

**Tivoli Storage Management
Decision Support Loader
Release Notes
Version 4.1.0
July 2000**



Tivoli Storage Management Decision Support Loader (July, 2000)

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Contents

Product Overview	1
System Requirements	2
Software Requirements	2
Server and Databases Supported	2
Hardware Requirements	3
Installing and Opening the Decision Support Loader	3
RDBMS Database Schemas	4
Opening the Decision Support Loader	4
Uninstalling or Reinstalling the Decision Support Loader	5
Setting up ODBC Data Source Connections	5
Starting your ODBC Setup	6
Tivoli Storage Manager ODBC setup	8
DB2 ODBC Setup	9
SQL ODBC Setup	16
Oracle ODBC Setup	21
Configuring the Decision Support Loader	22
Configuring Using Interface Setup Options	23
Server List	23
Table List	24
RDBMS	25
Post Processing	25
Advanced Configuration Tasks	25
Modifying RDBMS Advanced Settings	26
Datasets/day Allowed	27
Prune Data Older Than	27
Error Log Trace Level	27
Severity Levels to Extract	28
RDBMS Type	28
Configuring the Decision Support Loader Using a Configuration File	29
Running the Decision Support Loader	30
Scheduling a Decision Support Loader Run	30
Troubleshooting	32
Contacting Customer Support	32

Release Notes

This document describes the Tivoli Storage Management Decision Support Loader, a prerequisite, companion product for the Tivoli Decision Support for Storage Management Analysis Version 4.1.0 product. This document is the most current information for the Tivoli Storage Management Decision Support Loader and takes precedence over all other documentation. This document is intended for systems administrators who are responsible for Tivoli Storage Manager installations.

See the *Tivoli Decision Support for Storage Management Analysis Release Notes* for more information about that product.

Please review these notes thoroughly before installing or using this product.

These release notes include the following topics:

- Product Overview on page 1
- System Requirements on page 2
- Installing and Opening the Decision Support Loader on page 3
- Setting up ODBC Data Source Connections on page 5
- Configuring the Decision Support Loader on page 22
- Running the Decision Support Loader on page 30
- Troubleshooting on page 32
- Contacting Customer Support on page 32

Product Overview

The Tivoli Storage Management Decision Support Loader (Decision Support Loader) is used to manage the data collection required by the Tivoli Decision Support for Storage Management Analysis (Storage Management Analysis) product.

The Decision Support Loader transfers data from a Tivoli Storage Manager (TSM) server database to a Relational Database Management System (RDBMS) reporting database. The reporting database can then be queried to generate multidimensional views and detailed reports. These views and reports provide information that can guide you in making decisions about the health and performance of a TSM environment.

The Decision Support Loader performs the following tasks:

- Extracts data from a Tivoli Storage Manager server using the TSM ODBC driver

- Formats the extracted data as required by the RDBMS reporting database, and provides a unique key for each piece of extracted data
- Writes data to the RDBMS reporting database using the OEM ODBC driver
- Controls the expiration of data from the reporting database
- Generates a dynamic HTML log file to record processing results

You can use the Decision Support Loader to concurrently transfer data from multiple TSM servers to a shared RDBMS database server. See "Installing and Opening the Decision Support Loader" on page 3 for more information.

You can run the Decision Support Loader manually, using the graphical user interface, or use a scheduler to run it automatically. See "Running the Decision Support Loader" on page 30 for more information about scheduling.

The Decision Support Loader is packaged with the Storage Management Analysis product. Package installation and usage instructions are provided in separate sections later in this document. Required RDBMS database schemas are automatically installed with the Decision Support Loader. These database schemas should be set up by your database administrator. See the Tivoli Decision Support for Storage Management Analysis Release Notes for more information about the supplied RDBMS database schemas.

System Requirements

This section describes the system requirements, including software and hardware, necessary to install and use the Decision Support Loader.

Software Requirements

The following prerequisite software must be installed on the Decision Support Loader workstation:

- Microsoft Windows NT 4.0, Service Pack 5
- Microsoft ActiveX Control Pad (or Microsoft Office 97)
- The following client software, including the latest 32-bit ODBC drivers:
 - Tivoli Storage Manager administrative client, version 3.7 PTF 2 or higher
 - RDBMS database clients

Server and Databases Supported

The Decision Support Loader supports the Tivoli Storage Manager server, version 3.7 PTF 2 or higher

Supported RDBMS databases include:

- IBM DB2 version 5.2
- Microsoft SQL version 7.0
- Oracle version 8.1.5

Hardware Requirements

Tivoli products that support Windows, Windows 95, Windows NT, OS/2, and NetWare must be installed on an IBM PC AT-compatible machine. Tivoli does not support platforms (such as the NEC PC 98xx series) that are not 100% compatible with the IBM PC AT.

