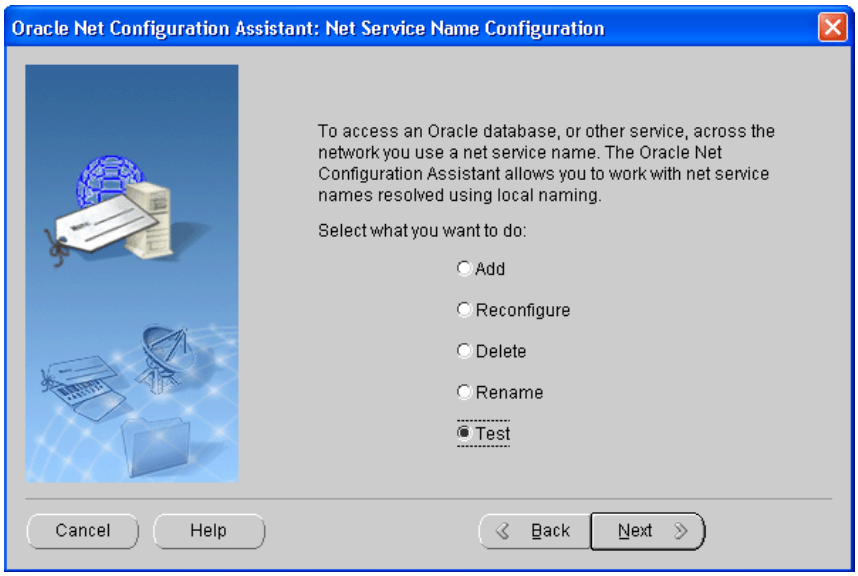
5. Close the **Oracle Enterprise Manager Console** by clicking **File > Exit**.

Test the Local Net Service Name

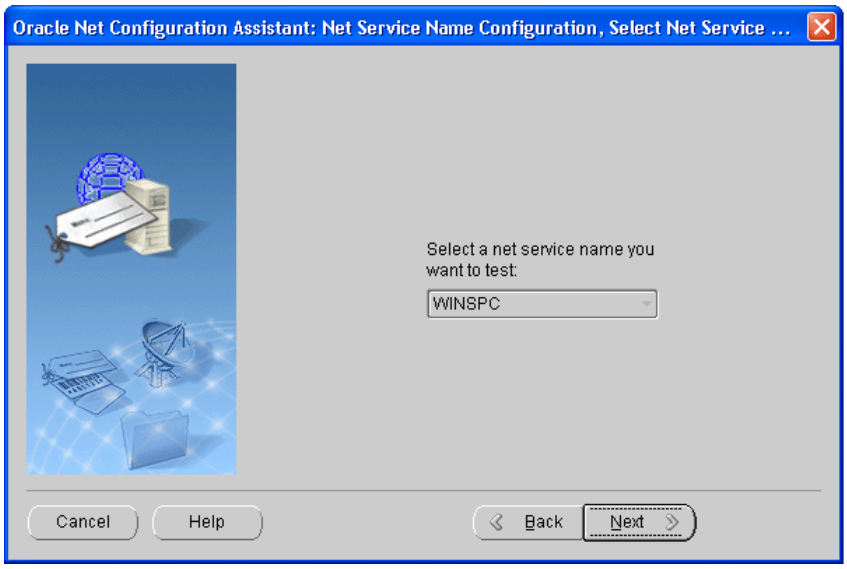
1. Still on the first client machine, click **Start > All Programs > Oracle-OraHome92 > Configuration and Migration Tools > Net Configuration Assistant.**
2. In the **Oracle Net Configuration Assistant: Welcome** dialog box, select **Local Net Service Name configuration** and click **Next**.



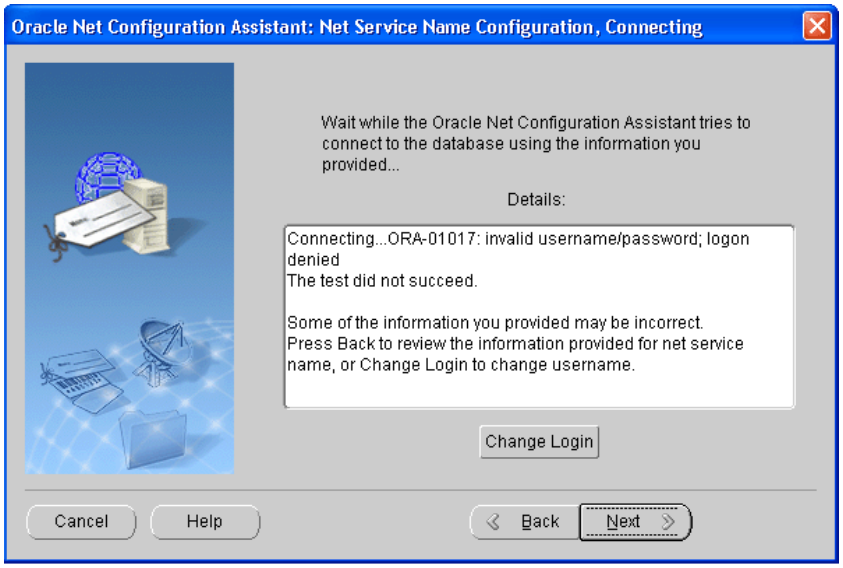
3. Select **Test** and click **Next**.



4. Select the net service name you specified in step 3d of this chapter's **Create a Tablespace** section, if it isn't already selected, and click **Next**.

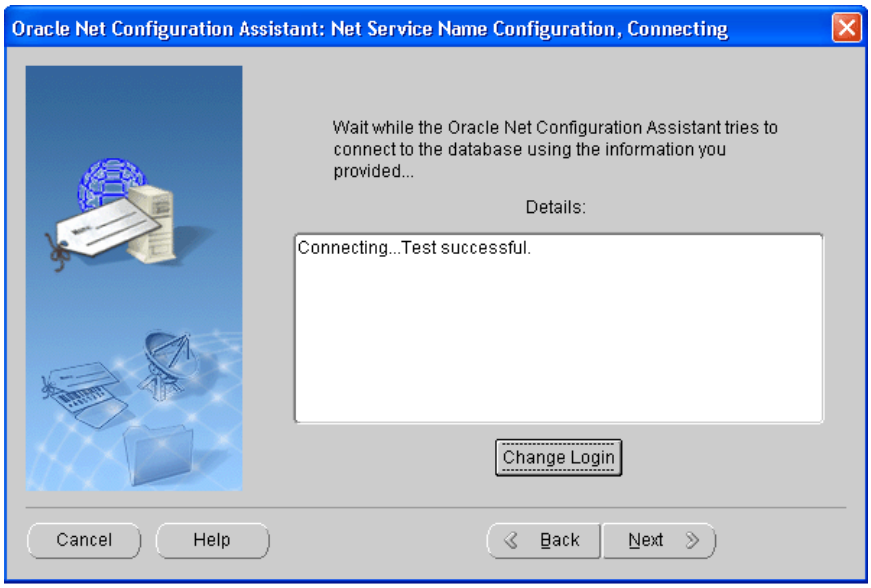


5. In the next dialog box, which indicates the test did not succeed, click the **Change Login** button.

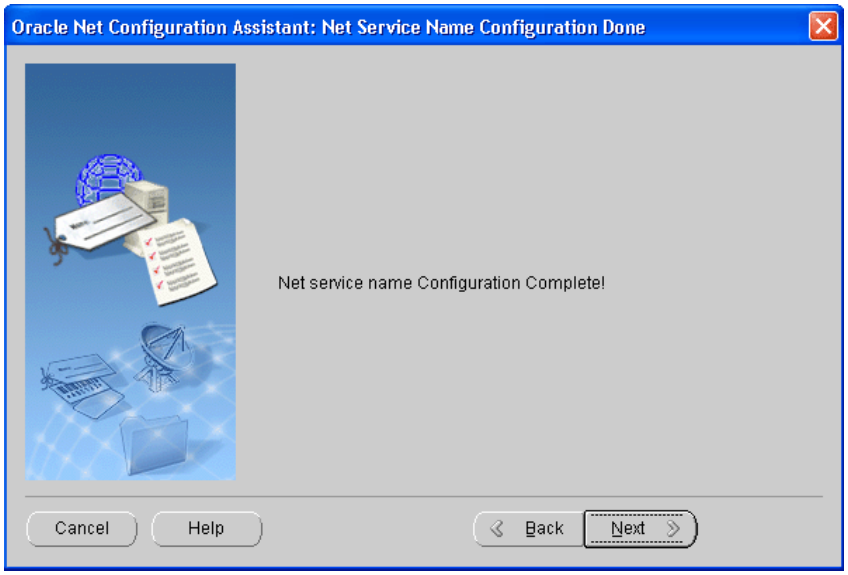


6. In the **Change Login** dialog box, replace the default username and password with the username and password you created in step 2 of this chapter's **Create a Server Login** section and click **OK**.

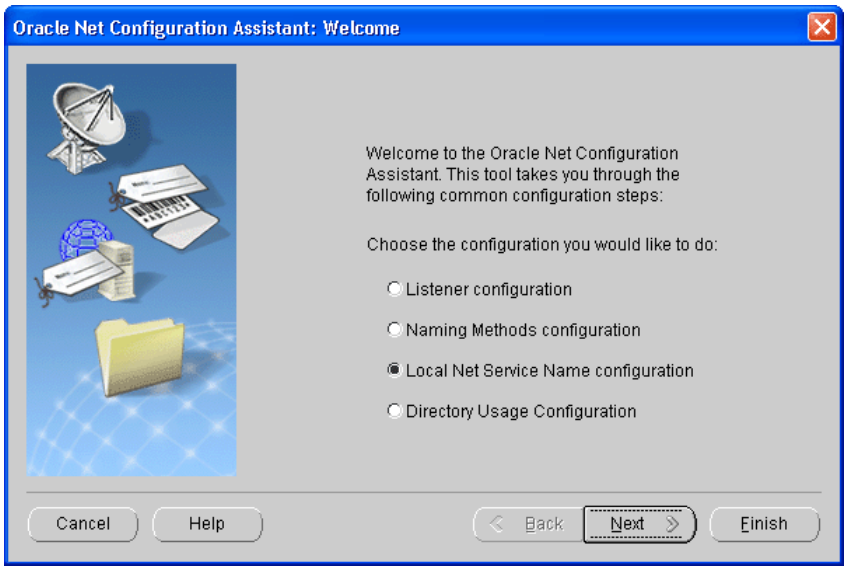
7. When the test is indicated as having succeeded, click **Next**.



8. Click **Next** when the net service name configuration is indicated as complete.



9. On the **Welcome** dialog box, click **Finish**.



THIS COMPLETES PHASE 1 OF 4.

GO TO THE NEXT PAGE AND COMPLETE PHASE 2.

Phase 2 of 4 **FIRST CLIENT INSTALL AND CONFIGURATION (INITIAL STEPS)**

This section concerns the installation and configuration of WinSPC on the first WinSPC client machine. (See the third assumption at the beginning of this chapter for a definition of the first WinSPC client machine.)

If your implementation employs Microsoft Terminal Services, see the discussion on page 1 of this guide for direction on whether to make your first client the Microsoft Terminal Services server or another computer.

1. Create a folder on a network file server accessible by all client machines that will run WinSPC. This folder's primary purpose is to facilitate the installation and configuration of WinSPC on all clients other than the first client. (The recommended name for this folder is **WinSPCRemote**.)
2. Share this folder and grant domain administrators a minimum of **Change** *share* permissions and **Modify** *security* permissions to it. (For a procedure on granting *share* or *security* permissions, see **Appendix D: Granting Share and Security Permissions.**)

   NOTE: If your WinSPC implementation is part of a workgroup rather than a domain, grant these **Change** and **Modify** permissions to the local administrator who will install and configure WinSPC on the first WinSPC client machine.
3. Log into Windows on the first WinSPC client machine as a domain administrator who also has local administrator privileges, if you are not already logged in as such an administrator.

   NOTE: If the first WinSPC client machine is part of a workgroup instead of a domain, log in as a local administrator.

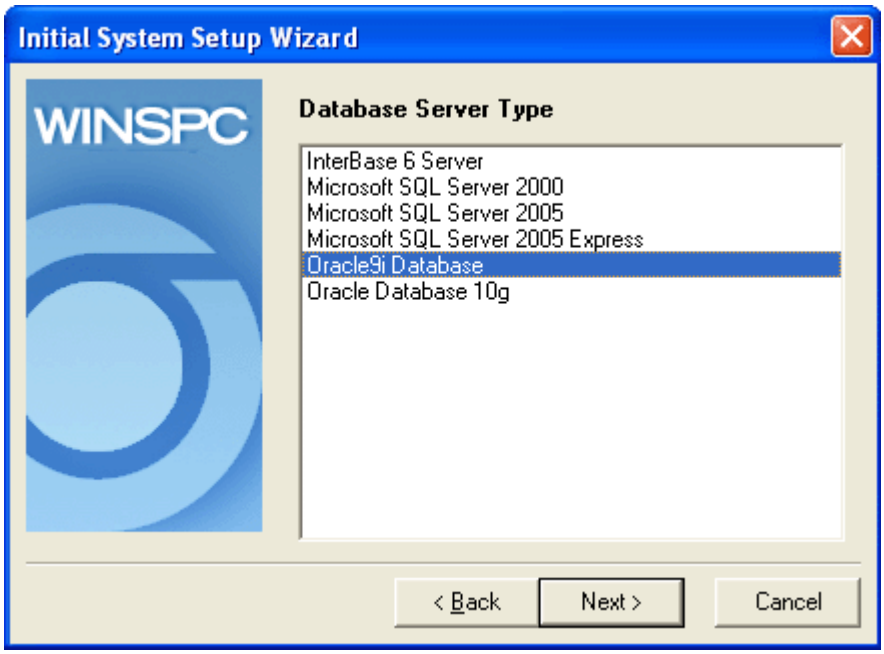
4. Insert the WinSPC CD into the first WinSPC client's CD-ROM drive. If autorun is enabled on the client, the CD will start automatically. If autorun is not enabled:
   a. Click **Start > My Computer**.
   b. In the **My Computer** dialog box, double-click your CD-ROM drive.
   c. When the list of files appears, double-click **Setup.exe**.
5. When the **WinSPC Setup** screen appears, click **Install WinSPC**.
6. Install WinSPC by following the setup prompts. During this installation, after the step when programs files are copied, close the folder that automatically opens. When the **Setup Complete** screen appears, click **Finish**.

   NOTE: The setup prompts are intended to be self-explanatory. Consequently, they are not detailed here. If you have a question about a prompt or want to be directed step-by-step through the setup wizard, see **Appendix A: WinSPC Setup Prompts.**
7. Complete **Appendix B: Installing NJWin for an Asian Language** if the first client machine will need to run WinSPC in an Asian language or you would like to run the Initial System Setup Wizard in an Asian language. (The Initial System Setup Wizard is the tool you will use next in this first client configuration process.)
8. Exit the **WinSPC Setup** screen by clicking the **X** in the upper right corner.
9. Remove the WinSPC CD from the CD-ROM drive.

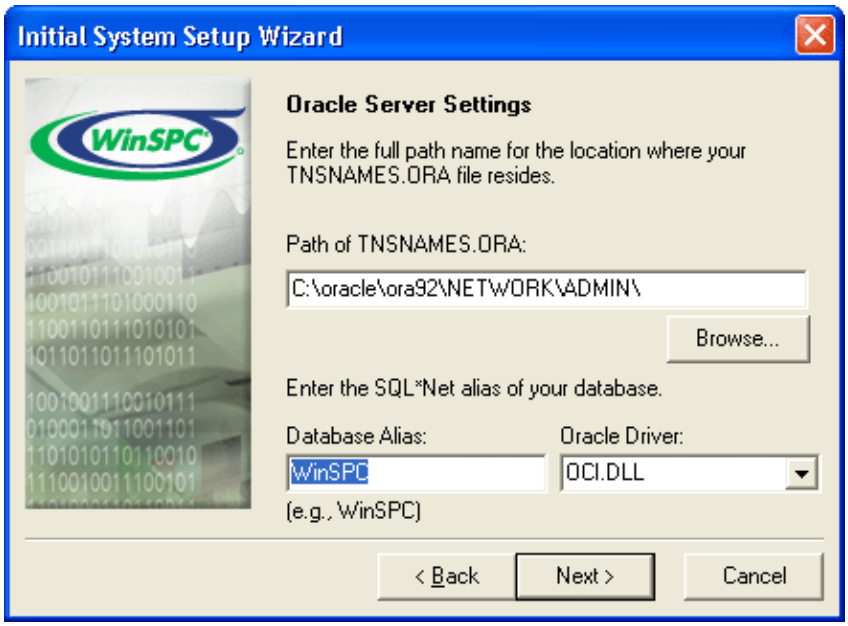
10. Run **WinSPC**. The default path for doing this is **Start > All Programs > WinSPC > WinSPC CS.** This launches the Initial System Setup Wizard.
11. On the **Language** screen, from the **Select language** list, choose a language and click **Next**.

NOTE: The language selected here becomes the language in which the remainder of the Initial System Setup Wizard will be run. It also becomes the system-wide default language for WinSPC. (This default language can be changed at any time following the completion of the Initial System Setup Wizard. See the Help in WinSPC for more information on default languages once the configuration of the first WinSPC client is complete.)

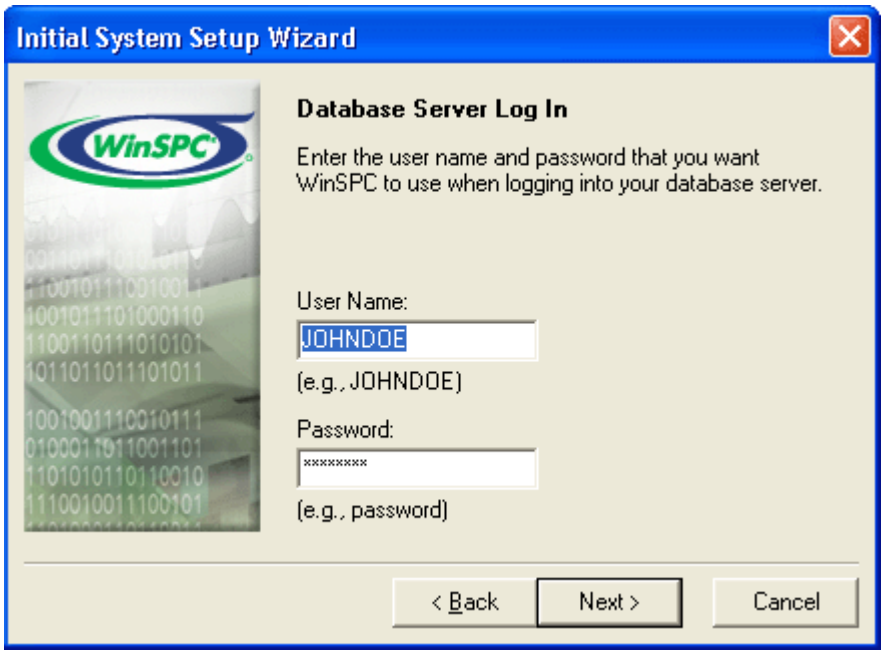
12. On the **Database Server Type** screen, select **Oracle9*i* Database** and click **Next.** (Notice this screen is displayed in the language selected during the preceding step.)



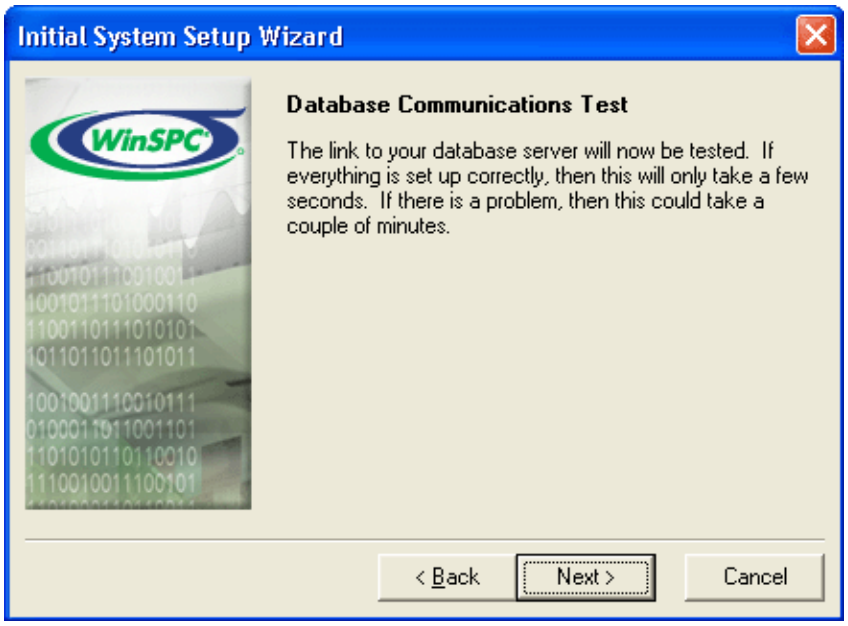
13. On the **Oracle Server Settings** screen:
    a. At **Path of TNSNAMES.ORA**, accept the default location.
    b. In the **Database Alias** text box, enter the **Net Service Name** you chose in step 3d of this chapter's **Create a Tablespace** section.
    c. At **Oracle Driver**, leave the default **OCI.DLL** selected.
    d. Click **Next.**



14. On the **Database Server Log In** screen, enter the tablespace login **User Name** and **Password** created in step 2 of this chapter's **Create a Server Login** section and click **Next.**



15. On the **Database Communications Test** screen, click **Next.**

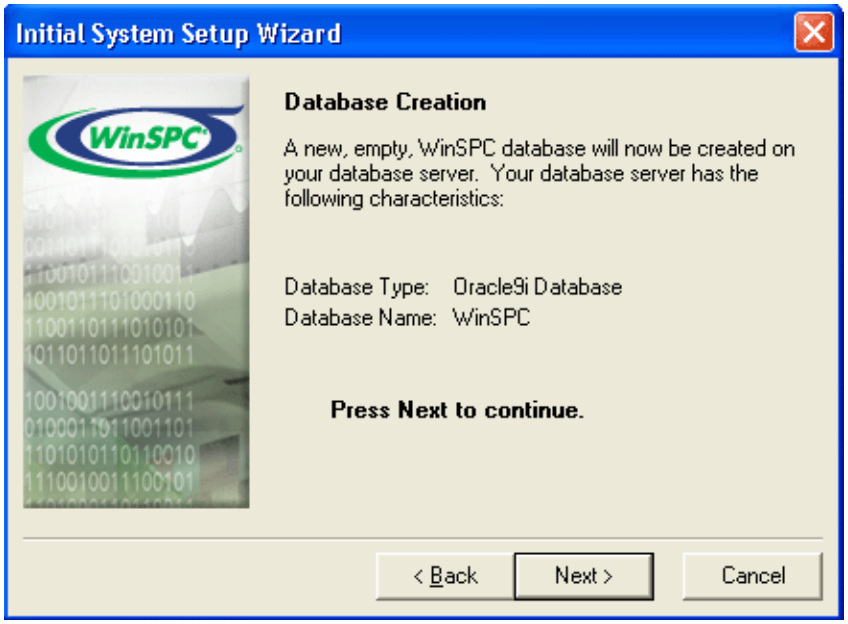


NOTE: In the event the test fails:

- If the error message displayed reads **Unknown network error. ORA-12154: TNS: could not resolve service name.**, click the **Back** button three times and reenter the database alias, ensuring you have the correct name and that it is spelled correctly. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.

- If the error message reads **Unknown user name or password.**, click the **Back** button twice and reenter the server user name and password, ensuring you have the correct user name and password and that these are spelled correctly. Also, since passwords are case sensitive, ensure the appropriate capitalization is used for the password. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.

16. On the **Database Creation** screen, click **Next**. This creates the WinSPC schema within the WinSPC database.



17. If you selected a language other than English in step 11 of this section, an **Add Language** screen appears once the WinSPC schema is created. In this case:

    a. Insert the language disk for the selected language into your floppy drive and click the **OK** button.

    b. In the message asking if you want to proceed with the addition of the detected language, click **OK**.

    c. If a message indicating the detected language has already been installed appears, click **OK**.

    d. Allow the **Adding New Language** progress bar to complete.

    e. When the **You may now select the desired language in the System Settings, Station Setup, or User Setup** message appears, click **OK**.

    f. If the **Add Language** screen reappears, click **Cancel**.

    g. Remove the language disk from the floppy drive.

    NOTE: Language disks are included in your WinSPC materials. If you didn't order a language disk and, consequently, did not receive one, click the **Cancel** button and complete the Initial System Setup Wizard without adding the language. Later, you can order the language disk and, once it arrives, add the language using the **Add Language** option on the **Administrator** window's **Tools** menu in WinSPC. Until the language is added, you'll be restricted to running WinSPC in English. (The remainder of the Initial System Setup Wizard continues to run in the selected language whether or not a language is added from a language disk.)

THIS COMPLETES PHASE 2 OF 4.

GO TO **CHAPTER 6: FIRST CLIENT CONFIGURATION (FINAL STEPS)** AND COMPLETE PHASE 3.

CHAPTER 5: ORACLE 10*g*

ASSUMPTIONS

The instructions in this chapter are based on the following assumptions:

- Oracle Database 10*g* software is installed on your database server.
- An Oracle Database 10*g* global database of the **Enterprise Edition** installation type is created and running on your database server and you have been authorized to use part of this global database for WinSPC.
- Oracle Database 10*g* Client is installed on the first WinSPC client machine and that installation is of the **Administrator** type (as compared to the **Runtime** or **Custom** types). (The first WinSPC client machine simply refers to the first computer on which you want to install WinSPC. This computer can be any client machine on your network.)
- Oracle Database 10*g* is also installed on all additional client machines which are to run WinSPC and these installations are of the **Runtime** type.
- The default values presented by Oracle Database 10g and Oracle Database 10g Client during the installation process were accepted without modification.
- Any firewalls between your database server and the client machines to be used for WinSPC are properly configured to permit database traffic.

- For implementations employing a Microsoft Terminal Services environment, Microsoft Terminal Services is properly installed and configured on the server designated as your Microsoft Terminal Services server.

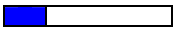
  NOTE: You may find that users who don't have administrative permissions to the Microsoft Terminal Services server are unable to launch WinSPC via a Remote Desktop Protocol session. This is a circumstance specific to Oracle 9*i* Database and Oracle Database *10g*. It can be remedied by changing the **Permission Capability** on the Microsoft Terminal Services server from **Full Security** to **Relaxed Security**. Alternatively, consult your network administrator and/or Oracle DBA for other remedies.

- The operating system of your database server machine is Windows 2003 Server.
- The operating system of the client machines to be used for WinSPC is Windows XP Pro.

NOTE: If a default value was modified during the installation of Oracle Database 10*g* or an operating system is different from that stated here, adapt the instructions in this guide as needed to accommodate the modified value or differing operating system.

Prior to beginning this procedure, it's advised that you locate the hostname (or machine name) for the Oracle Database 10*g* machine and the Oracle Database 10*g* global database system identifier (SID), user name and password created during the installation of Oracle Database 10*g*. Your database administrator should be able to provide this information.

SERVER CONFIGURATION **Phase 1 of 4**

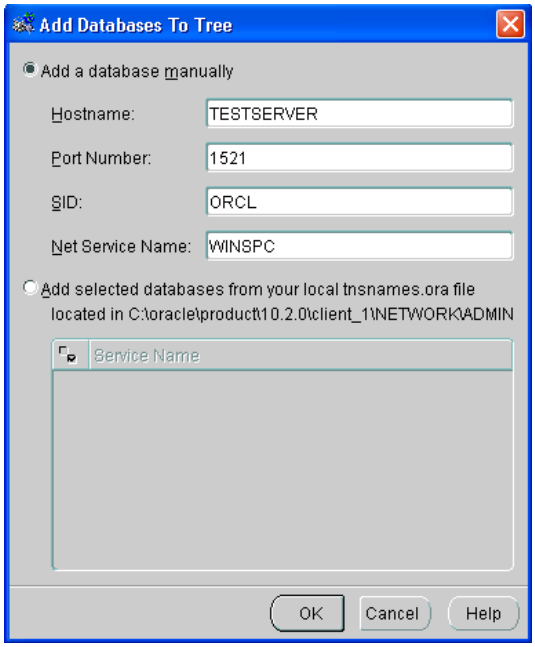


Create a Tablespace

1. On the first WinSPC client machine, select **Start > All Programs > Oracle – OraClient10g_home1 > Enterprise Manager Console**. (See the third assumption at the beginning of this chapter for a definition of the first WinSPC client.)

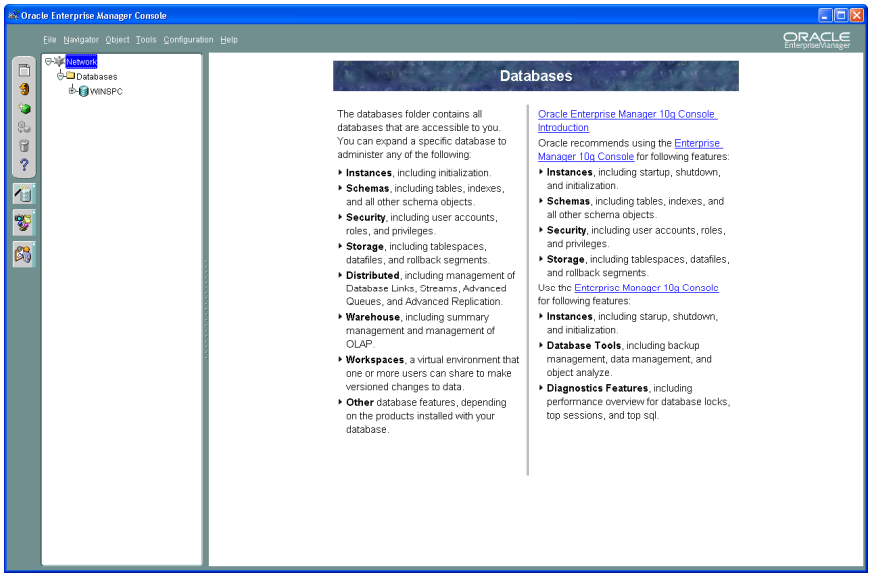
   NOTE: If the **Enterprise Manager Console** is not listed, it is probably because the **Administrator** installation type was not selected when Oracle Database 10*g* Client was installed. In this case, reinstall Oracle Database 10*g* Client, selecting **Administrator** in the **Select Installation Type** dialog box and then return to this step.

2. In the **Add Databases To Tree** dialog box:
   a. At **Hostname**, enter the machine name of the Oracle Database 10*g* server.
   b. At **Port Number**, accept the default value of 1521 unless your DBA has instructed you to use a different port number.
   c. At **SID**, enter the system identifier for the Oracle global database to be used by WinSPC.
   d. At **Net Service Name**, overwrite the net service name that is automatically created with a name you want to use to uniquely identify the WinSPC net service. (The recommended net service name is **WINSPC**.)
   e. Click **OK.**

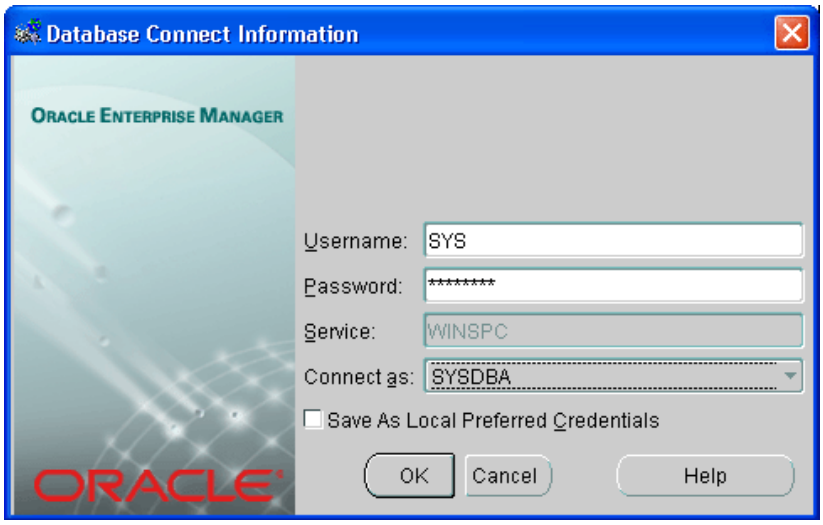


NOTE: If the **Add Databases To Tree** dialog box doesn't automatically appear after step 1, it can be displayed by selecting **Add Database To Tree** from the **Navigator** menu in the **Oracle Enterprise Manager Console**.

3. In the left pane of the **Oracle Enterprise Manager Console**, expand **Network > Databases** and click the plus sign to the left of the net service name from step 2d.

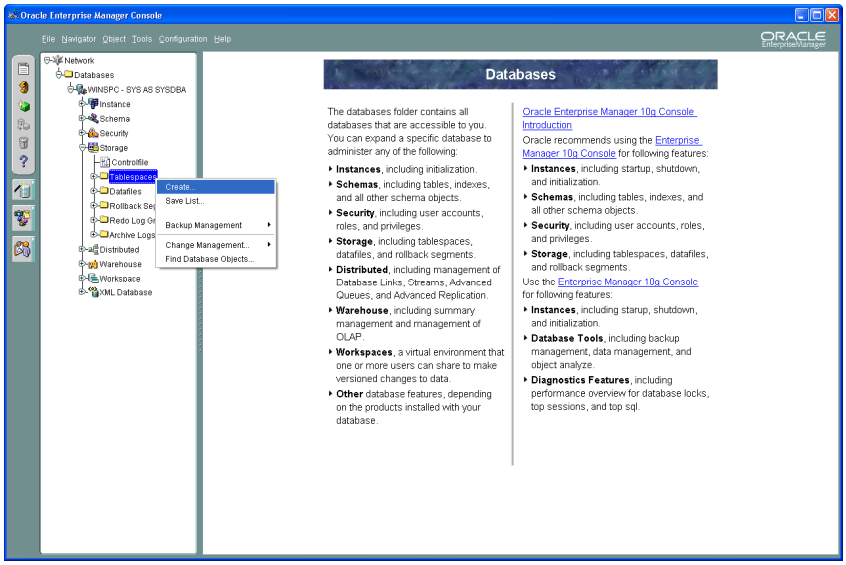


4. In the **Database Connect Information** dialog box that is displayed:
   a. At **Username**, enter the username for the global database.
   b. At **Password**, enter the password associated with this user name.
   c. At **Connect as**, select **SYSDBA** from the dropdown list.
   d. Click **OK.**



5. In the left pane, beneath the newly added net service name, expand **Storage**, right-click **Tablespaces** and, from the shortcut menu, select **Create**.

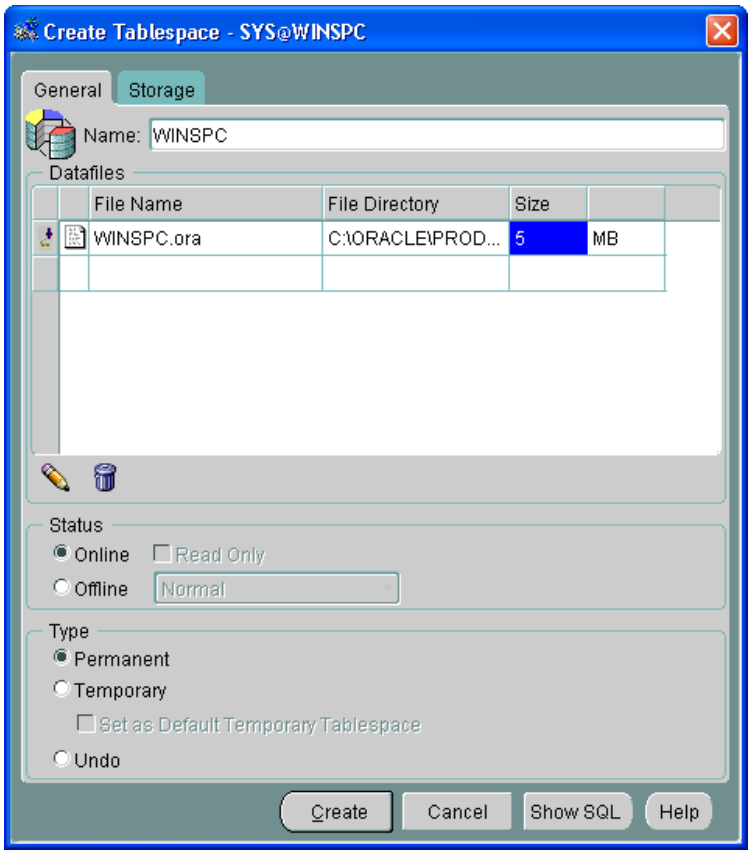
   NOTE: If you do not see **Create** on the shortcut menu, press the **ESC** button to exit the menu and right-click **Tablespaces** again.



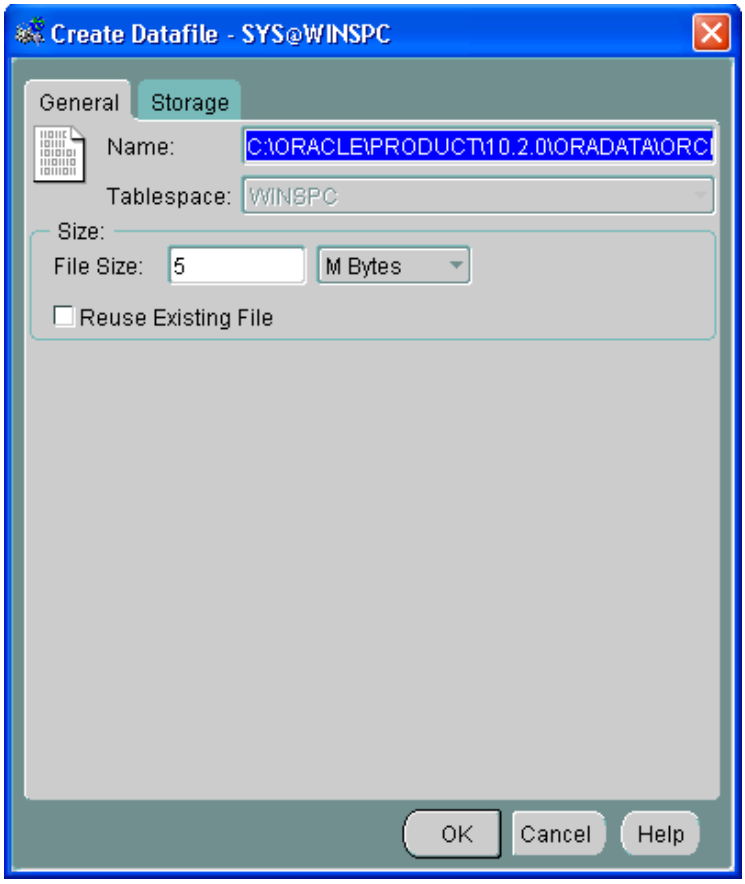
6. In the **Create Tablespace** dialog box, on the **General** tab:

   a. At **Name**, create and enter a name for the tablespace to be used for WinSPC. (Notice that, as you enter the name, it is automatically populated into the **Datafiles** section, forming a file name for the tablespace.)

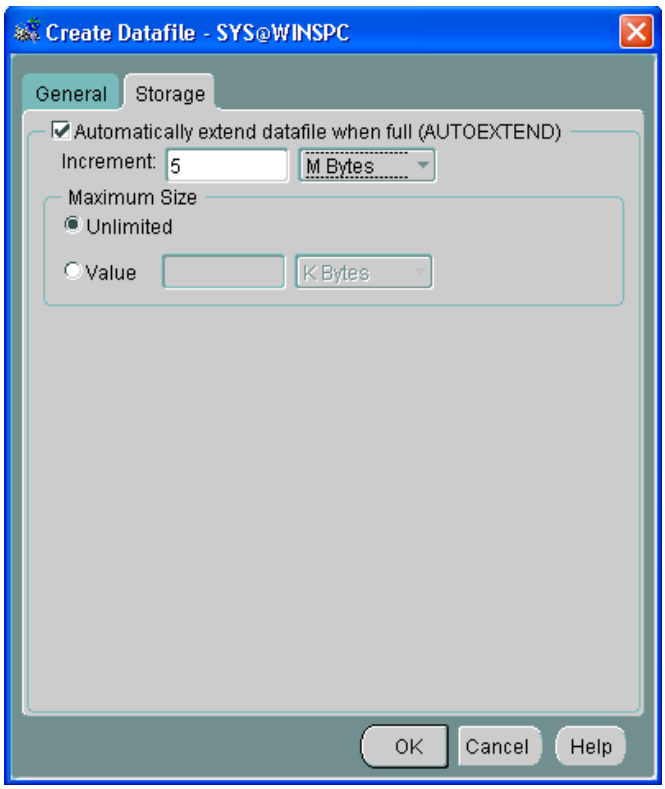
   b. At **Size**, double-click **5**.



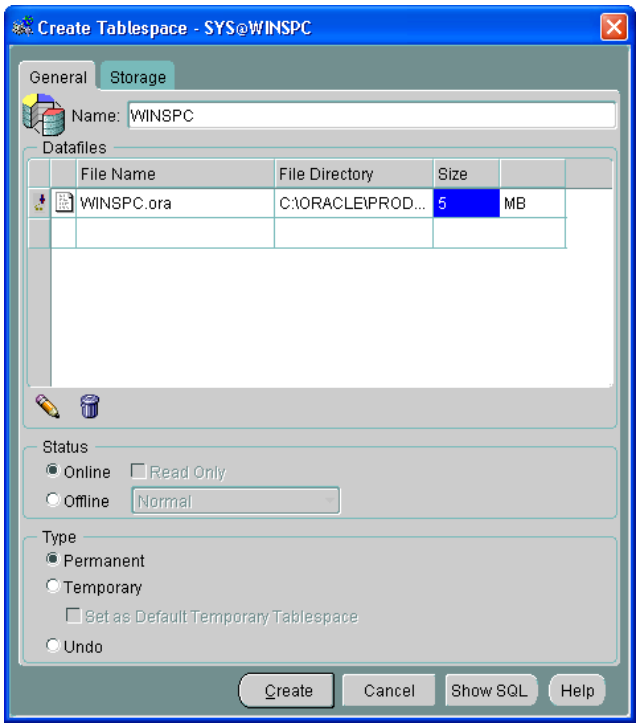
7. In the **Create Datafile** dialog box that is displayed, click the **Storage** tab.