Each installation of the Decision Support Loader requires:

- A workstation that has at least 8MB of free disk storage and 128MB of memory
- A CD-ROM device

Installing and Opening the Decision Support Loader

Before you install the Decision Support Loader, see "System Requirements" on page 2 to determine the prerequisite and dependent software needed. Make sure all the preliminary requirements are met.

Note: We recommend that you install the Decision Support Loader on a dedicated workstation. Running the Decision Support Loader and the Storage Management Analysis product on the same machine can impact performance.

You can concurrently transfer data from multiple TSM servers to a shared RDBMS database server by installing the Decision Support Loader on multiple workstations. To use this configuration, you must set up each TSM server as an ODBC data source, and configure each Decision Support Loader installation to access the appropriate TSM server and shared RDBMS database server. See "Tivoli Storage Manager ODBC setup" on page 8 and "Configuring Using Interface Setup Options" on page 23 for more information.

Warning: Do not use multiple Decision Support Loader installations to transfer data from the same TSM server. Each Decision Support Loader installation should be configured to extract data from a unique TSM server.

Perform the following steps to install the Decision Support Loader:

1. Insert the Tivoli Decision Support for Storage Management Analysis CD-ROM into your CD-ROM drive.
 - The setup program automatically starts (autorun) as soon as you load the CD-ROM. If autorun is disabled, double-click on *setup.exe* in the CD root directory to start the setup program.
2. Select **Tivoli Storage Management Decision Support Loader**.
3. The Read-me file will appear. Click **Accept** to continue.
4. Read the Welcome message and close any open applications. Click **OK** to continue.

5. Click the installation button to install the Decision Support Loader in the default directory (*program files\tivoli\tsm\decision*). Click **Change Directory** to select a different installation directory, and then click the installation button.
6. A dialog box prompting you to select a Program Group appears. Click **Continue** to accept the default or select one of the **Existing Groups** and then click **Continue**. Data access components will be installed, and a progress indicator will appear showing the program files installation process. When the process completes, a Setup Complete message appears. Click **OK** to exit the installation.

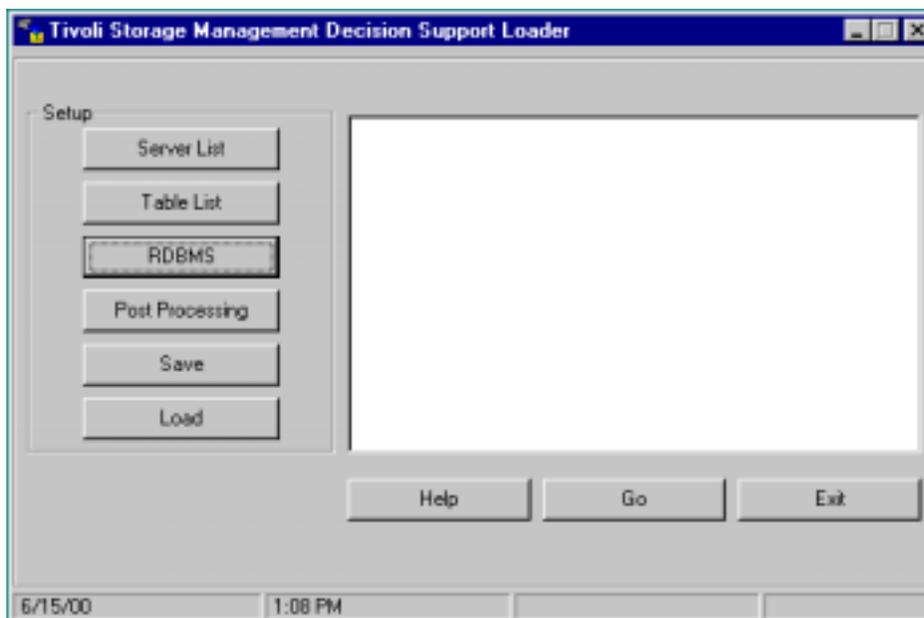
RDBMS Database Schemas

During the Decision Support Loader installation, required RDBMS database schemas are installed in the same directory as the Decision Support Loader. The default installation path for the database schemas is: *program files\tivoli\tsm\decision\schemas*. See your database administrator for information about setting up RDBMS schemas. See the *Tivoli Decision Support for Storage Management Analysis Release Notes* for more information about these schemas.