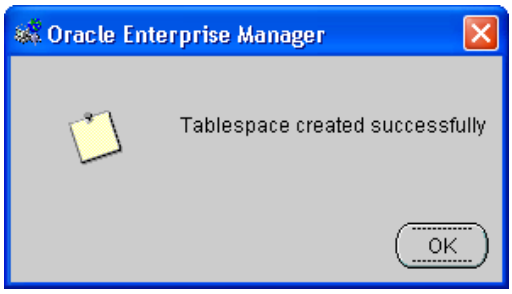
8. On the **Storage** tab:
   a. Check the **Automatically extend datafile when full (AUTOEXTEND)** check box.
   b. Specify **5 M Bytes** as the size by which the datafile should be incremented. (Your database administrator can monitor your database usage and tune this value as needed.)
   c. At **Maximum Size**, accept the default **Unlimited**.
   d. Click **OK.**



9. In the **Create Tablespace** dialog box, click **Create**.

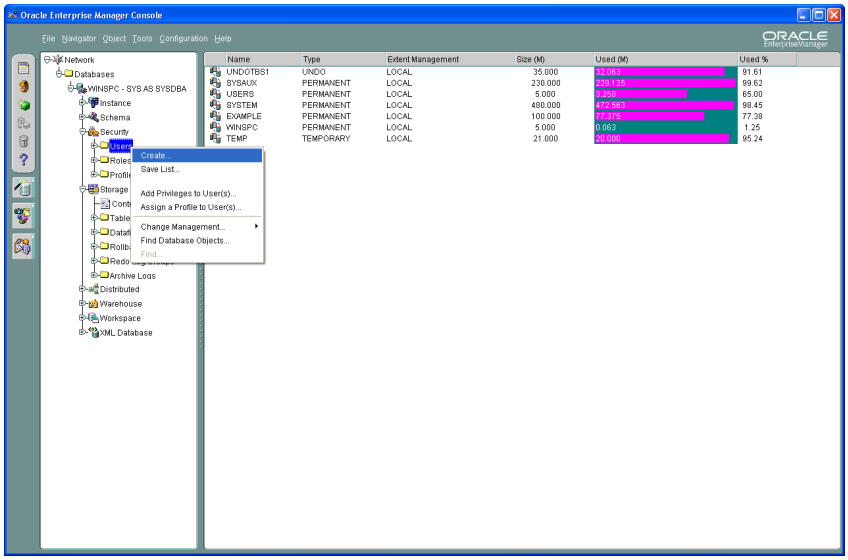


10. When the **Tablespace created successfully** message appears, click **OK**.



Create a Server Login

1. Still beneath the newly created net service name, expand **Security,** right-click **Users** and, from the shortcut menu, click **Create.**



2. In the **Create User** dialog box, on the **General** tab:

   a. At **Name**, create and enter a name for the login. (The recommended user name is **JOHNDOE**.)

   b. At **Enter Password**, create and enter a sufficiently strong password for the login.

   c. At **Confirm Password**, reenter the password.

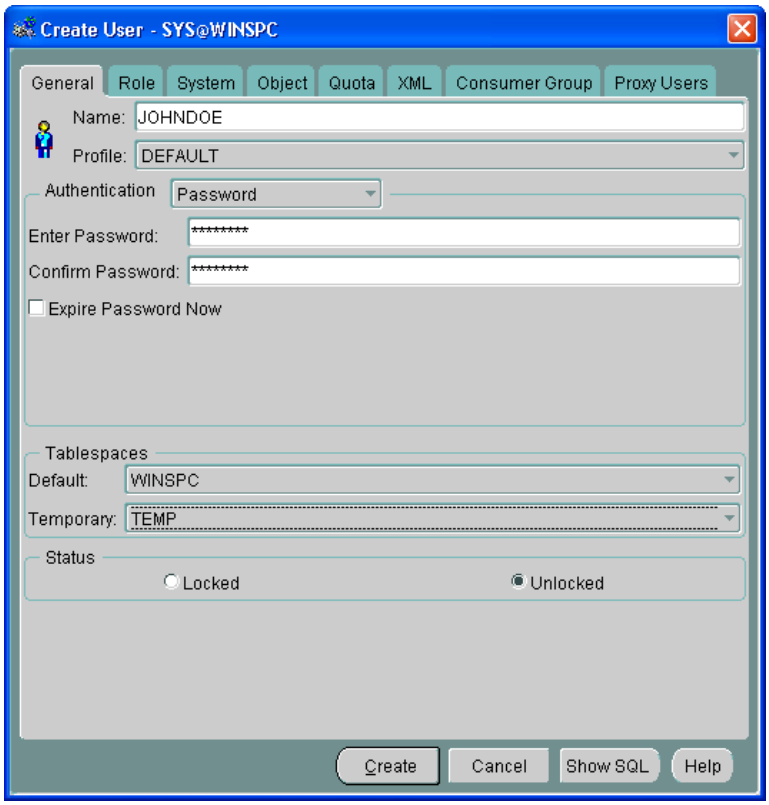
   NOTE: The name and password entered here will be used by Oracle Database 10g to authentic WinSPC client machines and allow authenticated machines access to the WinSPC tablespace. This name and password combination is not directly used by WinSPC users.

WinSPC users will, later, be assigned individual user IDs and passwords. They will use these individual user IDs and passwords to log into the WinSPC application on WinSPC client machines.

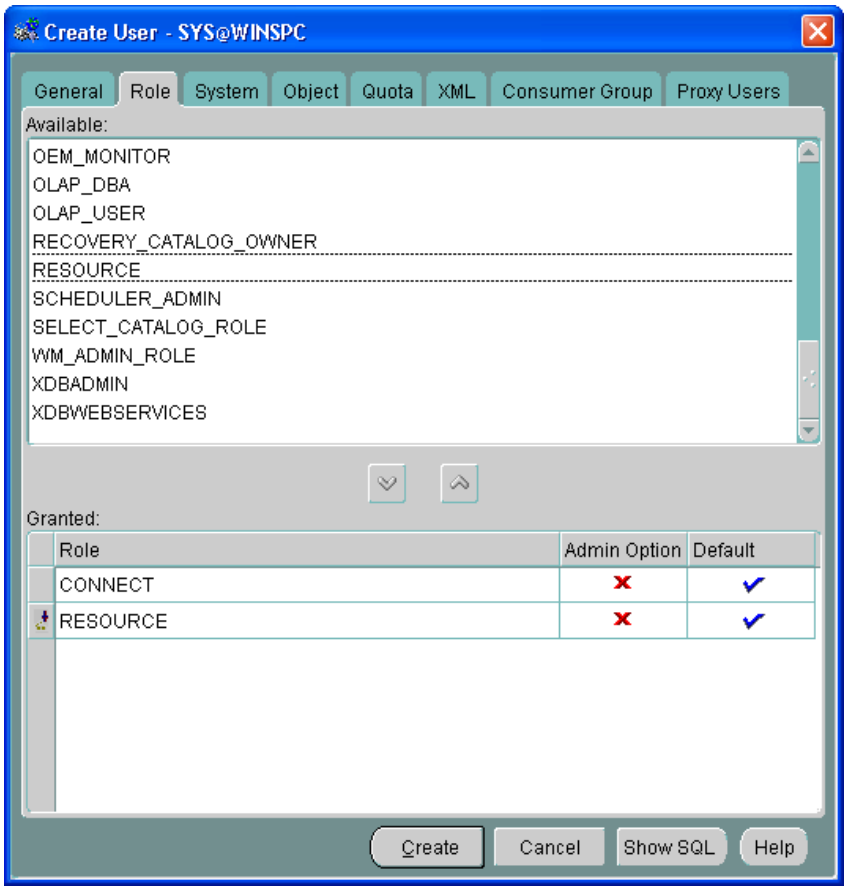
d. In the **Tablespaces** section, at **Default**, select the tablespace name created in step 6a of this chapter's **Create a Tablespace** section.

e. At **Temporary**, select **TEMP**.

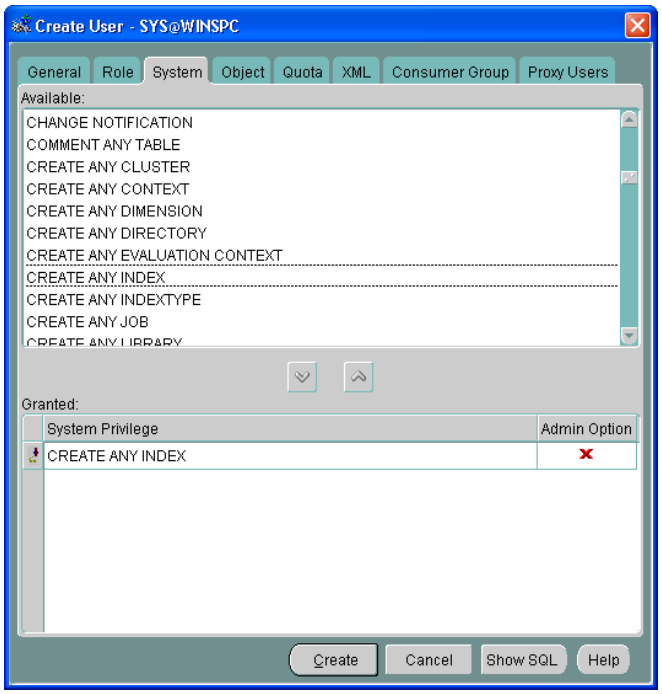
f. Leave **Status** as **Unlocked**.



3. Without clicking Create, click the **Role** tab and, in the **Available** list, double-click **RESOURCE**. This copies **RESOURCE** to the **Granted** list.



4. Click the **System** tab and, in the **Available** list, double-click **CREATE ANY INDEX**. This copies **CREATE ANY INDEX** to the **Granted** list.



5. Click **Create.**

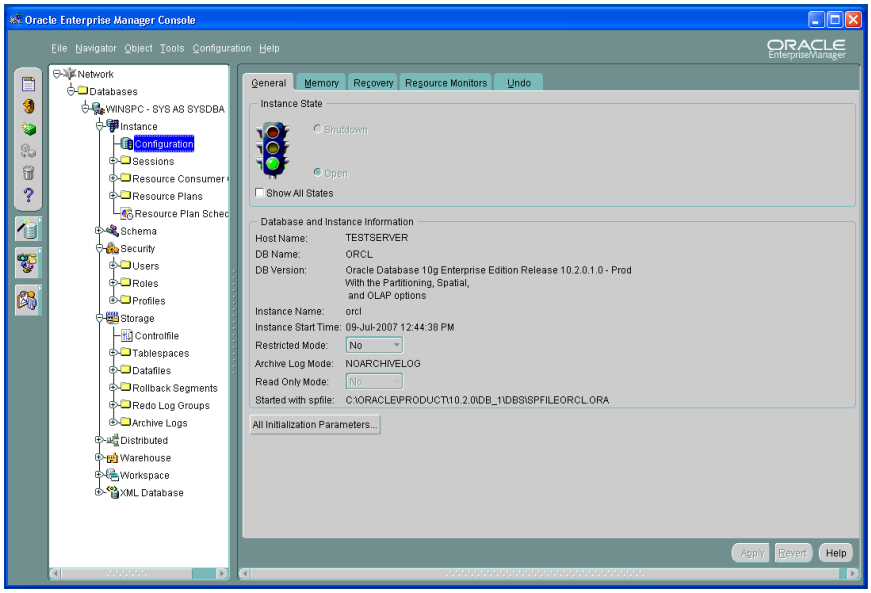
6. When the **User created successfully** message appears, click **OK**.

Set the Number of Open Cursors

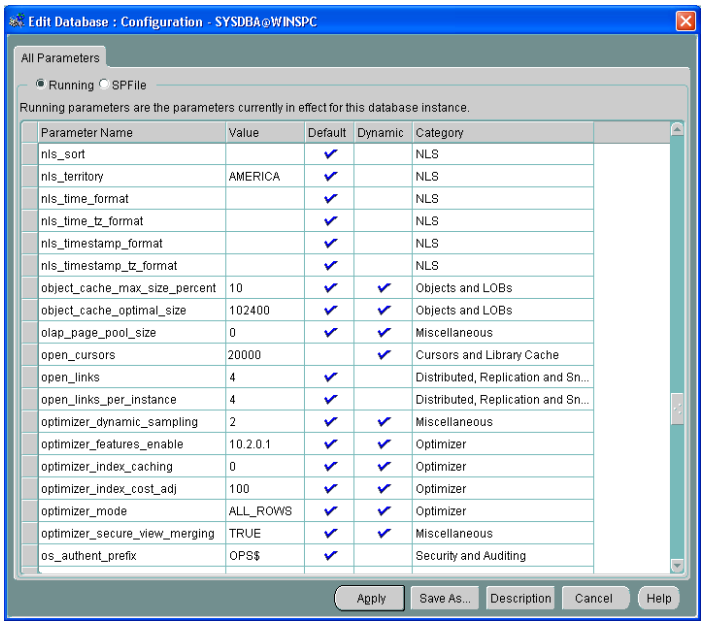
1. Calculate the required number of open cursors using this formula:

   *open_cursors = number of WinSPC licenses * 50*

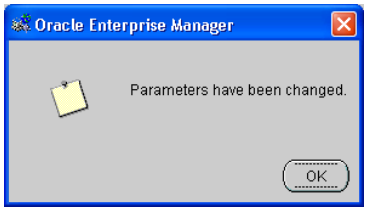
2. Still in the **Oracle Enterprise Manager Console**, in the left pane, expand **Instance**, click **Configuration** and then, in the right pane, click **All Initialization Parameters** toward the bottom of the **General** tab.



3. In the **Edit Database: Configuration** dialog box, scroll to **open_cursors,** replace the default number of open cursors in the **Value** column with the number you calculated in step 1 and click **Apply**.



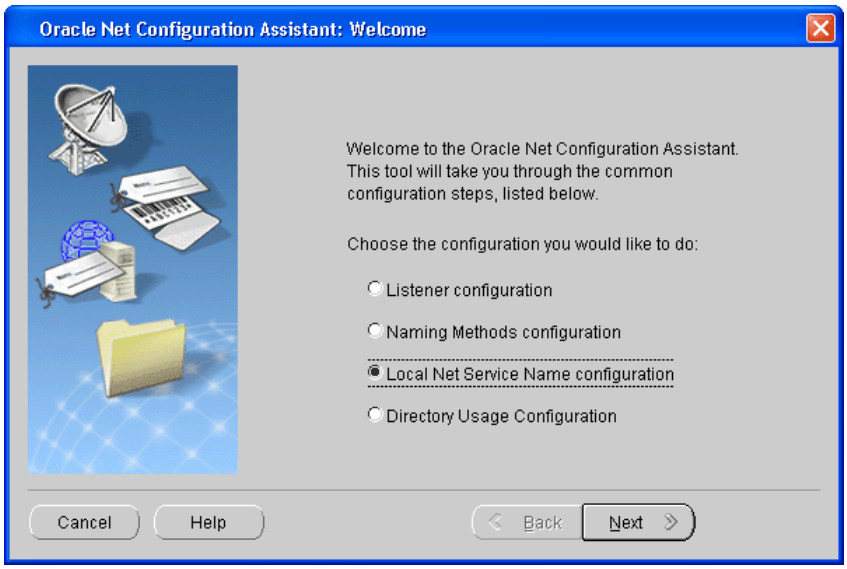
4. When the **Parameters have been changed** message appears, click **OK**.



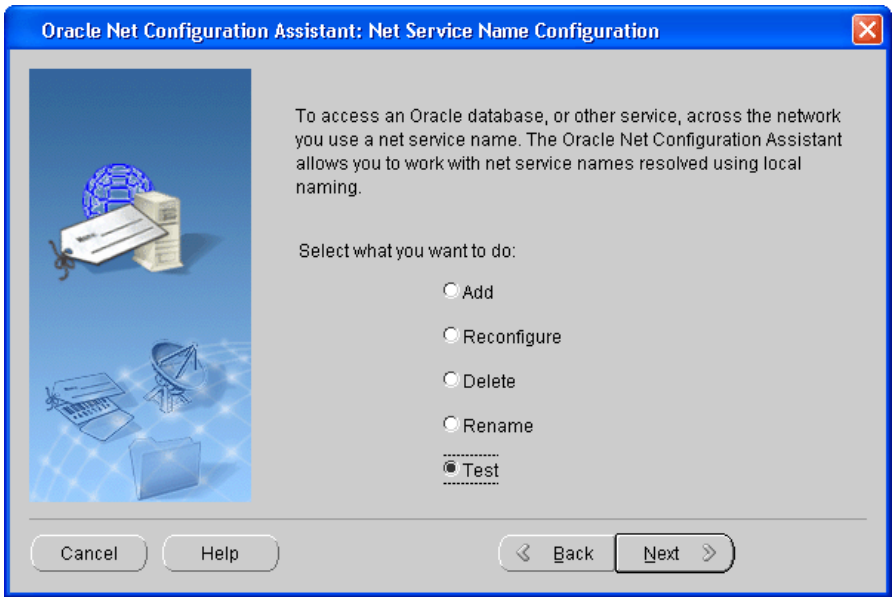
5. Close the **Oracle Enterprise Manager Console** by clicking **File > Exit**.

Test the Local Net Service Name

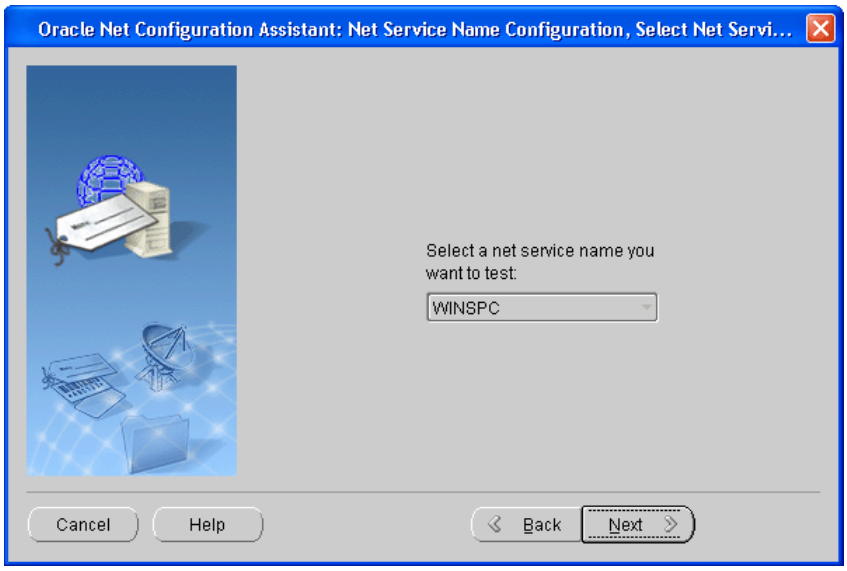
1. Still on the first client machine, click **Start > All Programs > Oracle – OraClient10g_home1 > Configuration and Migration Tools > Net Configuration Assistant**.
2. In the **Oracle Net Configuration Assistant:Welcome** dialog box, select **Local Net Service Name configuration** and click **Next**.



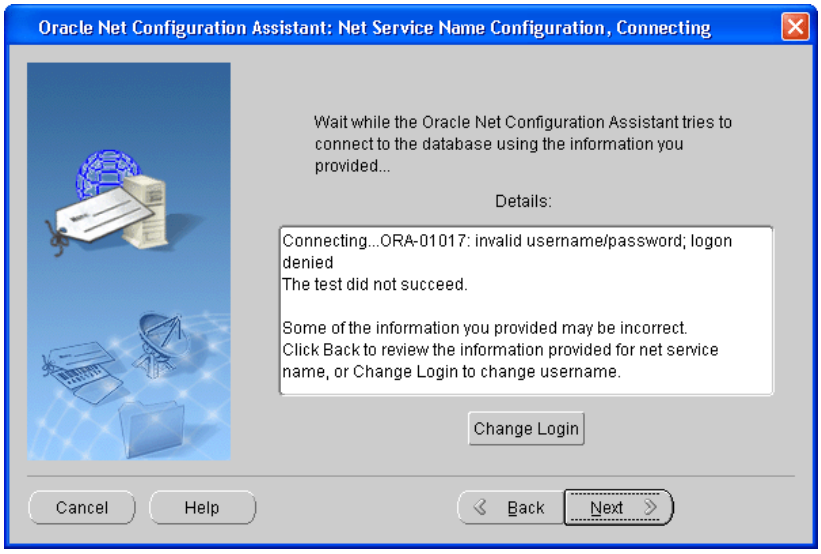
3. Select **Test** and click **Next**.



4. Select the net service name you specified in step 2d of this chapter's **Create a Tablespace** section, if it isn't already selected, and click **Next**.

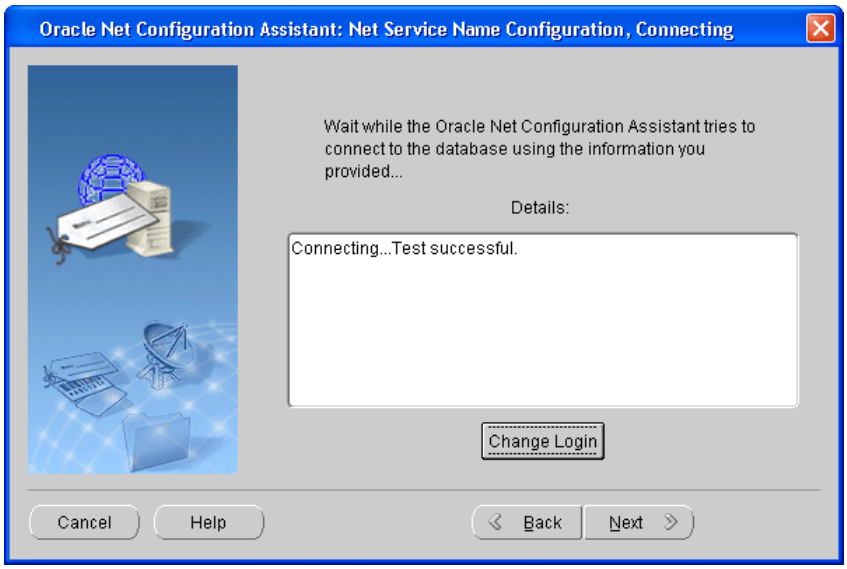


5. In the next dialog box, which indicates the test did not succeed, click the **Change Login** button.

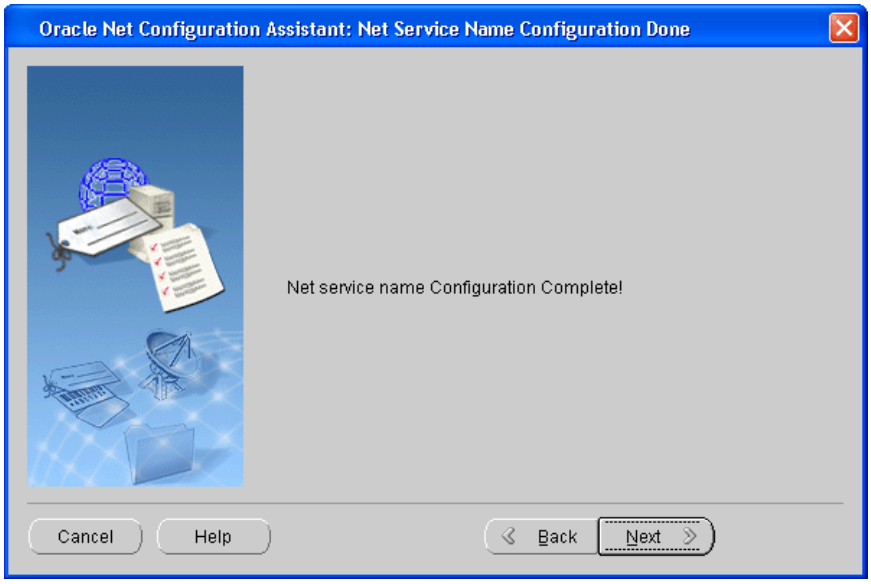


6. In the **Change Login** dialog box, replace the default username and password with the username and password you created in step 2 of this chapter's **Create a Server Login** section and click **OK**.