Opening the Decision Support Loader

To open the Decision Support Loader program from the default installation directory, select:

- **Start > Programs > Tivoli Storage Manager > Decision Support Loader.**



Note: An Auto Start Countdown dialog box appears, prompting you to click Cancel within 30 seconds to override the autostart process and manually configure and run the Decision Support Loader.

After you have configured the Decision Support Loader, you can use the **Auto Start Countdown** to run the product automatically. To do this, open the Decision Support Loader and let the timer run out. The Decision Support Loader will run, using the *TSMDSL.ini* configuration file. See "Running the Decision Support Loader" on page 30 for more information.

Uninstalling or Reinstalling the Decision Support Loader

To uninstall the Decision Support Loader, make sure the product is not running, and then do the following:

1. From the Windows NT desktop, select **Start > Settings > Control Panel**.
2. Double-click **Add/Remove Programs** to open the **Add/Remove Programs Properties** dialog box.
3. Select the **Install/Uninstall** tab, select **Tivoli Storage Management Decision Support Loader 4.1.0** from the scroll box, and click **Add/Remove** to uninstall the program.

Warning: During the uninstallation process, a **Shared Component** dialog box might prompt you to retain or uninstall shared system resources. We recommend that you click **Remove None** to retain all shared system resources, unless you are certain a specific component is not used by another program.

To reinstall the Decision Support Loader, follow the installation instructions. You must first remove any currently installed version of the product.

Setting up ODBC Data Source Connections

Before you configure the Decision Support Loader, you need to set up your TSM servers and RDBMS reporting database servers as ODBC data sources. ODBC is an interface that lets many different programs access data in relational databases. The information required for ODBC setup will vary, depending on your database types and system configuration. Before you begin setting up your data source connections, see your database administrator for specific connection information.

Note: See "Software Requirements" on page 2 for information about supported ODBC drivers.

This section begins with a procedure for starting your ODBC setup by opening the **Create New Data Source** dialog box ("Starting your ODBC Setup" on page 6). You can use the **Create New Data Source** dialog box to start the appropriate setup wizard for the database drivers supported by the Decision Support Loader.

After you have completed the initial procedure, see the following sections for specific ODBC configuration examples:

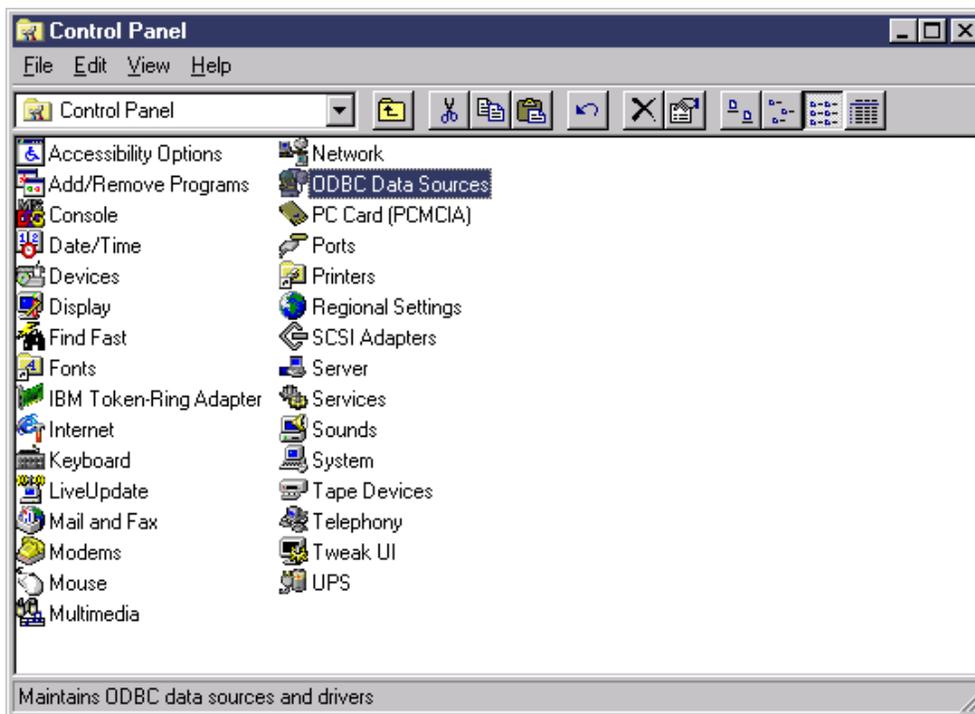
- Tivoli Storage Manager ODBC setup on page 8