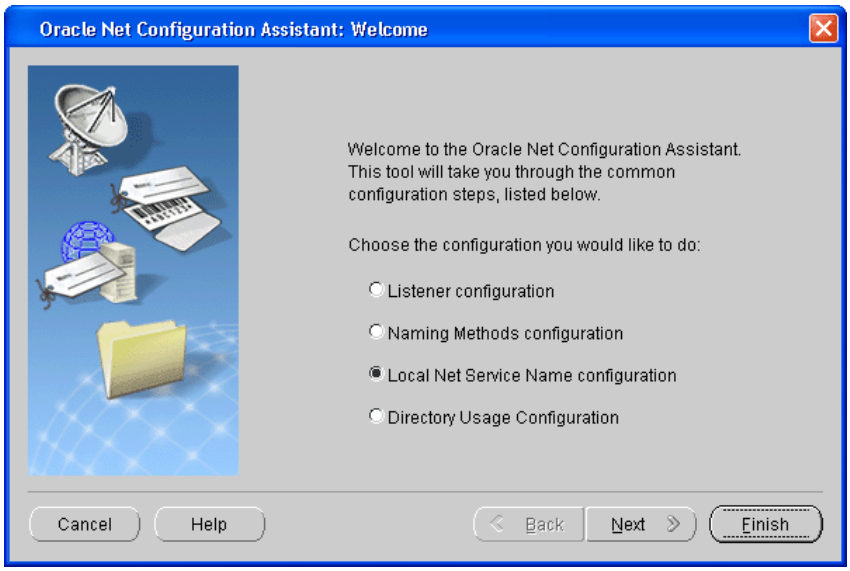
7. When the test is indicated as having succeeded, click **Next**.



8. Click **Next** when the net service name configuration is indicated as complete.



9. On the **Welcome** dialog box, click **Finish**.



THIS COMPLETES PHASE 1 OF 4.

GO TO THE NEXT PAGE AND COMPLETE PHASE 2.

FIRST CLIENT INSTALL AND CONFIGURATION (INITIAL STEPS)

This section concerns the installation and configuration of WinSPC on the first WinSPC client machine. (See the third assumption at the beginning of this chapter for a definition of the first WinSPC client machine.)

If your implementation employs Microsoft Terminal Services, see the discussion on page 1 of this guide for direction on whether to make your first client the Microsoft Terminal Services server or another computer.

1. Create a folder on a network file server accessible by all client machines that will run WinSPC. This folder's primary purpose is to facilitate the installation and configuration of WinSPC on all clients other than the first client. (The recommended name for this folder is **WinSPCRemote**.)
2. Share this folder and grant domain administrators a minimum of **Change** *share* permissions and **Modify** *security* permissions to it. (For a procedure on granting *share* or *security* permissions, see **Appendix D: Granting Share and Security Permissions.**)

   NOTE: If your WinSPC implementation is part of a workgroup rather than a domain, grant these **Change** and **Modify** permissions to the local administrator who will install and configure WinSPC on the first WinSPC client machine.
3. Log into Windows on the first WinSPC client machine as a domain administrator who also has local administrator privileges, if you are not already logged in as such an administrator.

   NOTE: If the first WinSPC client machine is part of a workgroup instead of a domain, log in as a local administrator.

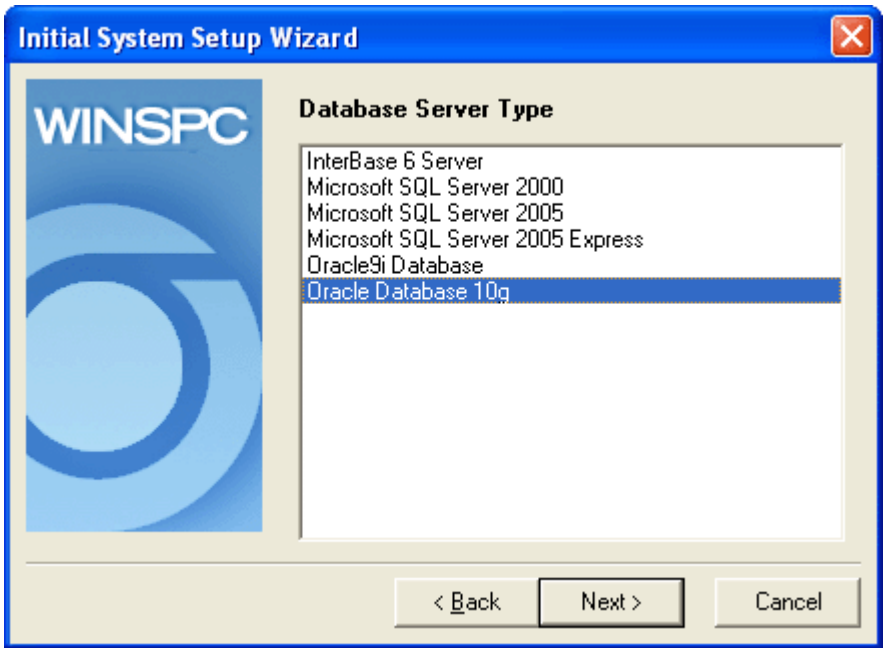
4. Insert the WinSPC CD into the first WinSPC client's CD-ROM drive. If autorun is enabled on the client, the CD will start automatically. If autorun is not enabled:
   a. Click **Start > My Computer**.
   b. In the **My Computer** dialog box, double-click your CD-ROM drive.
   c. When the list of files appears, double-click **Setup.exe**.
5. When the **WinSPC Setup** screen appears, click **Install WinSPC**.
6. Install WinSPC by following the setup prompts. During this installation, after the step when programs files are copied, close the folder that automatically opens. When the **Setup Complete** screen appears, click **Finish**.

   NOTE: The setup prompts are intended to be self-explanatory. Consequently, they are not detailed here. If you have a question about a prompt or want to be directed step-by-step through the setup wizard, see **Appendix A: WinSPC Setup Prompts** toward the end of this guide.
7. Complete **Appendix B: Installing NJWin for an Asian Language** if the first client machine will need to run WinSPC in an Asian language or you would like to run the Initial System Setup Wizard in an Asian language. (The Initial System Setup Wizard is the tool you will use next in this first client configuration process.)
8. Exit the **WinSPC Setup** screen by clicking the **X** in the upper right corner.
9. Remove the WinSPC CD from the CD-ROM drive.

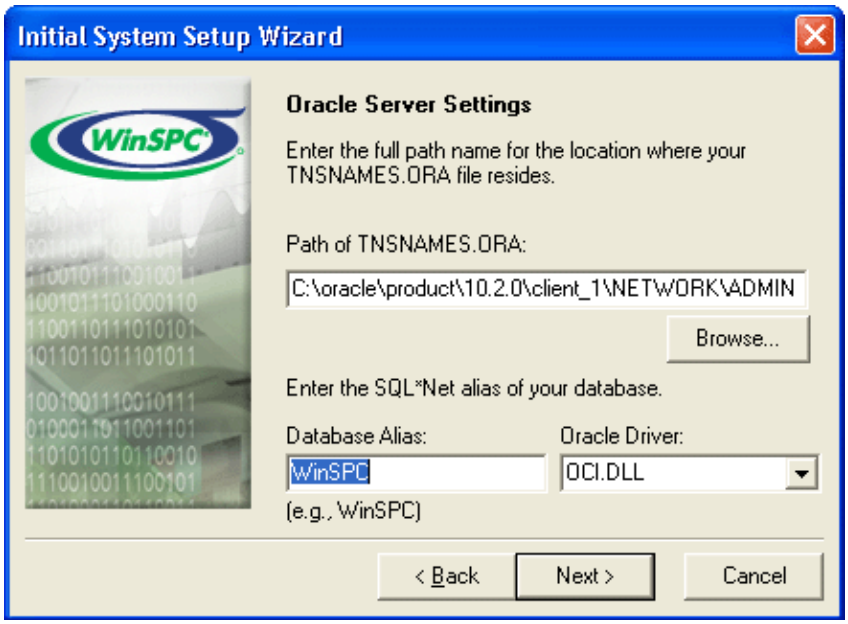
10. Run **WinSPC**. The default path for doing this is **Start > All Programs > WinSPC > WinSPC CS**. This launches the Initial System Setup Wizard.
11. On the **Language** screen, from the **Select language** list, choose a language and click **Next**.

NOTE: The language selected here becomes the language in which the remainder of the Initial System Setup Wizard will be run. It also becomes the system-wide default language for WinSPC. (This default language can be changed at any time following the completion of the Initial System Setup Wizard. See the Help in WinSPC for more information on default languages once the configuration of the first WinSPC client is complete.)

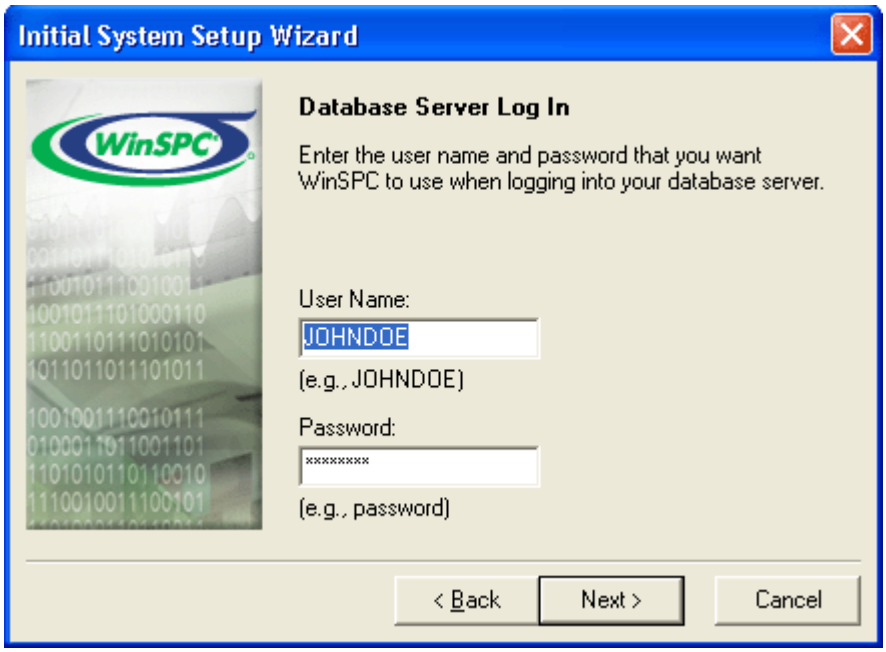
12. On the **Database Server Type** screen, select **Oracle Database 10*g*** and click **Next.** (Notice this screen is displayed in the language selected during the preceding step.)



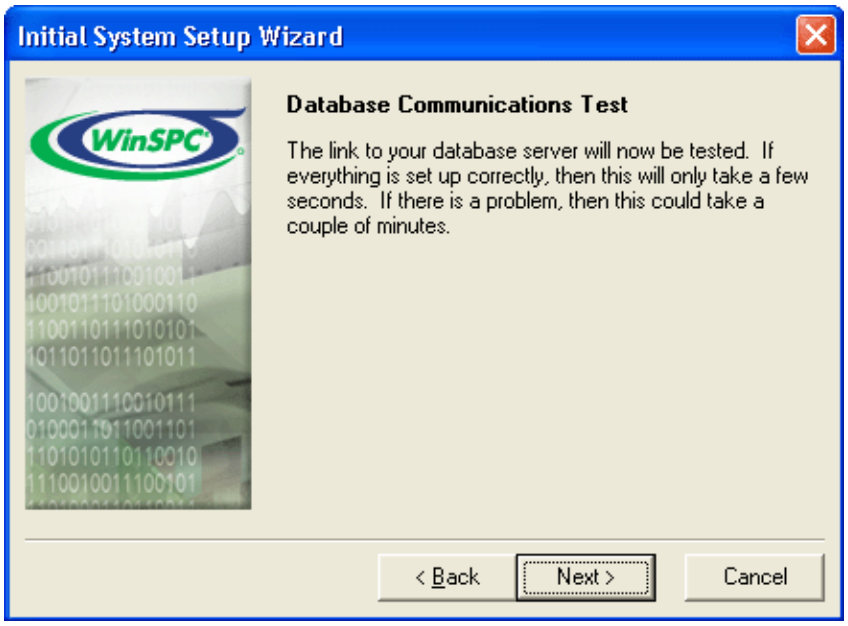
13. On the **Oracle Server Settings** screen:
    a. At **Path of TNSNAMES.ORA**, accept the default location.
    b. In the **Database Alias** text box, enter the **Net Service Name** you chose in step 2d of this chapter's **Create a Tablespace** section.
    c. At **Oracle Driver**, leave the default **OCI.DLL** selected.
    d. Click **Next.**



14. On the **Database Server Log In** screen, enter the tablespace login **User Name** and **Password** created in step 2 of this chapter's **Create a Server Login** section and click **Next**.



15. On the **Database Communications Test** screen, click **Next**.

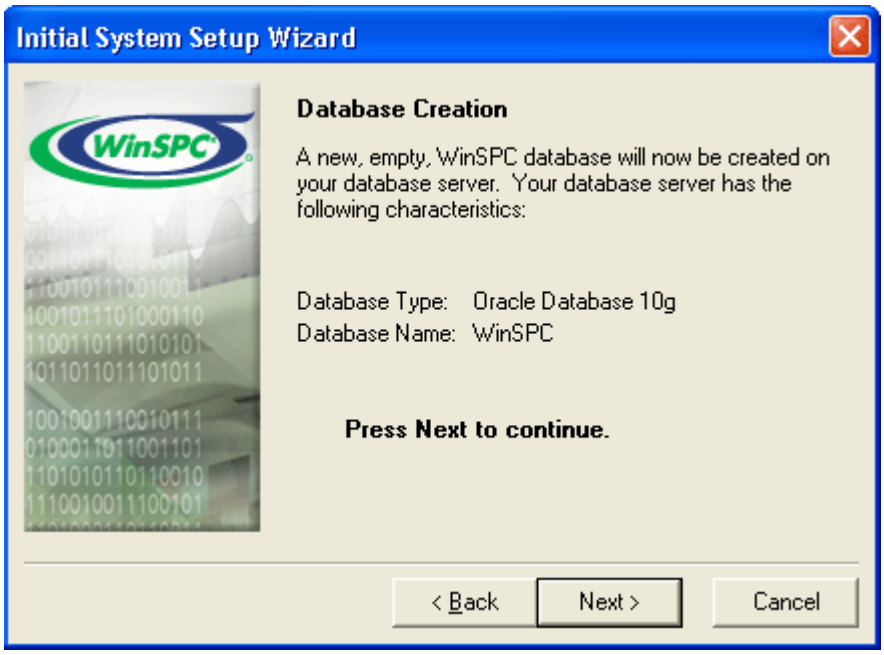


NOTE: In the event the test fails:

- If the error message displayed reads **Unknown network error. ORA-12154: TNS: could not resolve the connect identifier specified.**, click the **Back** button three times and reenter the database alias, ensuring you have the correct name and that it is spelled correctly. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.

- If the error message reads **Unknown user name or password.**, click the **Back** button twice and reenter the server user name and password, ensuring you have the correct user name and password and that these are spelled correctly. Also, since passwords are case sensitive, ensure the appropriate capitalization is used for the password. Once you've reentered this information, advance through the Initial System Setup Wizard again by clicking **Next**, verifying the information on each screen as you do.

16. On the **Database Creation** screen, click **Next**. This creates the WinSPC schema within the WinSPC database.



17. If you selected a language other than English in step 11 of this section, an **Add Language** screen appears once the WinSPC schema is created. In this case:

    a. Insert the language disk for the selected language into your floppy drive and click the **OK** button.

    b. In the message asking if you want to proceed with the addition of the detected language, click **OK**.

    c. If a message indicating the detected language has already been installed appears, click **OK**.

    d. Allow the **Adding New Language** progress bar to complete.

    e. When the **You may now select the desired language in the System Settings, Station Setup, or User Setup** message appears, click **OK**.

    f. If the **Add Language** screen reappears, click **Cancel**.

    g. Remove the language disk from the floppy drive.

    NOTE: Language disks are included in your WinSPC materials. If you didn't order a language disk and, consequently, did not receive one, click the **Cancel** button and complete the Initial System Setup Wizard without adding the language. Later, you can order the language disk and, once it arrives, add the language using the **Add Language** option on the **Administrator** window's **Tools** menu in WinSPC. Until the language is added, you'll be restricted to running WinSPC in English. (The remainder of the Initial System Setup Wizard continues to run in the selected language whether or not a language is added from a language disk.)

THIS COMPLETES PHASE 2 OF 4.

GO TO **CHAPTER 6: FIRST CLIENT CONFIGURATION (FINAL STEPS)** AND COMPLETE PHASE 3.

CHAPTER 6: FIRST CLIENT CONFIGURATION (FINAL STEPS)

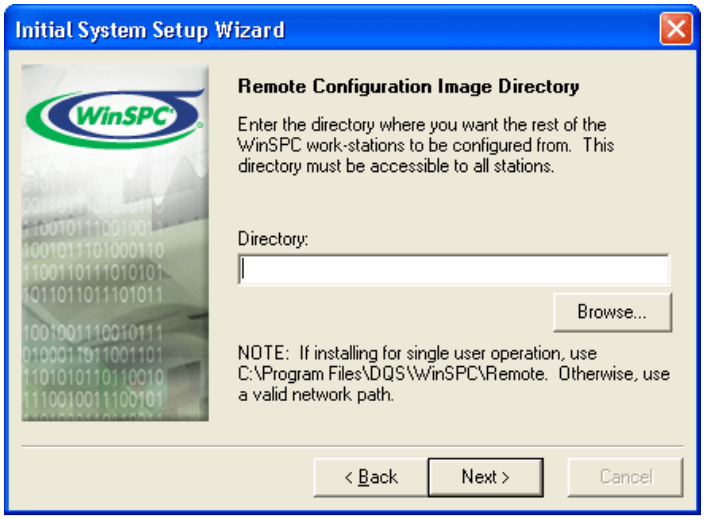
Phase 3 of 4

This chapter consists of the final steps to configure the first WinSPC client. With a few exceptions, these steps are common to all database servers. They begin midway through the Initial System Setup Wizard, just after the creation of the WinSPC schema.

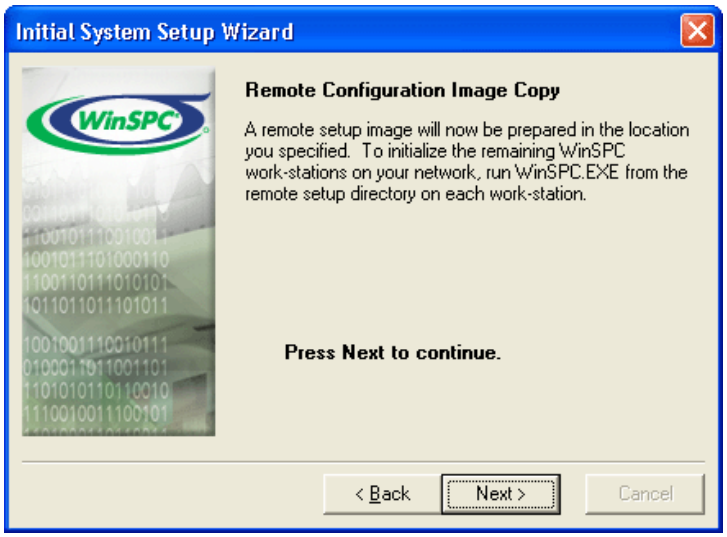
1. On the **Remote Configuration Image Directory** screen:
   a. Click the **Browse** button.
   b. In the **Directory Selection** dialog box that opens, navigate to and select the shared folder created for WinSPC, then click **OK**. This closes the **Directory Selection** dialog box and populates the shared folder path in the **Directory** text box of the **Remote Configuration Image Directory** screen.

      NOTE: The shared folder referred to here is the one created in step 1 of the **First Client Install and Configuration (Initial Steps)** section that you completed prior to coming the this chapter.

   c. Click **Next**.