- DB2 ODBC Setup on page 9
- SQL ODBC Setup on page 16
- Oracle ODBC Setup on page 21

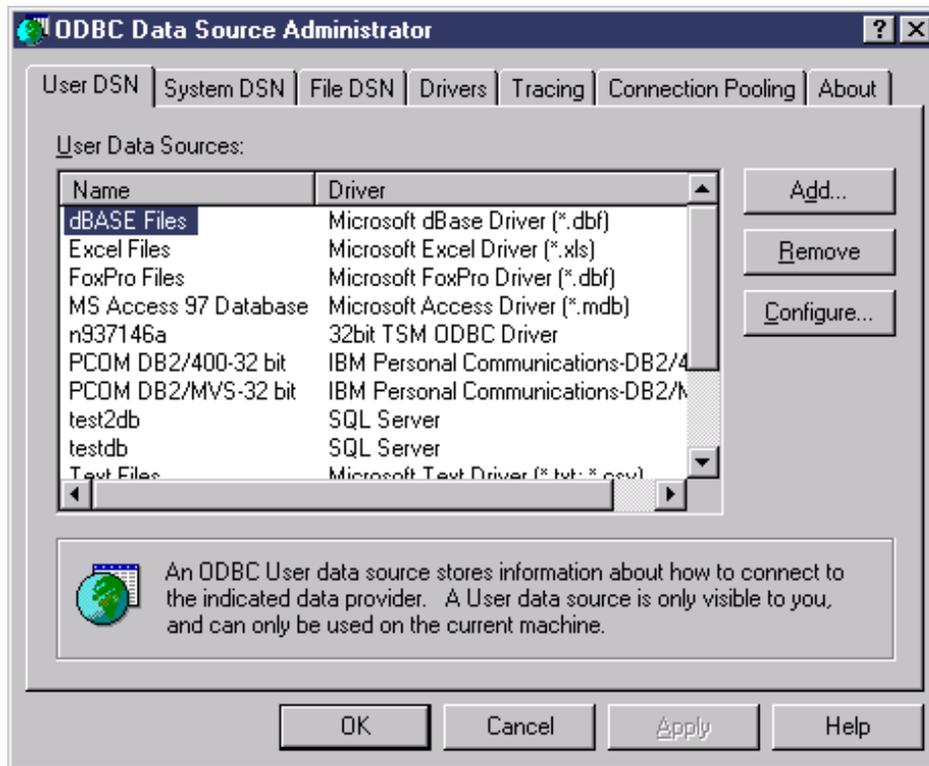
Starting your ODBC Setup

Follow these steps to open the **Create New Data Source** dialog box:

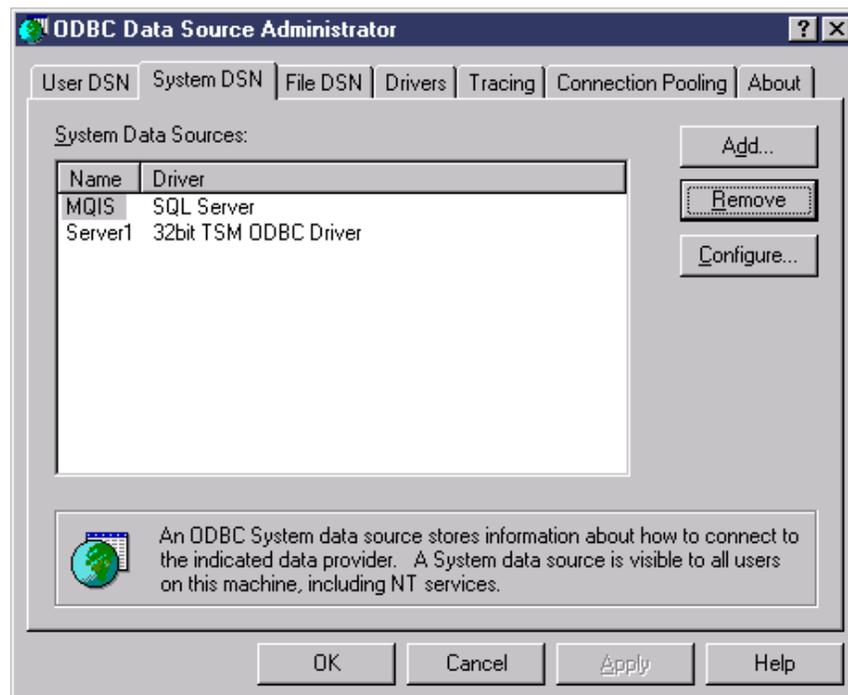
1. From the Windows NT desktop, select **Start > Settings > Control Panel** to open the **Control Panel**.