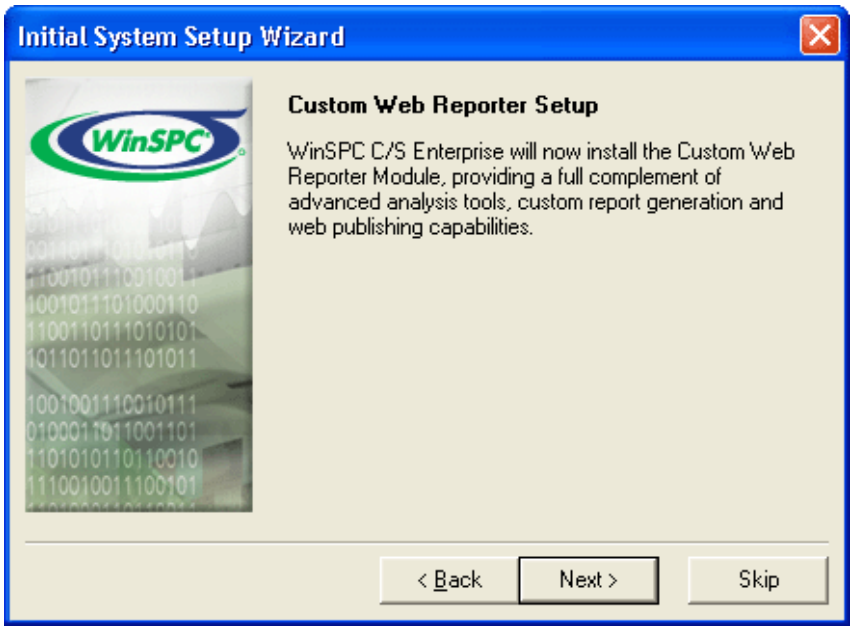


2. On the **Remote Configuration Image Copy** screen, click **Next.** This copies the files needed for the installation and configuration of additional WinSPC clients to the shared folder.

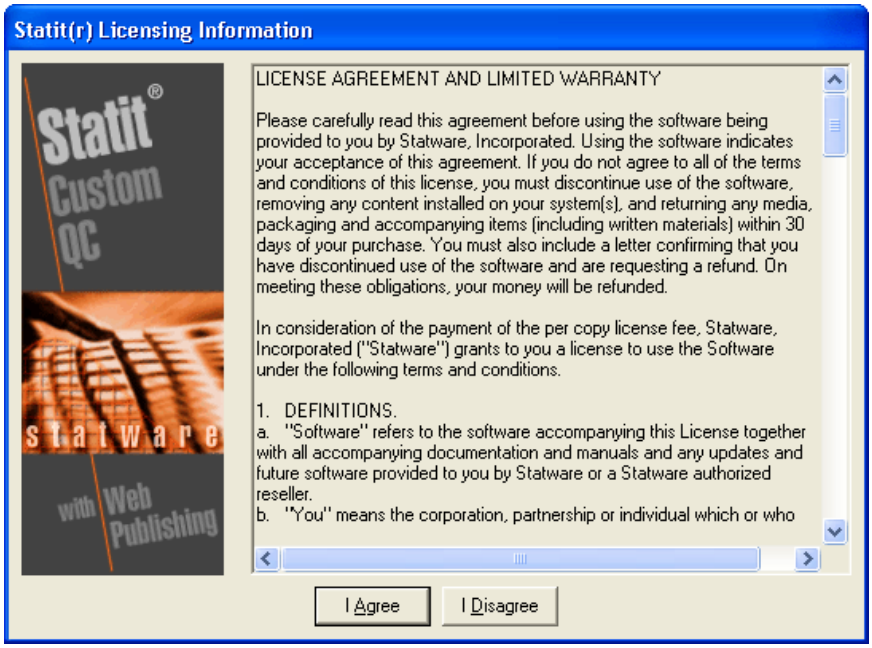


3. On the **Custom Web Reporter Setup** screen, if you want to install Custom Web Reporter on the first client or you think you may, at some point, want to install it on an additional client, click **Next.** Otherwise, click **Skip** and advance to step 6 of this procedure.

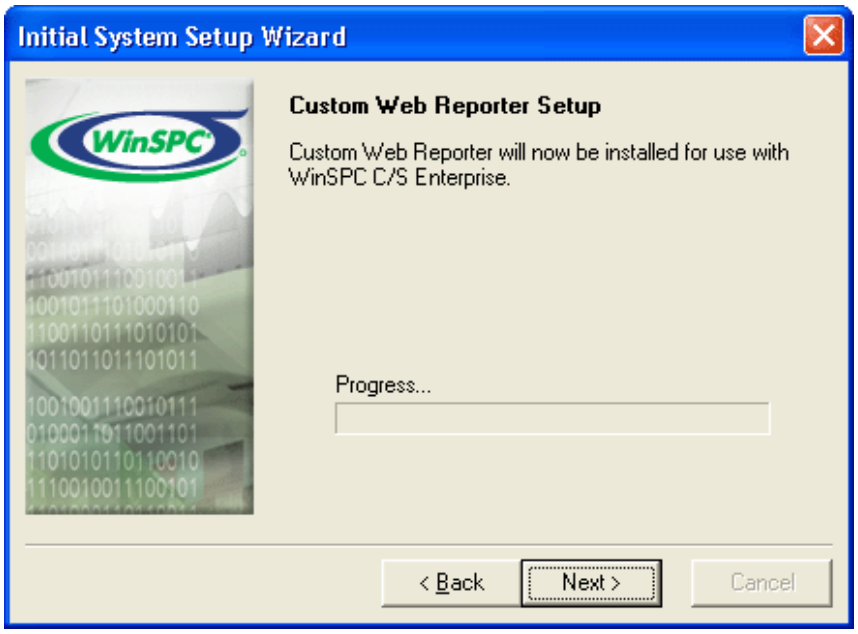
   NOTE: An installation of Custom Web Reporter comes with a free 60-day license. For information on purchasing permanent licenses, contact DataNet Quality Systems.



4. On the **Statit(r) Licensing Information** screen, read the license agreement and, if you agree, click **I Agree**.



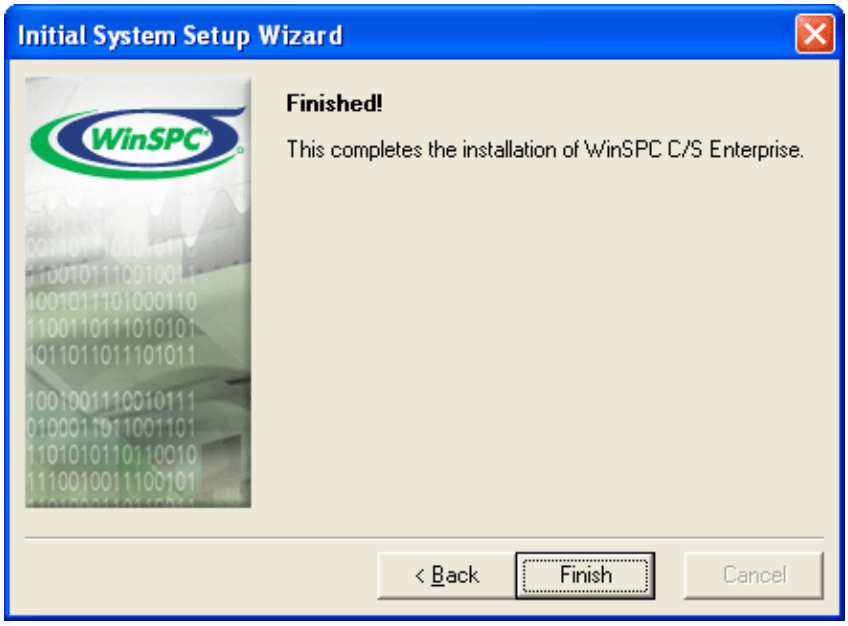
5. On this **Custom Web Reporter Setup** screen, click **Next**. This installs **Custom Web Reporter** on the first client and copies the installation files for Custom Web Reporter to the shared folder.



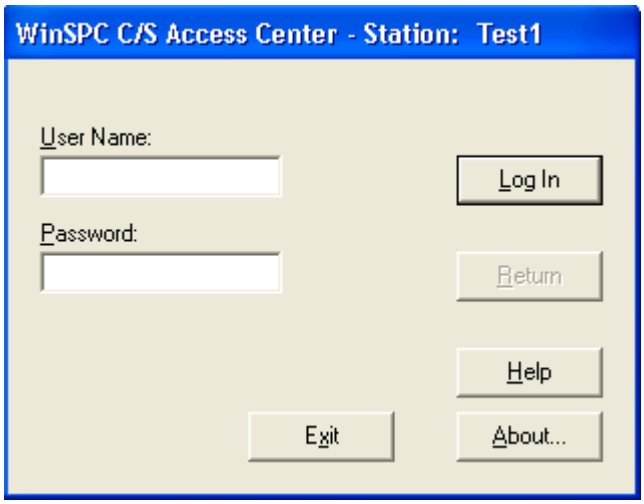
6. On the **System Administrator Password** screen, create and enter a sufficiently strong, case-sensitive password for the Admin user in both the **Password** and **Confirm Password** text boxes and click **Next**.

NOTE: This **Admin** user is the only user with complete WinSPC permissions.

7. On the **Finished** screen that appears, click **Finish**. This causes the Initial System Setup Wizard to close…

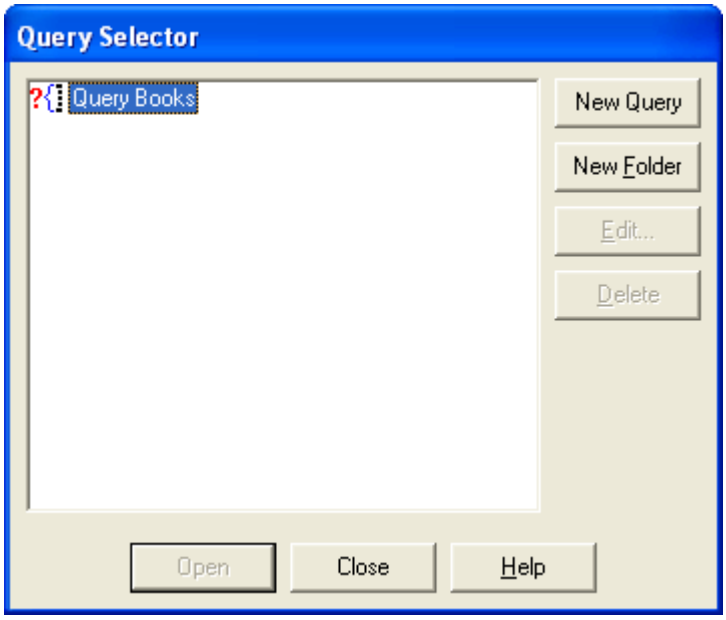


…and the **WinSPC C/S Access Center** to open.



8. If, earlier in this chapter, you skipped the installation of Custom Web Reporter, click the **Exit** button and go to step 9. If you installed Custom Web Reporter, run it once while logged into Windows as an administrator. To do this:
   a. At **User Name**, enter **Admin.**
   b. At **Password**, enter the password for the **Admin** user created is step 6 above.
   c. Click the **Log In** button.
   d. In the **Administrator** window that appears, click the **Query Tool** tool bar button.

e. In the **Query Selector** dialog box that is displayed, click the **New Query** button.



This creates a new query icon and a text box for the name of the new query.

f. Click the **Edit** button.

g. In the **Query Builder** dialog box:

   i. At **Source Database**, leave the **Main** option selected.

   ii. Under **WinSPC C/S** in the middle left pane of the dialog box, single-click **Parts/Processes**.

   iii. In the middle right pane, double-click **Penny**.

iv. Still in the middle right pane, double-click **Diameter**. This copies **Diameter** to the bottom pane.

v. Click **OK**.

h. Back in the **Query Selector**, click the **Open** button. This causes a chart to be displayed in the **Query Tool**.

i. In the **Query Tool**, click the **Custom Web Reporter** tool bar button.

j. In the **Custom Web Reporter Options** dialog box that appears, check the **Run Report on Each Characteristic** check box and click **OK.**

k. If a message that reads *The Custom Web Reporter was not found, so it will be installed now* is displayed, click **OK**. This causes an **Installing** progress bar to briefly appear and then Custom Web Reporter to open. (Note: This message is only displayed when this procedure is completed from an additional client as directed by step 5 of **Chapter 7: Additional Client Installs and Configuration**.)

l. From the Custom Web Reporter's menu bar, click **File > Exit**.

m. In the **Save Workspace** dialog box that is displayed, click **No**.

n. In the **Save Procedure Log** dialog box, click **No**. This causes Custom Web Reporter to close.

o. In the **Query Tool**, click the **Select query** tool bar button.

p. In the **Query Selector**, single-click **New Query** under **Query Books** and click the **Delete** button.

q. Click the **Confirm** message's **Yes** button.

r. Click the **Close** button in the **Query Selector**.

s. Close the **Query Tool** by clicking **Exit** from the **Query** menu.

t. Close the **Administrator** window by clicking **Exit** from the **File** menu.

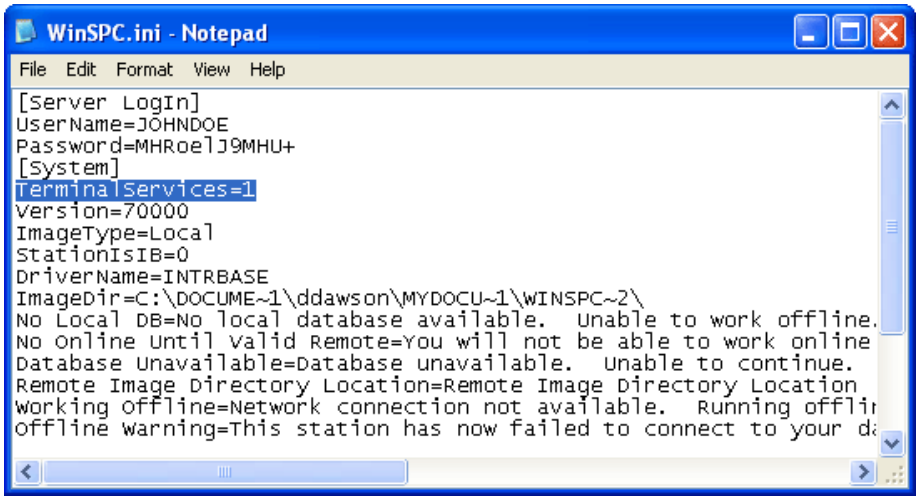
u. In the **Access Center**, click the **Exit** button.

9. If your first client is your Microsoft Terminal Services server:

a. Navigate to and double-click **winspc.ini**. The default installation location for this file is **C:\Program Files > DQS > WinSPC > winspc.ini**.

b. Insert a blank line directly below this file's **[System]** heading.

c. On that line, enter **TerminalServices=1**. This informs WinSPC at startup that the environment is a Terminal Services environment.



d. Indicate whether WinSPC is to name stations based on the connecting *station* or the connecting *user*. This is done by specifying either *station* mode or *user* mode as the mode in which WinSPC is to run. In station mode, WinSPC uses the ID of the station RDPing into the Microsoft Terminal Services server as the station name. In user mode, WinSPC uses the ID of the user (i.e. the login ID with which a user logs into Windows on the Microsoft Terminal Services server via a RDP session) as the station name. For example, say *Bob* logs into a station named *Finishing* and then, via RDP, logs into the Microsoft Terminal Services server as *Sally*. With station mode enabled, WinSPC will use *Finishing* as the station name. With user mode enabled, WinSPC will use *Sally* as the station name. Station mode is the default mode in which WinSPC runs and, consequently, nothing needs to be done to enable it. To enable user mode, directly beneath the **TerminalServices=1** line entered in the preceding step, enter a **UserMode=1** line.

   NOTE: To disable user mode in the future and have WinSPC run in station mode, delete the **UserMode=1** line or change this line to **UserMode=0**.

e. If you enabled user mode in the preceding step, configure Microsoft Terminal Services to disallow simultaneous sessions from a user. To do this:

   i. On the Microsoft Terminal Services server, launch **Terminal Services Configuration**, the default path for which in Windows 2003 Server is **Start > All Programs > Administrative Tools > Terminal Services Configuration**.

   ii. In the left pane of the **Terminal Services Configuration** window, single-click the **Server Settings** folder.

iii. In the right pane, right-click **Restrict each user to one session** and, from the shortcut menu that appears, click **Yes**.

iv. Close **Terminal Services Configuration**.

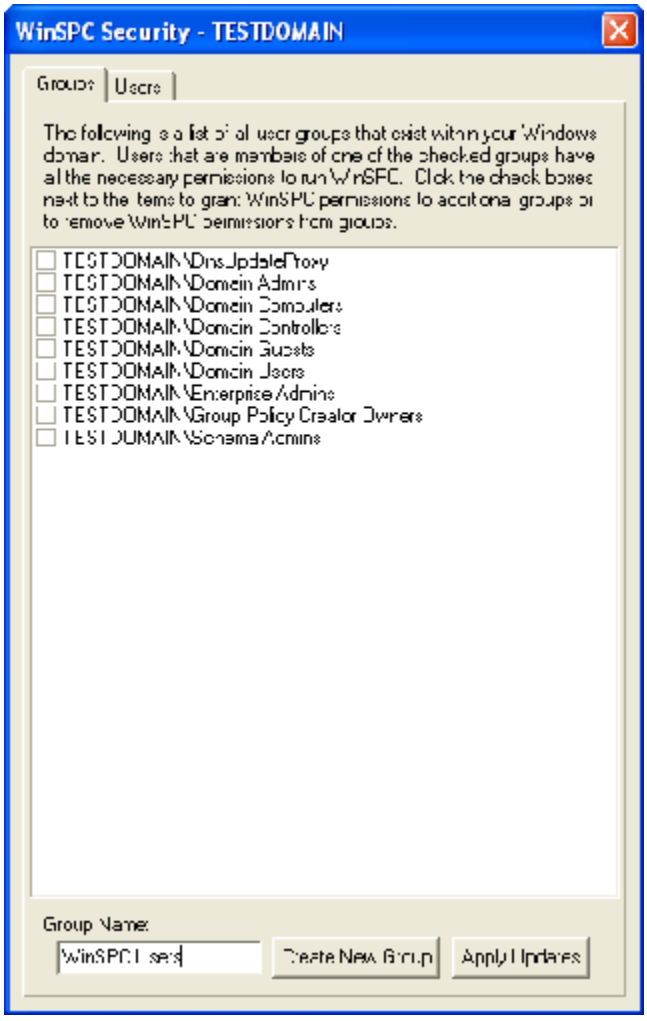
f. Save and close **winspc.ini**.

NOTE: The remaining steps of this procedure concern granting permissions for users of WinSPC on the first client. The permissions granted by these steps are the minimum permissions required to run WinSPC. These steps assume your WinSPC implementation employs network domains. If your implementation employs workgroups, instead of completing these steps, complete **Appendix C: WinSPC Security for Workgroups**.

10. If you are logged into Windows on the first WinSPC client machine as anything other than a domain administrator, log out and log back in as a domain administrator. (This is necessary because you will be creating a user group for WinSPC users on the domain controller.)

11. Navigate to the shared folder created for WinSPC and, within this folder's **Utility** folder, double-click **WinSPCSecurity**.

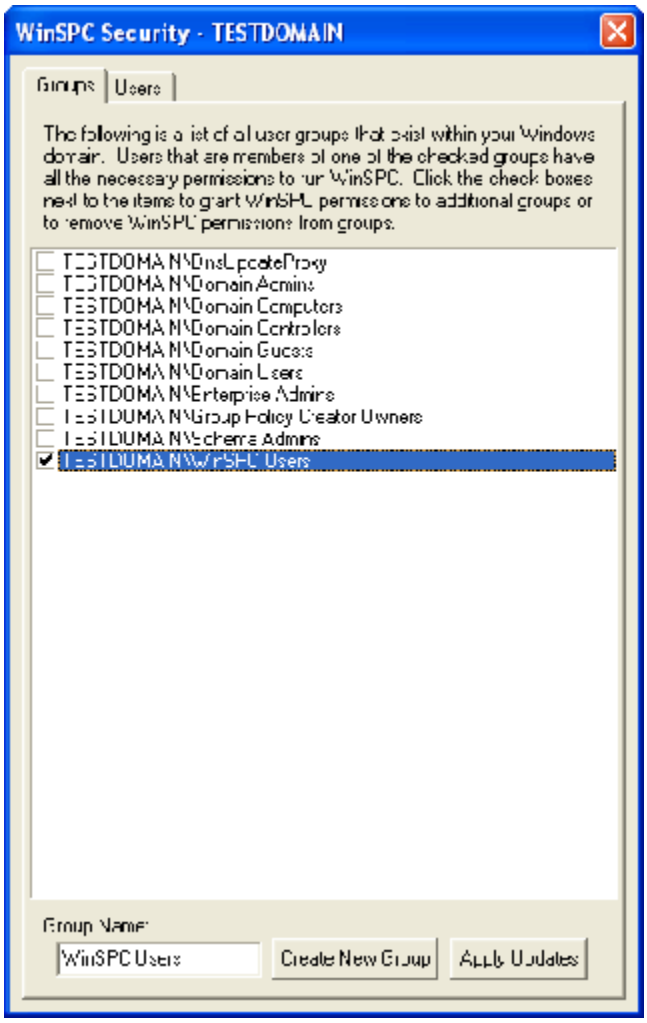
12. In the **WinSPC Security** utility that launches, toward the bottom of the **Groups** tab, at **Group Name**, create and enter a name for a user group that will consist of WinSPC users. (The recommended name for this user group is **WinSPC Users**.)



13. Click the **Create New Group** button.

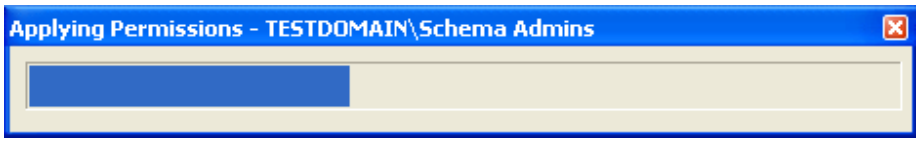
This causes the user group to be added to the list of groups above and creates the user group on the domain controller.

14. Check the check box for the new user group.



15. Click the **Apply Updates** button.

    This causes an **Applying Permissions** progress bar to appear.

16. When the **Permissions Applied** message appears, click its **OK** button and close the **Security Utility** by clicking the X in the upper right corner.

NOTE: The next three steps concern granting *share* and *security* permissions. For a procedure on granting permissions, see **Appendix D: Granting Share and Security Permissions.**

17. If your database server is Oracle9*i*, grant the newly created user group for WinSPC users **Modify** *security* permissions to the required Oracle9*i* Client folders and files on the first client machine. The required folders and files include—assuming default names and locations were accepted during the installation of Oracle9*i* Client—the **C:\Oracle** folder and all of this folder's child folders and files.

    NOTE: If default names and locations were modified during the installation of Oracle9*i* Client, you can determine which are the required folders and files by searching the client machine for the **oci.dll** file. This file's most senior Oracle-specific parent folder is the equivalent of the default **C:\Oracle** folder.

18. Grant the user group for WinSPC users **Change** *share* permissions and **Modify** *security* permissions to the shared folder and the **Utility** folder within this shared folder.
19. If your database server is InterBase 6 Server, grant the user group for WinSPC users **Modify** *security* permissions to the WinSPC database file created in step 2 of the **Create a Database** section of **Chapter 1: InterBase 6**. Additionally for InterBase 6 Server implementations, if during the completion of the Initial System Setup Wizard, the NetBEUI protocol was selected rather than the TCP/IP protocol, grant the user group for WinSPC users **Modify** *security* permissions to the **isc4.gdb** file on your InterBase 6 Server machine. The default location for this file is **C:\Program Files\Borland\InterBase**.
20. On your domain controller, add all users who will be running WinSPC and all local administrators who will install and configure WinSPC to the newly created user group. (For a procedure on adding users to a user group, see **Appendix E: Adding Users to a User Group.)**

THIS COMPLETES PHASE 3 OF 4.

GO TO **CHAPTER 7: ADDITIONAL CLIENT INSTALLS AND CONFIGURATIONS** AND COMPLETE PHASE 4.

IF YOU DON'T NEED TO INSTALL AND CONFIGURE ADDITIONAL CLIENTS, THIS CONCLUDES THE ENTIRETY OF THE SETUP REQUIRED TO BEGIN USING WINSPC. FOR INSTRUCTIONS ON LAUNCHING AND LOGGING INTO WINSPC, SEE **APPENDIX F: LAUNCHING AND LOGGING INTO WINSPC**.

CHAPTER 7: ADDITIONAL CLIENT INSTALLS AND CONFIGURATIONS

Phase 4 of 4

If your WinSPC implementation utilizes the conventional client/server architecture exclusively, meaning it does not employ Microsoft Terminal Services at all, complete the procedure in this chapter on each additional client station.

If your implementation utilizes Microsoft Terminal Services exclusively, meaning all client stations other than the Microsoft Terminal Services server connect to the WinSPC database through the Microsoft Terminal Services server, it is not necessary to complete the procedure in this chapter.

Terminal Services

If your implementation employs a mix of the conventional client/server architecture and a Microsoft Terminal Services architecture, complete this chapter for any client station that will be connecting to the WinSPC database directly rather than through the Microsoft Terminal Services server. This includes completing the procedure on the Microsoft Terminal Services server itself if WinSPC was not installed on this server as part of the first client configuration.

1. Log into Windows on the additional client machine as a local administrator.
2. Using Windows Explorer, navigate to the shared folder created for WinSPC and double-click **WinSPC.exe**.

WinSPC.EXE

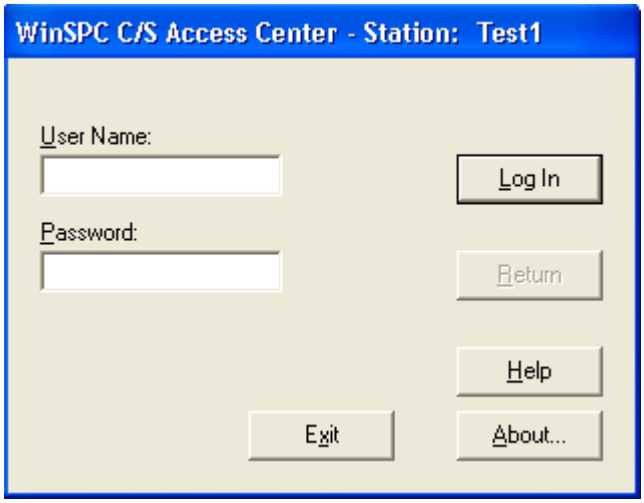
3. Install WinSPC by following the setup prompts. During this installation, after the step when programs files are copied, close the

folder that automatically opens. When the **Setup Complete** screen appears, click **Finish**.

4. Launch and exit WinSPC once while logged into Windows as a local administrator. To do this:

   a. Click **WinSPC C/S**. The default path for this is **Start > All Programs > WinSPC**.

   b. In the WinSPC C/S Access Center that appears, click the Exit button.



5. If you don't want to install Custom Web Reporter on the additional client, go to step 6. If you want to install Custom Web Reporter and you know it has been run on the first client at least once:

   a. Navigate to the shared folder for WinSPC.

   b. In the shared folder's **STATIT** subfolder, double-click **CustomQC541OEM.exe**. This causes an **Installing** progress bar to briefly appear and then disappear, indicating the Custom Web Reporter installation is complete.

   NOTE: If you know or suspect Custom Web Reporter was not run at least once on the first client, complete step 8 of **Chapter 6: First Client Configuration (Final Steps)** on this additional client.

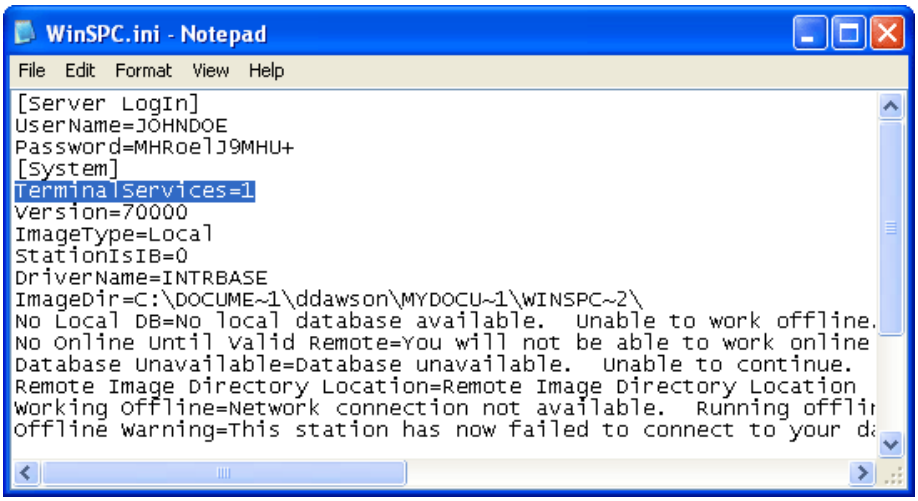
6. If the additional client is your Microsoft Terminal Services server:

   Terminal Services

   a. Navigate to and double-click **winspc.ini**. The default installation location for this file is **C:\Program Files > DQS > WinSPC > winspc.ini**.

   b. Insert a blank line directly below this file's **[System]** heading.

c. On that line, enter **TerminalServices=1**. This informs WinSPC at startup that the environment is a Terminal Services environment.



d. Indicate whether WinSPC is to name stations based on the connecting *station* or the connecting *user*. This is done by specifying either *station* mode or *user* mode as the mode in which WinSPC is to run. In station mode, WinSPC uses the ID of the station RDPing into the Microsoft Terminal Services server as the station name. In user mode, WinSPC uses the ID of the user (i.e. the login ID with which a user logs into Windows on the Microsoft Terminal Services server via a RDP session) as the station name. For example, say *Bob* logs into a station named *Finishing* and then, via RDP, logs into the Microsoft Terminal Services server as *Sally*. With station mode enabled, WinSPC will use *Finishing* as the station name. With user mode enabled, WinSPC will use *Sally* as the station name. Station mode is the default mode in which WinSPC runs and,

consequently, nothing needs to be done to enable it. To enable user mode, directly beneath the **TerminalServices=1** line entered in the preceding step, enter a **UserMode=1** line.

NOTE: To disable user mode in the future and have WinSPC run in station mode, delete the **UserMode=1** line or change this line to **UserMode=0**.

e. If you enabled user mode in the preceding step, configure Microsoft Terminal Services to disallow simultaneous sessions from a user. To do this:

   i. On the Microsoft Terminal Services server, launch **Terminal Services Configuration**, the default path for which in Windows 2003 Server is **Start > All Programs > Administrative Tools > Terminal Services Configuration**.

   ii. In the left pane of the **Terminal Services Configuration** window, single-click the Server Settings folder.

   iii. In the right pane, right-click **Restrict each user to one session** and, from the shortcut menu that appears, click **Yes**.

   iv. Close **Terminal Services Configuration**.

f. Save and close **winspc.ini**.

7. Complete **Appendix B: Installing NJWin for an Asian Language** if the additional client machine will need to run WinSPC in an Asian language.

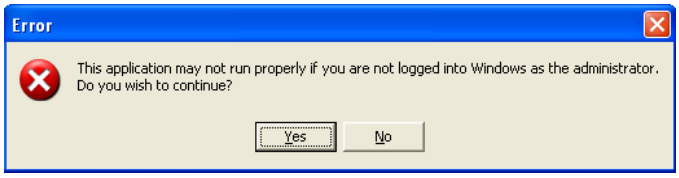
NOTE: The remaining steps of this procedure concern granting permissions for WinSPC users on the additional client machine. The permissions granted are the minimum permissions required to run WinSPC. These steps assume

your WinSPC implementation employs network domains. If your implementation employs workgroups, instead of completing these steps, complete **Appendix C: WinSPC Security for Workgroups**.

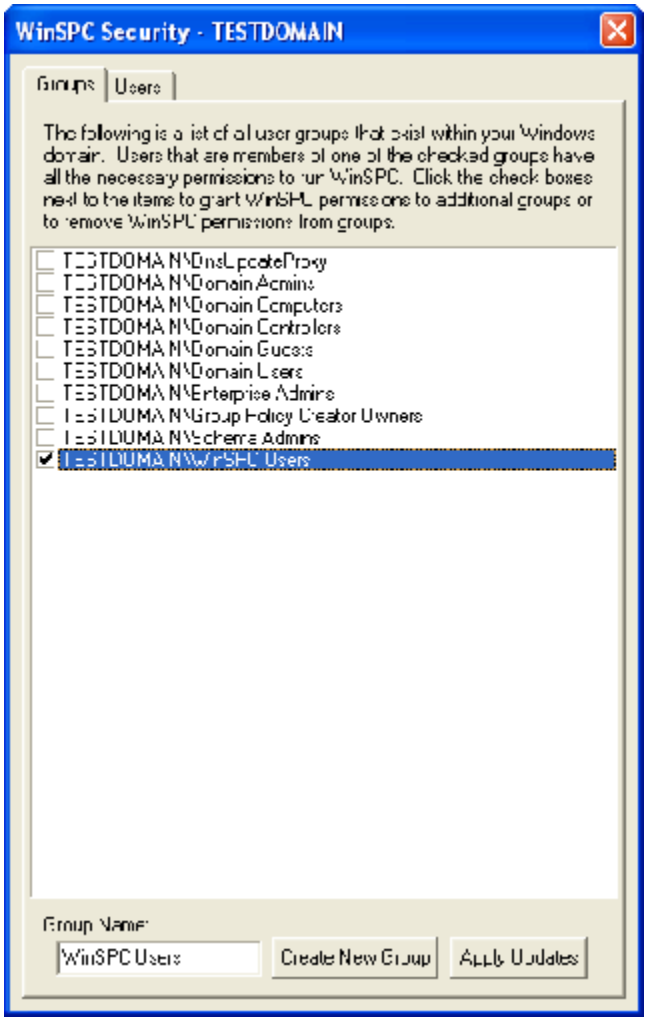
(These steps and Appendix C can be disregarded if every user of the WinSPC client has local administrator privileges on the client machine. In such a case, close the WinSPC shared folder and see **Appendix F: Launching and Logging Into WinSPC** to begin using WinSPC.)

8. Within the WinSPC shared folder, double-click **Utility > WinSPCSecurity**.

9. In the message indicating the application (i.e. security utility) may not run properly if you are not logged into Windows as an administrator, click **Yes**. (The administrator referred to in this message is a domain administrator. Being logged in as a local administrator, however, is sufficient for the remainder of this procedure.)

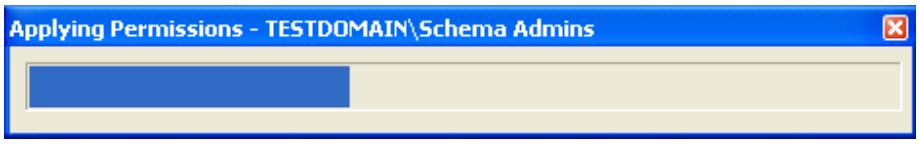


10. In the **WinSPC Security** utility, on the **Groups** tab, check the check box that corresponds to the name of the user group created for WinSPC users. This name was created in step 12 of **Chapter 6: First Client Configuration (Final Steps)**.



11. Click the **Apply Updates** button.

This causes an **Applying Permissions** progress bar to appear.



12. When the **Permissions Applied** message is displayed, click its **OK** button.
13. Close the Security Utility by clicking the X in its upper right corner.
14. Close the **Utility** folder.
15. If the additional client station will be used by any users who were not added to the user group for WinSPC users created during the first client configuration process, go to the domain controller and add them. (For a procedure on adding users to a user group, see **Appendix E: Adding Users to a User Group**.)
16. If your database server is Oracle9*i*, grant the newly created user group for WinSPC users **Modify** *security* permissions to the required Oracle9*i* Client folders and files on the first client machine. The required folders and files include—assuming default names and locations were accepted during the installation of Oracle9*i* Client—the **C:\Oracle** folder and all of this folder's child folders and files. (For a procedure on granting *security* permissions, see **Appendix D: Granting Share and Security Permissions.)**

    NOTE: If default names and locations were modified during the installation of Oracle9*i* Client, you can determine which are the required folders and files by searching the client machine for the **oci.dll** file. This file's most senior

Oracle-specific parent folder is the equivalent of the default **C:\Oracle** folder.

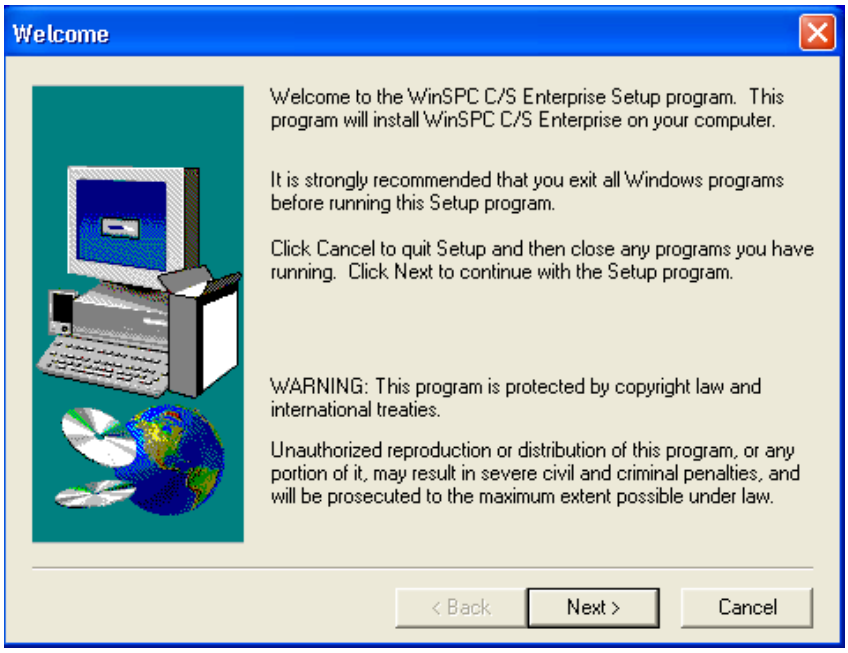
THIS COMPLETES PHASE 4 OF 4.

NO FURTHER SETUP IS REQUIRED TO BEGIN USING WINSPC. FOR INSTRUCTIONS ON LAUNCHING AND LOGGING INTO WINSPC, SEE **APPENDIX F: LAUNCHING AND LOGGING INTO WINSPC**.

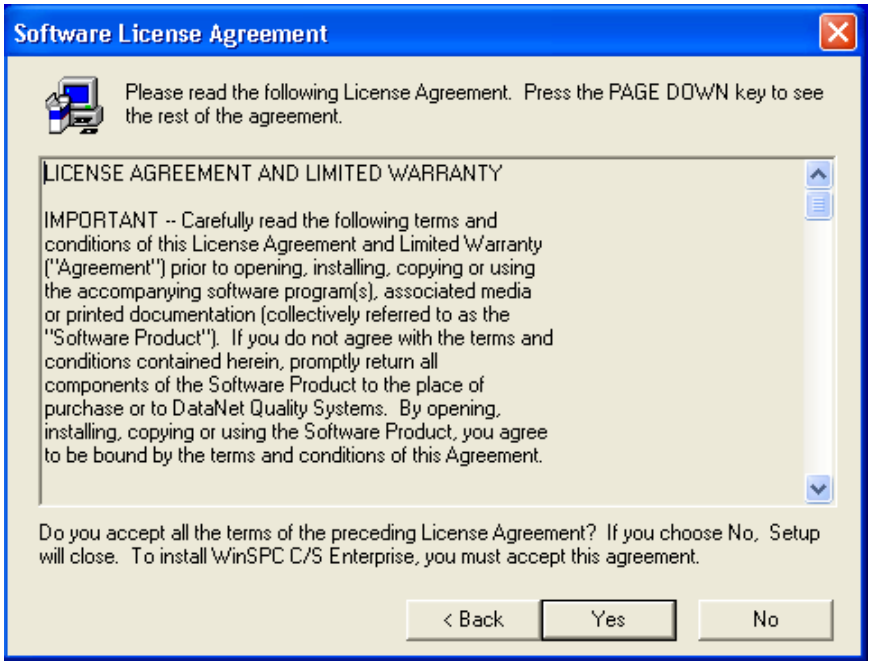
APPENDIX A: WINSPC SETUP PROMPTS

This appendix details the prompts presented during the installation of WinSPC on the first client. It begins with the first screen displayed after **Install WinSPC** on the WinSPC CD's **WinSPC Setup** screen is clicked.

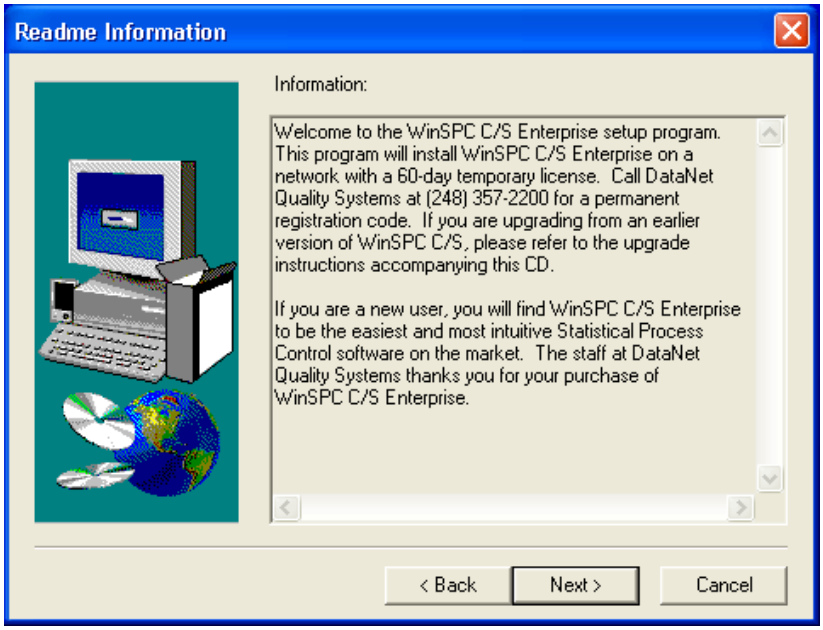
1. On the **Welcome** screen, click **Next.**



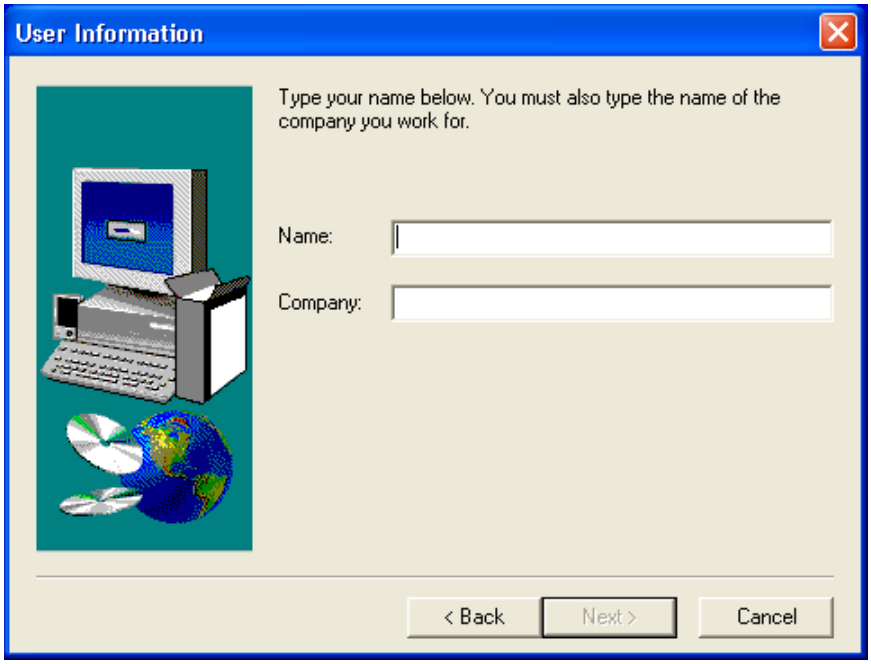
2. Read the software license agreement and, if you accept its terms, click **Yes** to continue.



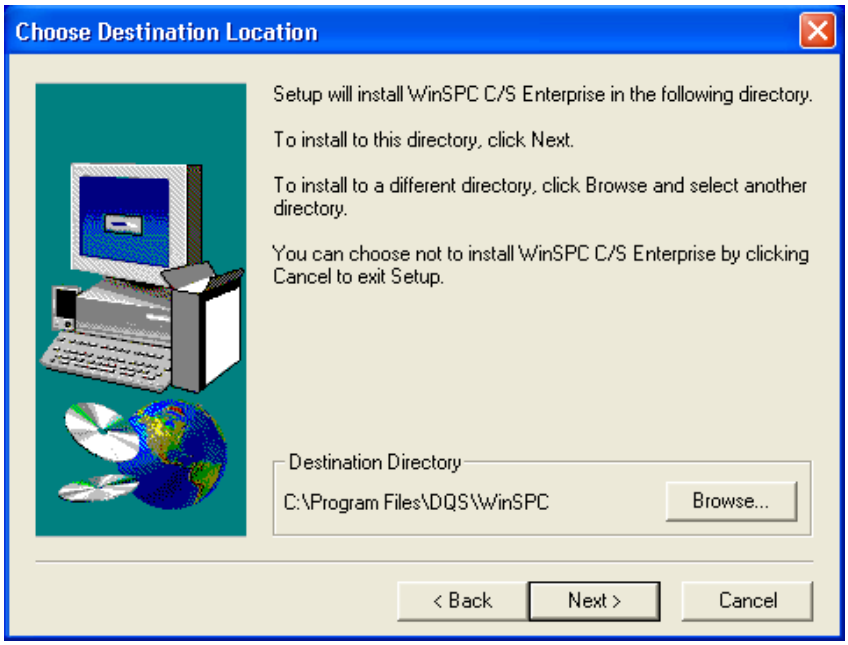
3. On the **Readme Information** screen, read the information and click **Next**.



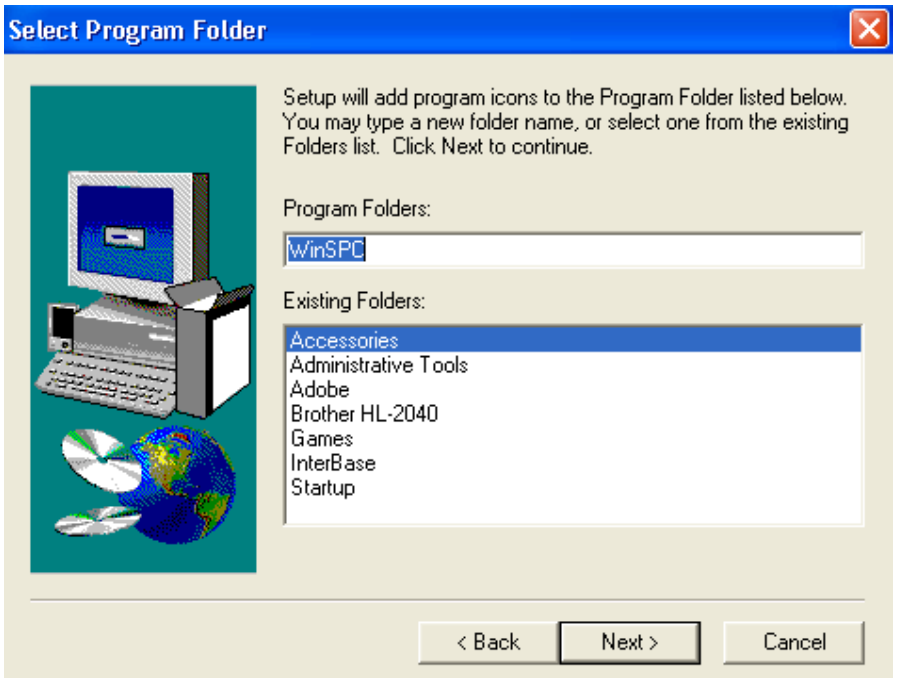
4. On the **User Information** screen, enter your **Name** and **Company** and click **Next**.



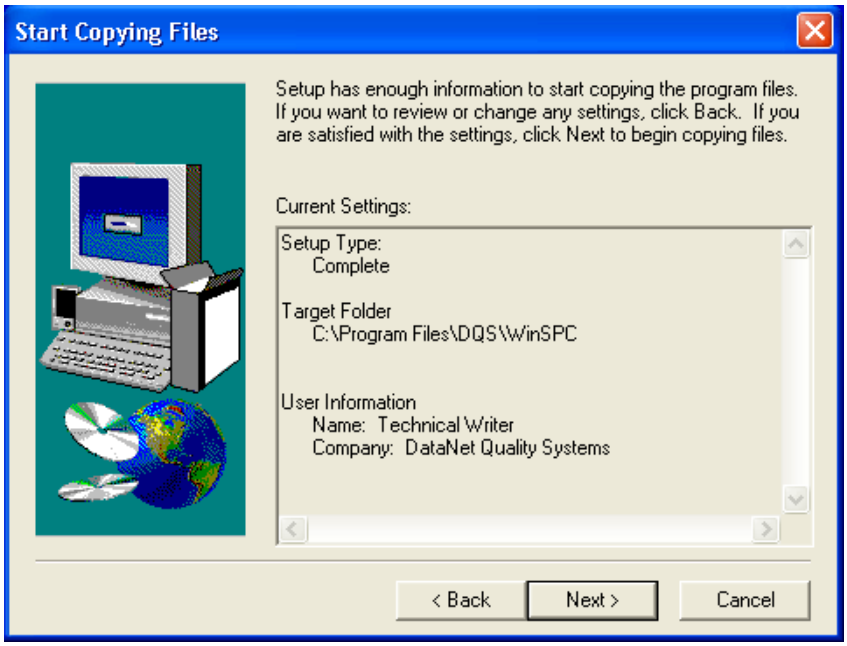
5. On the **Choose Destination Location** screen, accept the default destination location or click **Browse** and select a different location and click **Next**. Destination location refers to the folder into which WinSPC will be installed.



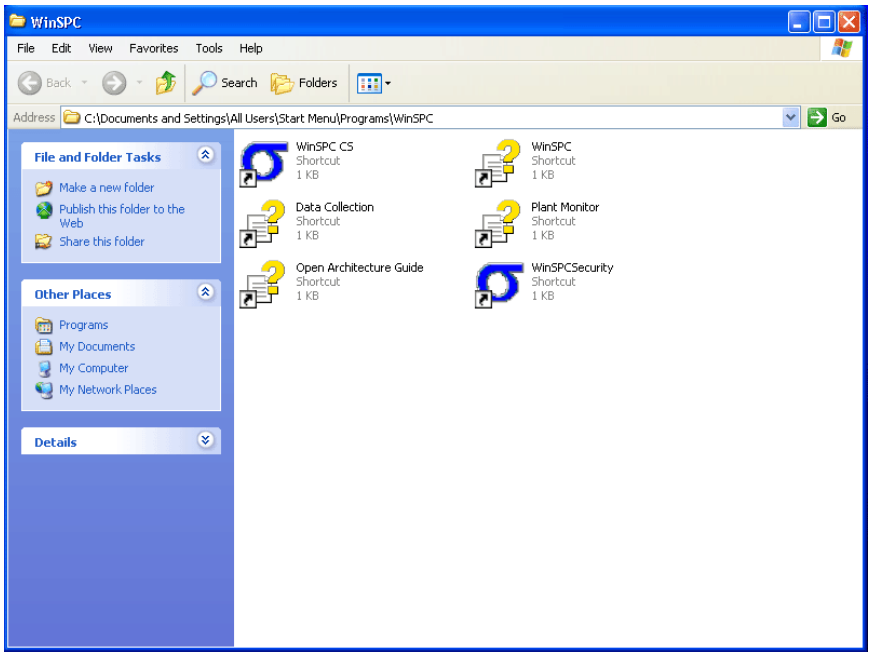
6. On the **Select Program Folder** screen, accept **WinSPC** as the folder within your **All Programs** menu in which you want the WinSPC program to be listed and click **Next** or, if preferred, specify a different folder and click **Next**.



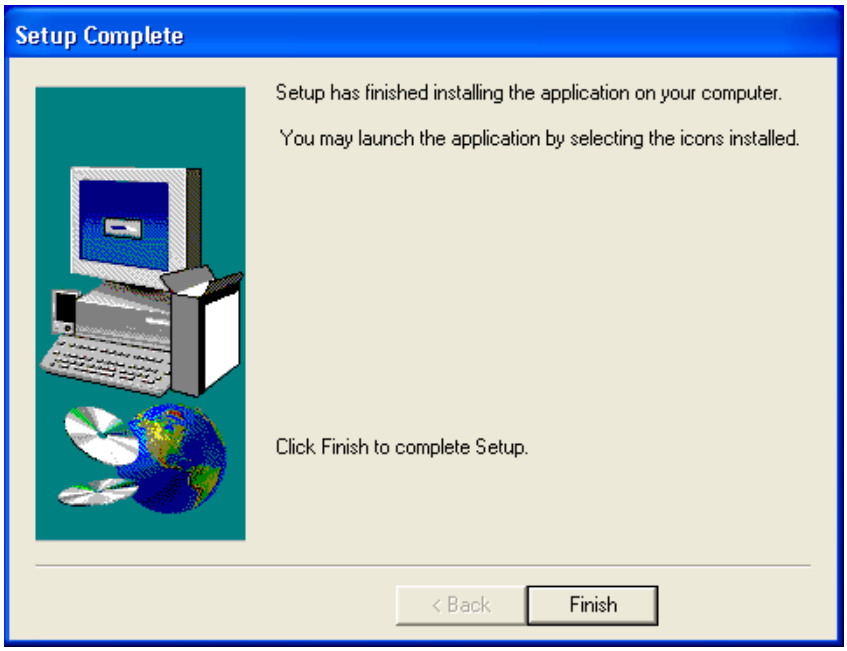
7. Click **Next**. The copying of files begins.



8. Close the folder that automatically opens.



9. On the **Setup Complete** screen, click **Finish**.



THIS COMPLETES **APPENDIX A**.

RETURN TO AND COMPLETE THE **FIRST CLIENT INSTALL AND CONFIGURATION (INITIAL STEPS)** SECTION OF THE CHAPTER YOU WERE ON BEFORE COMING TO THIS APPENDIX.

APPENDIX B: INSTALLING NJWIN FOR AN ASIAN LANGUAGE

Complete this appendix if you want to run WinSPC or the Initial System Setup Wizard in an Asian language on a client machine that is running a Romance-language version of Microsoft Windows.

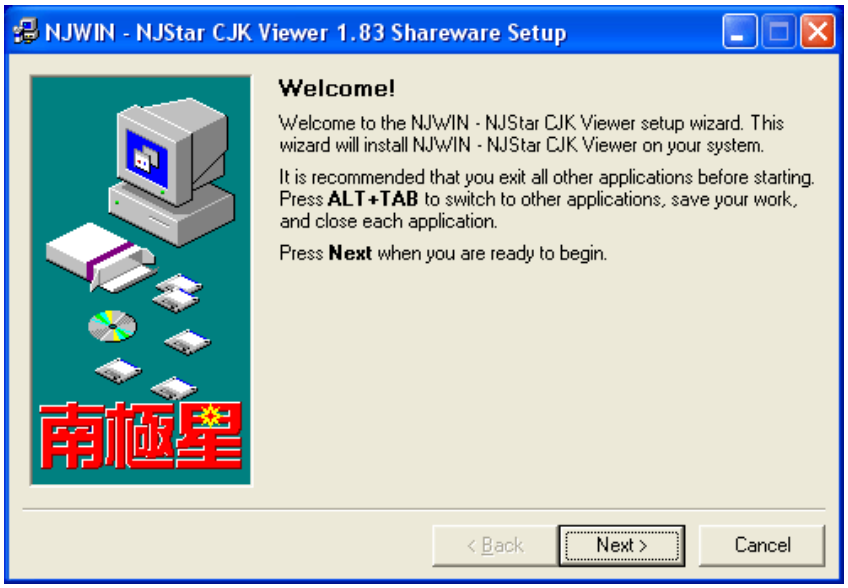
As you may know, Microsoft Windows is available in several sets of languages. One of these sets is the Romance set, a set which includes the English language. When some non-Romance language translations of WinSPC, Asian language translations particularly, are run on a Romance-language version of Windows, the characters of the WinSPC translation are improperly displayed. Installing and running NJWin remedies this for an Asian language. (The East Asian language set of Microsoft Windows may not require NJWin.)

For your convenience, a trial version of NJWin is included on the WinSPC CD. If you install and like this trial version, you can purchase a license at www.njstar.com.

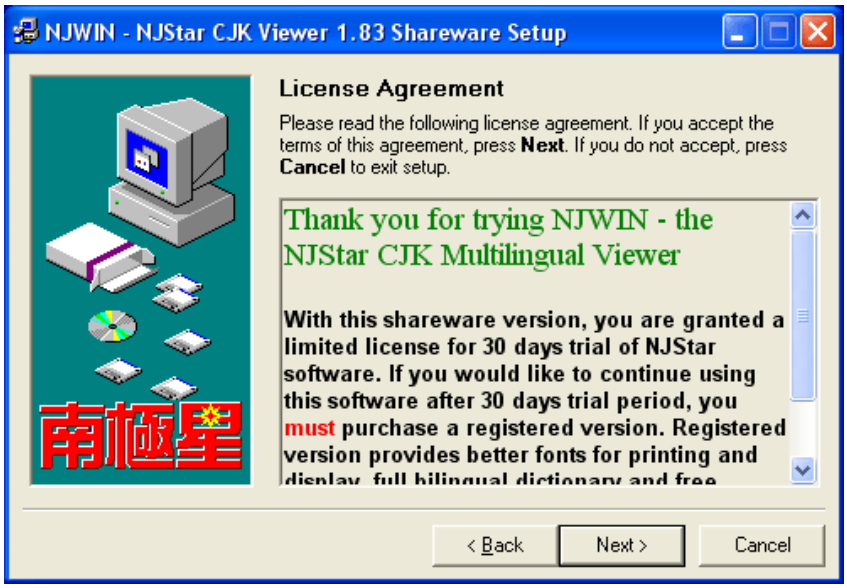
1. On the **WinSPC Setup** screen of the WinSPC CD, click **Browse Utilities** and, from the **NJWIN** folder, copy the **njwin183.exe** file to the WinSPC shared folder.

   NOTE: This step, which eliminates the need to bring the WinSPC CD to each client machine on which NJWin is to be installed, only needs to be done once.

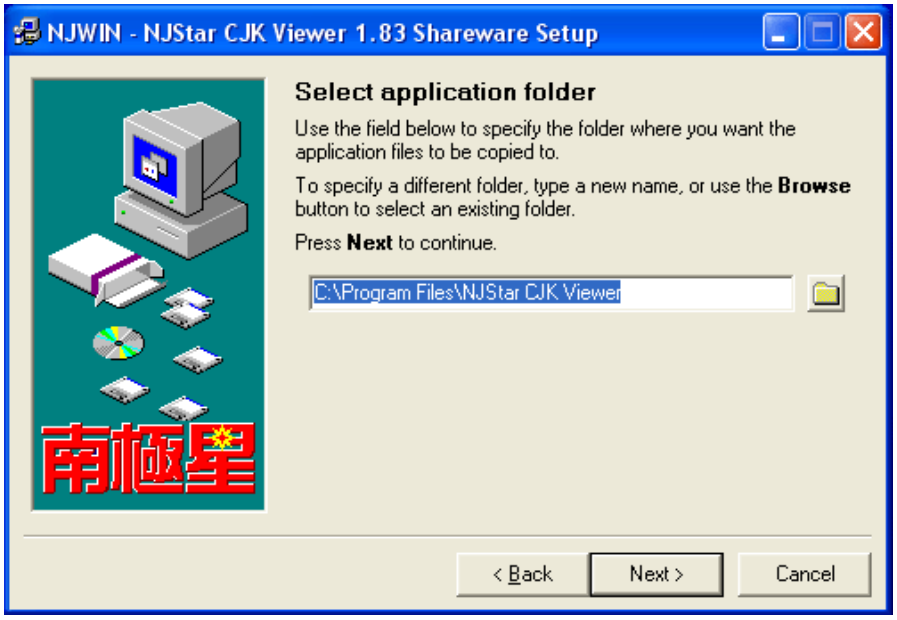
2. From a client machine on which you want to install NJWin, navigate to the shared folder and double-click **njwin183.exe**.
3. When the **Welcome** screen of the NJWin setup wizard appears, click **Next**.



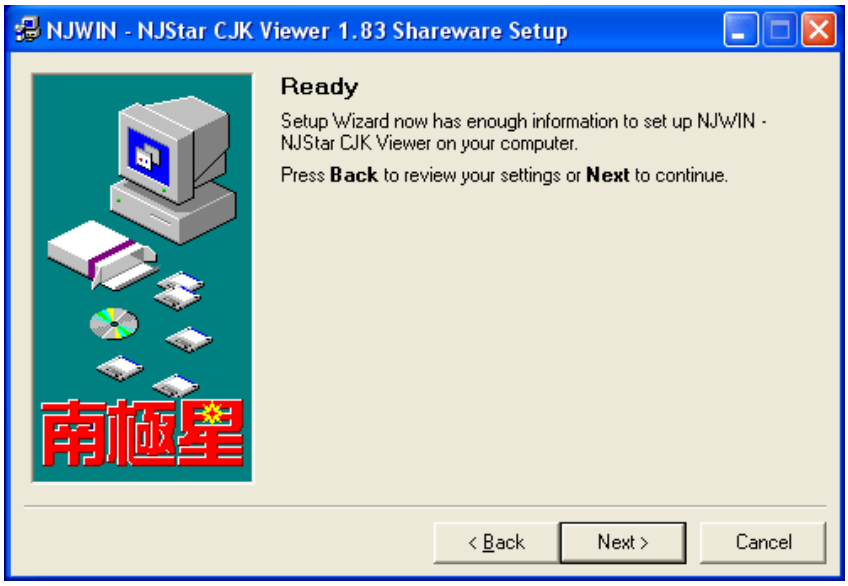
4. Read the **License Agreement** and, if you agree, click **Next**.



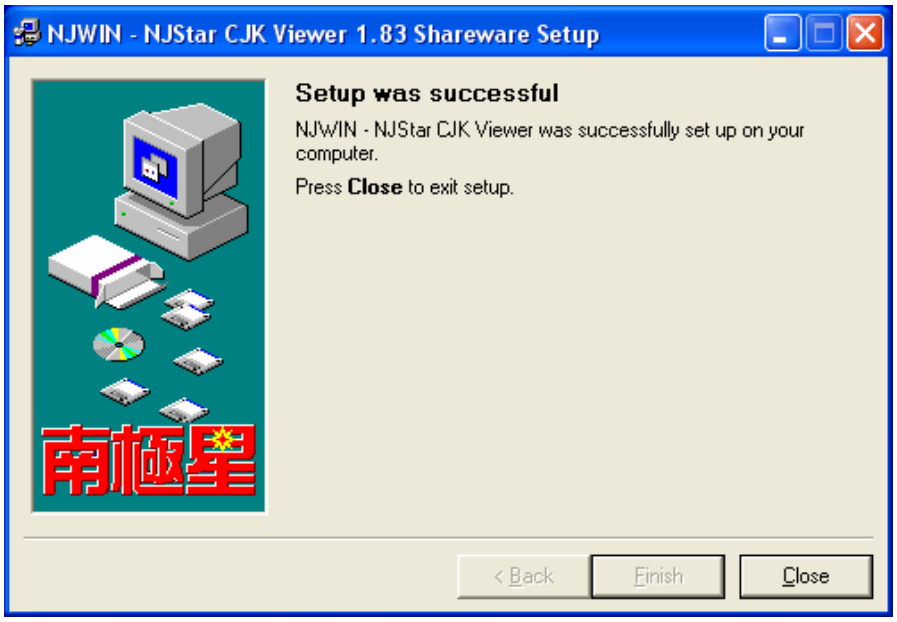
5. Specify the folder to which you want the NJWin application files copied and click **Next**.



6. When the **Ready** screen appears, click **Next**. This installs NJWin.



7. On the **Setup was successful** screen, click **Close.**



8. On the **NJWIN – NJStar CJK Viewer** screen that is displayed, select the Asian language in which you intend to run WinSPC (or the Initial System Setup Wizard) and click **OK**. This closes the viewer and launches NJWin. (See the **First Client Install and Configuration (Initial Steps)** section of the chapter specific to your database server for information on the Initial System Setup Wizard.)

9. Close the **NJWin – NJStar CJK Viewer** folder.
10. Close the WinSPC shared folder.

NOTE: NJWin must be running when WinSPC is running for WinSPC to properly display Asian language characters. If the operating system of the client machine on which NJWin is installed is Windows XP Pro and the default storage location was accepted during the installation procedure, NJWin can be launched by clicking **Start > All Programs > NJWIN – NJStar CJK Viewer > NJWIN – NJStar CJK Viewer**. Alternatively, WinSPC can be set up to launch NJWin automatically. This is accomplished through the **Use NJWin** check box, a check box found on the setup dialog boxes for system settings, station groups, stations, user groups and users. See WinSPC's Help for more information on this check box. (If you're ever in doubt as to whether or not NJWin is running, press **<Ctrl+Alt+Del>** and check the **Applications** tab of the **Task Manager**.)

THIS COMPLETES **APPENDIX B**.

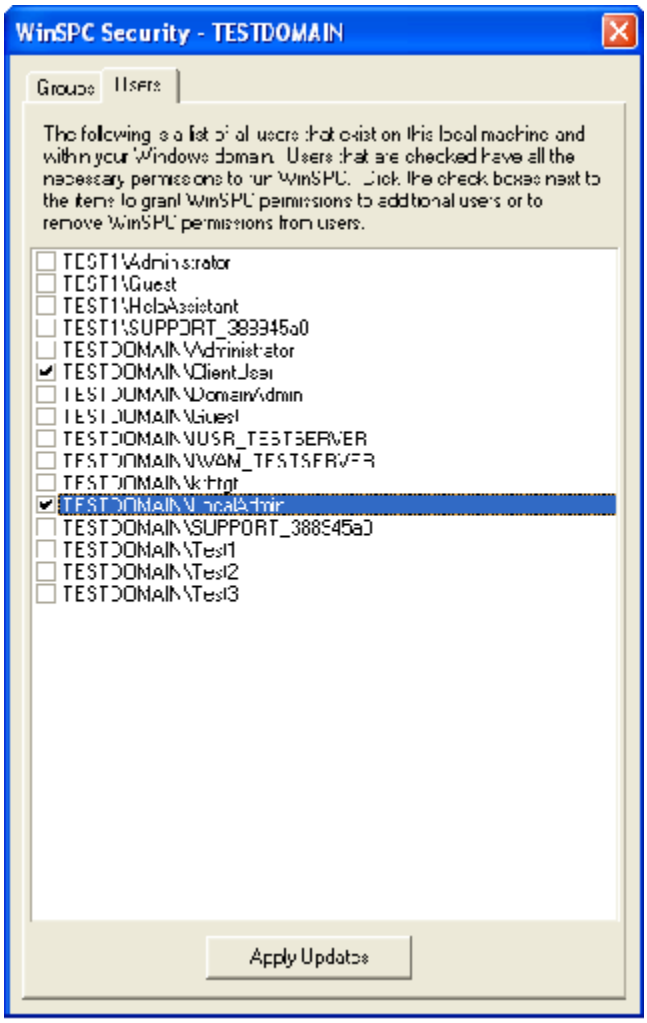
RETURN TO AND COMPLETE THE PROCEDURE YOU WERE WORKING ON PRIOR TO COMING TO THIS APPENDIX.

APPENDIX C: WINSPC SECURITY FOR WORKGROUPS

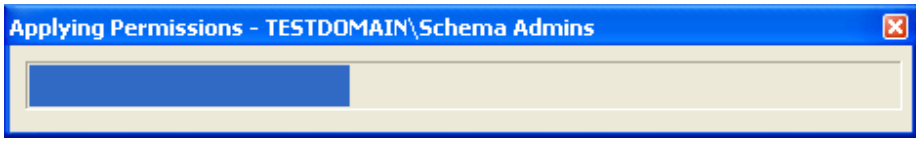
This appendix details the procedure for granting permissions to WinSPC users on a client machine that is part of a workgroup as opposed to a domain. The permissions granted are the minimum permissions required to run WinSPC. It is to be completed after step 9 of **Chapter 6: First Client Configuration (Final Steps)** or after step 7 of **Chapter 7: Additional Client Installs and Configurations**.

1. Navigate to the WinSPC shared folder created during the installation and configuration of the first WinSPC client.
2. Double-click the **Utility** folder.
3. Within the **Utility** folder, double-click the **WinSPCSecurity** icon.

4. In the **WinSPC Security** utility that appears, on the **Users tab**, check the check box for each user you want to be able to run WinSPC on the client machine.



5. Click the **Apply Updates** button. This causes a progress bar to appear.



6. Once permissions are applied to the first user, a **Permissions Applied** message is displayed. Click this message's **OK** button. This causes the **Applying Permissions** progress bar to appear for the next user.
7. Continue clicking the **Applying Permissions** message's **OK** button each time it is displayed.
8. Once permissions are applied to all selected users, exit the **WinSPC Security** utility by clicking the **X** in the upper right corner.

   NOTE: Later, if you wish to remove previously applied permissions, simply uncheck the appropriate check box and click the **Apply Updates** button.
9. Close the **Utility** folder.

THIS COMPLETES **APPENDIX C**.

IF YOU NEED TO INSTALL AND CONFIGURE ADDITIONAL CLIENTS, GO TO **CHAPTER 7: ADDITIONAL CLIENT INSTALLS AND CONFIGURATIONS** AND COMPLETE PHASE 4.

IF YOU DON'T NEED TO INSTALL AND CONFIGURE ADDITIONAL CLIENTS, THIS CONCLUDES THE ENTIRETY OF THE SETUP REQUIRED TO BEGIN USING WINSPC. FOR INSTRUCTIONS ON LAUNCHING AND LOGGING INTO WINSPC, SEE **APPENDIX F: LAUNCHING AND LOGGING INTO WINSPC**.

APPENDIX D: GRANTING SHARE AND SECURITY PERMISSIONS

This appendix details one method of granting a user or user group *share* permissions to a folder and one method of granting a user or user group s*ecurity* permissions to a file or folder. These methods are applicable to both Windows 2003 Server and Windows XP Pro.

TO GRANT SHARE PERMISSIONS TO A FOLDER

1. Log into Windows on the computer containing the folder to which you want to grant s*hare* permissions as an administrator with sufficient privileges to grant permissions.
2. Using **Windows Explorer**, navigate to and right-click the file or folder to which you want to grant *share* permissions and, from the shortcut menu, select **Sharing and Security.**
3. On the **Sharing** tab of the **<Folder Name> Properties** dialog box that is displayed, select the **Share this Folder** option, if it isn't already selected.
4. Click the **Permissions** button.
5. In the **Permissions for <Folder Name>** dialog box, click the **Add** button.
6. In the **Select Users, Computers, or Groups** dialog box that appears, enter the first letter of the user or user group to whom you want to grant s*hare* permissions and click **OK**.
7. If a **Multiple Names Found** dialog box is displayed, locate and double-click the user or user group.

8. With the user or user group selected in the **Permissions for <Folder Name>** dialog box, in the bottom pane, single-click the **Allow** check box for the desired permissions.
9. Click **OK**.
10. If you also want to grant s*ecurity* permissions for the folder, click the **Security** tab in the **<Folder Name> Properties** dialog box and, beginning at step 4 below, complete the **To Grant Security Permissions to a Folder or File** procedure.
11. If you don't want to grant *security* permissions for the folder, click **OK** in the **<Folder Name> Properties** dialog box.

TO GRANT SECURITY PERMISSIONS TO A FOLDER OR FILE

1. Log into Windows on the computer containing the folder or file to which you want to grant s*ecurity* permissions as an administrator with sufficient privileges to grant permissions.
2. Using **Windows Explorer**, navigate to and right-click the folder or file to which you want to grant *security* permissions and, from the shortcut menu, select **Properties.**
3. In the **<Folder Name> Properties** dialog box that is displayed, click the **Security** tab.
4. On the **Security** tab, click the **Add** button.
5. In the **Select Users, Computers, or Groups** dialog box that appears, enter the first letter of the user or user group to whom you want to grant *security* permissions and click **OK**.
6. If a **Multiple Names Found** dialog box is displayed, locate and double-click the user or user group.

7. With the user or user group selected in the top pane of the **Security** tab, single-click the **Allow** check box for the desired permissions in the bottom pane.
8. If it is a folder to which you've just granted security permissions and you need to propagate those permissions to the folder's child folders and files:
   a. On the **Security** tab, with the user or user group still selected, click the **Advanced** button.
   b. Check the check box labeled **Replace permission entries on all child objects with entries shown here that apply to child objects.**
   c. Click **Apply.**
   d. In the **Security** warning that is displayed, click **Yes**. This initiates the propagation of permissions to child folders and files.
   e. When the propagation completes, click the **Advanced Security Settings for <Folder Name>** dialog box's **OK** button.
9. Click **OK** in the **<Folder Name> Properties** dialog box.

THIS COMPLETES **APPENDIX D**.

RETURN TO AND COMPLETE THE PROCEDURE YOU WERE WORKING ON PRIOR TO COMING TO THIS APPENDIX.

APPENDIX E: ADDING USERS TO A USER GROUP

This appendix details one method of adding users to a user group on a domain controller. It applies to Windows 2003 Server.

1. On your domain controller, click **Start > Administrative Tools > Active Directory Users and Computers.**
2. In the left pane of the **Active Directory Users and Computers** dialog box that appears, expand the node for the domain used for your WinSPC implementation.
3. Single-click **Users**.
4. In the right pane:
   a. Multi-select all users who will run WinSPC and all local administrators who will install and configure WinSPC.
   b. Right-click any of the selected users and, from the shortcut menu, select **Add to a group**.
5. In the **Select Group** dialog box, enter the first letter of the user group to which you want to add the users and click **OK**.
6. If a **Multiple Names Found** dialog box appears, double-click the user group.
7. In the message indicating that the Add to Group operation was successfully completed, click **OK**.
8. Close the **Active Directory Users and Computers** dialog box.

THIS COMPLETES **APPENDIX E**.

GO TO **CHAPTER 7: ADDITIONAL CLIENT INSTALLS AND CONFIGURATIONS** AND COMPLETE PHASE 4.

IF YOU DON'T NEED TO INSTALL AND CONFIGURE ADDITIONAL CLIENTS, THIS CONCLUDES THE ENTIRETY OF THE SETUP REQUIRED TO BEGIN USING WINSPC. FOR INSTRUCTIONS ON LAUNCHING AND LOGGING INTO WINSPC, SEE **APPENDIX F: LAUNCHING AND LOGGING INTO WINSPC**.

APPENDIX F: LAUNCHING AND LOGGING INTO WINSPC

If you are launching WinSPC in a Microsoft Terminal Services environment, connect to the Microsoft Terminal Services server using Remote Desktop before beginning this procedure.

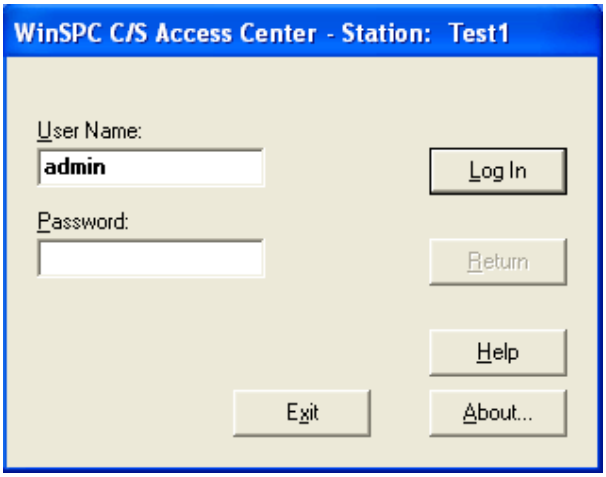
1. From the client machine, run **WinSPC**. The default path for doing this is **Start > All Programs > WinSPC > WinSPC CS**.
2. In the **WinSPC C/S Access Center** that is displayed:
   a. At **User Name**, enter a valid user name

      NOTE: If this is the first time WinSPC is being logged into, the only valid user name is **Admin**.

   b. At **Password**, enter the password associated with the user name entered above.

      NOTE: The password for the Admin user is the password created in step 6 of **Chapter 6: First Client Configuration (Final Steps)**.

   c. Click **Log In**.



d. If a message appears indicating that you have one or more unread messages, click **OK**.

NOTE: For help on using WinSPC, see WinSPC's context sensitive Help system. This Help system can be accessed from within WinSPC by clicking a **Help** button wherever one appears, pressing the **F1** key or selecting **Contents** from the **Help** menu.

THIS COMPLETES **APPENDIX F**.

APPENDIX G: HARDWARE REQUIREMENTS AND RECOMMENDED PLATFORMS

This appendix is provided to assist companies in the selection of hardware, operating systems and a database server for their WinSPC implementation. It consists of two sections, one for each of the architectures that can be adopted for WinSPC. These architectures are:

- Conventional Client/Server Architecture
- Microsoft Terminal Services Architecture

NOTE: The absence of an operating system or database server from any of the below lists means that operating system or database server is not tested in DataNet Quality Systems' lab. It does not mean that the operating system or database server is known to be incompatible with WinSPC or that DataNet Quality Systems will not do its best to support implementations using the operating system or database server.

CONVENTIONAL CLIENT/SERVER ARCHITECTURE

Minimum Hardware Requirements

Client Stations	Database Server
▪ PC with Pentium II Class processor - 500MHz ▪ 512 MB RAM for a typical Windows Vista Business station* ▪ 256 MB RAM for a typical Windows XP Pro or Windows 2000 Pro station* ▪ 200MB available local hard disk space (beyond operating system recommended space) ▪ VGA monitor and video adapter ▪ Keyboard ▪ Mouse or other pointing device ▪ CD-ROM or DVD-ROM drive (if installing WinSPC from the WinSPC CD as opposed to the web download) * By *typical* is meant a default operating system install and no other heavy RAM-consuming applications running.	▪ Server Class processor – 800MHz ▪ 512MB available RAM ▪ 10GB available local hard disk space (beyond operating system recommended space) ▪ VGA monitor and video adapter ▪ Keyboard ▪ Mouse or other pointing device ▪ CD-ROM or DVD-ROM drive NOTE: For a method to estimate database storage needs based on data specific to your company, see the *How to Estimate Database Storage Requirements* section at the end of this appendix.

Recommended Platforms

Server Operating System	Database Server	Client Operating System
Windows 2000 Server	InterBase 6	Windows 2000 Pro
Windows 2000 Server	InterBase 6	Windows XP Pro
Windows 2000 Server	Microsoft SQL Server 2000	Windows 2000 Pro
Windows 2000 Server	Microsoft SQL Server 2000	Windows XP Pro
Windows 2000 Server	Microsoft SQL Server 2005	Windows 2000 Pro
Windows 2000 Server	Microsoft SQL Server 2005	Windows XP Pro
Windows 2000 Server	Oracle9*i* Database	Windows 2000 Pro
Windows 2000 Server	Oracle9*i* Database	Windows XP Pro
Windows 2000 Server	Oracle Database 10*g*	Windows 2000 Pro
Windows 2000 Server	Oracle Database 10*g*	Windows XP Pro
Windows 2003 Server	InterBase 6	Windows 2000 Pro
Windows 2003 Server	InterBase 6	Windows XP Pro
Windows 2003 Server	Microsoft SQL Server 2000	Windows 2000 Pro
Windows 2003 Server	Microsoft SQL Server 2000	Windows XP Pro
Windows 2003 Server	Microsoft SQL Server 2005	Windows 2000 Pro
Windows 2003 Server	Microsoft SQL Server 2005	Windows XP Pro
Windows 2003 Server	Microsoft SQL Server 2005 Express	Windows XP Pro
Windows 2003 Server	Oracle9*i* Database	Windows 2000 Pro
Windows 2003 Server	Oracle9*i* Database	Windows XP Pro
Windows 2003 Server	Oracle Database 10*g*	Windows 2000 Pro
Windows 2003 Server	Oracle Database 10*g*	Windows XP Pro
Windows 2003 Server	Microsoft SQL Server 2005	Windows Vista Business
Windows 2003 Server	Oracle Database 10*g*	Windows Vista Business

TERMINAL SERVICES ARCHITECTURE

Minimum Hardware Requirements

Same minimum client station and database server requirements as for *Conventional Client/Server Architectures.*

For the *Microsoft Terminal Services Server* itself, the primary limiting factor is RAM. Approximately 25MB of RAM are consumed by each *Remote Desktop* launch of WinSPC. If a *Microsoft Terminal Services* server has 2GB of available RAM, then, it could potentially host 80 simultaneous user sessions. Additional sessions could be hosted by increasing RAM or using server clusters.

Beyond RAM, the minimum hardware requirements for the *Microsoft Terminal Services* server are:

- Server Class processor – 800MHz
- 200MB available local hard disk space (beyond operating system recommended space)
- VGA monitor and video adapter
- Keyboard
- Mouse or other pointing device
- CD-ROM or DVD-ROM drive

NOTE: One matter that bears mention but doesn't qualify as a minimum requirement is the *Microsoft Terminal Services* server's number of CPU cores. It is possible that, even with sufficient RAM, server performance could degrade unacceptably once a certain volume of simultaneous sessions is reached. It isn't practical to state what this volume is because it depends in part on how active those sessions are. A reasonable starting allowance would be 10 sessions for each CPU core.

Recommended Platforms

The operating system for the *Microsoft Terminal Services* server *must* be *Windows 2003 Server (with Service Pack 1)* or newer. Other than this, the recommended platforms for a *Microsoft Terminal Services* architecture are the same as those listed above for a conventional client/server architecture.

HOW TO ESTIMATE DATABASE STORAGE REQUIREMENTS

This estimation procedure applies equally to conventional client/server and Microsoft Terminal Services architectures.

1. Multiply the average subgroup size by 37. (E.g. 5x37=185)
2. Multiply the average percentage of subgroups in violation by 66. (E.g. 2%x66=1.32)
3. Multiply the average number of tag values per subgroup by 17.4. (E.g. 4x17.4=69.6)
4. Add the products from the above three steps. (E.g. 185+1.32+69.6=255.92)
5. Add 141.88 to the sum from step 4. (E.g. 141.88+255.92=397.80)
6. Multiply the sum from step 5 by the average number of subgroups collected per day. (E.g. 397.80x10,000=3,978,000)
7. Divide the product from step 6 by 1,000,000. (E.g. 3,978,000/1,000,000=3.978.)

The answer you get from step 7 is the number of MB of disk space you can expect to be consumed per day of WinSPC operation.

THIS COMPLETES **APPENDIX G.**

APPENDIX H: SPECIAL CONSIDERATIONS REGARDING VISTA BUSINESS

By taking three considerations into account, WinSPC can be deployed and fully used on client stations running Microsoft's Vista Business operating system. The first consideration concerns User Account Control and affects all Vista Business stations. The second consideration concerns archives and, similarly, applies to all Vista Business stations. The third consideration concerns database server connections and affects only implementations consisting of a Microsoft SQL Server 2005 database server on a Windows 2003 Server.

CONSIDERATION REGARDING USER ACCOUNT CONTROL (UAC)

UAC is a security control in Vista Business. When enabled, it precludes WinSPC users from:

- Upgrading WinSPC.
- Exporting text files of data or specifications.
- Installing Custom Web Reporter.
- Collecting data from an OPC server when that server is running on a computer different from the WinSPC client using it to collect data *and* the WinSPC client has the **Use Data Advise** option enabled.

To be able to perform these functions, with the exception of the final one, UAC must be disabled. For the final function, while disabling UAC certainly permits it to be performed, it is also possible that your network administrator, depending on your network security, may be able to configure DCOM settings on your client and OPC server so that it can be performed with UAC enabled.

The procedure for disabling UAC is:

1. Log into the Vista Business client station as a local administrator.
2. From the Control Panel click **User Accounts**.
3. In the **User Accounts** window that appears, click **Turn User Account Control on or off**.
4. If a **Windows needs your permission to continue** message appears, click the **Continue** button.
5. In the **Turn User Account Control On or Off** dialog box, uncheck the **Use User Account Control (UAC) to help protect your computer** check box.
6. Click **OK**.
7. When the message indicating your computer must be restarted, click **Restart Now**.

CONSIDERATION REGARDING ARCHIVES

In order to archive WinSPC data and cleanly perform other archive-related tasks on a Vista Business client, a BDE Administrator setting must be modified. To do this:

1. Log into the Vista Business client as an administrator. If you are already logged in as an administrator, ensure WinSPC is not running.
2. From the **Control Panel**, launch **BDE Administrator**.
3. In **BDE Administrator**, in the **Configuration** tab's **Drivers and System** pane (the left pane), click **Configuration > Drivers > Native > PARADOX**.

4. In the **Definition** pane (the right pane), at **NET DIR**, replace the path displayed with the path to the WinSPC program files, the default location for which is **C:\Program Files\DQS\WinSPC**.
5. From the **Object** menu, click **Apply**.
6. In the **Warning** that appears instructing that all BDE applications must be restarted in order for the changes to take effect, click **OK**.

Whether or not UAC is enabled, a Vista Business client station with the **NET DIR** setting modified as instructed above will be able to archive WinSPC data and perform archive-related tasks.

CONSIDERATION REGARDING MICROSOFT SQL SERVER 2005 DATABASE SERVER ON WINDOWS 2003 SERVER

When a WinSPC client running Vista Business connects to a Microsoft SQL Server 2005 database server and that database server is running on a Windows 2003 Server operating system, WinSPC may on occasion display the following error:

General SQL error. Possible network error. Write to SQL Server failed. General network error. Check your documentation.

Modifying a particular registry key resolves this issue.

WARNING: Please consult your network administrator prior to completing the below procedure. Modifying the registry key referred to disables one of Windows Server 2003's security measures.

1. Log into Windows Server 2003 as an administrator.
2. Using the Regedit utility, Navigate to the following registry key: **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters**.

3. To this key, add the following DWORD value:
   - Name: **SynAttackProtect**
   - Value: **0**
4. Restart the Windows 2003 Server machine.

THIS COMPLETES **APPENDIX H.**