2. Double-click **ODBC Data Sources** to open the **ODBC Data Source Administrator**.



3. Select the **System DSN** tab to open the **System Data Sources** page.



4. Click **Add** to open the **Create New Data Source** dialog box.

Tivoli Storage Manager ODBC setup

1. From the **Create New Data Source** dialog box, select **32bit TSM ODBC Driver**.

(See "Starting your ODBC Setup" on page 6 for instructions on opening the **Create New Data Source** dialog box.)
2. Click **Finish** to open the **TSM ODBC Setup** wizard.

The screenshot shows the 'TSM ODBC Setup' dialog box. It contains the following fields and options:

- TSM Server Name:** SERVER1
- Communication Method:** TCP/IP
- Information for Communication Method:**
 - Server Address:** 8.24.3.12
 - ICP Port Number:** 1500
- Write trace file, odbcadsm.out, to application's working directory.
- Buttons:** OK, Cancel

3. Enter a symbolic name for the TSM server, the server address and the port number.
Change the default communication method if required by your system configuration.

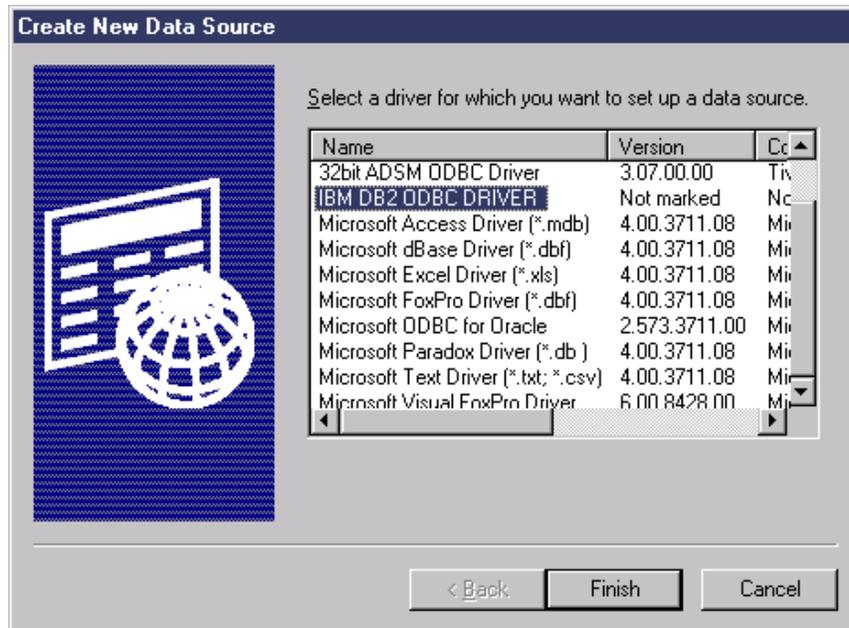
Note: If you are installing the Decision Support Loader on multiple workstations to concurrently transfer data from multiple TSM servers to a shared RDBMS database server, be sure to specify a unique symbolic server name for each TSM server.

Click **OK** to exit the setup wizard and return to the **Data Source Administrator**.

From the **Data Source Administrator**, you can set up more ODBC data source connections or exit the ODBC data source setup.

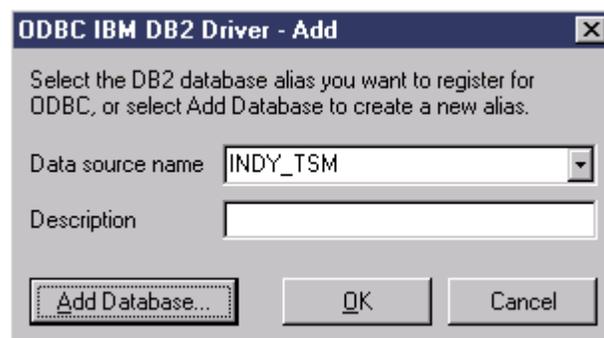
DB2 ODBC Setup

1. From the **Create New Data Source** dialog box, select **IBM DB2 ODBC DRIVER**. (See "Starting your ODBC Setup" on page 6 for instructions on opening the **Create New Data Source** dialog box.)

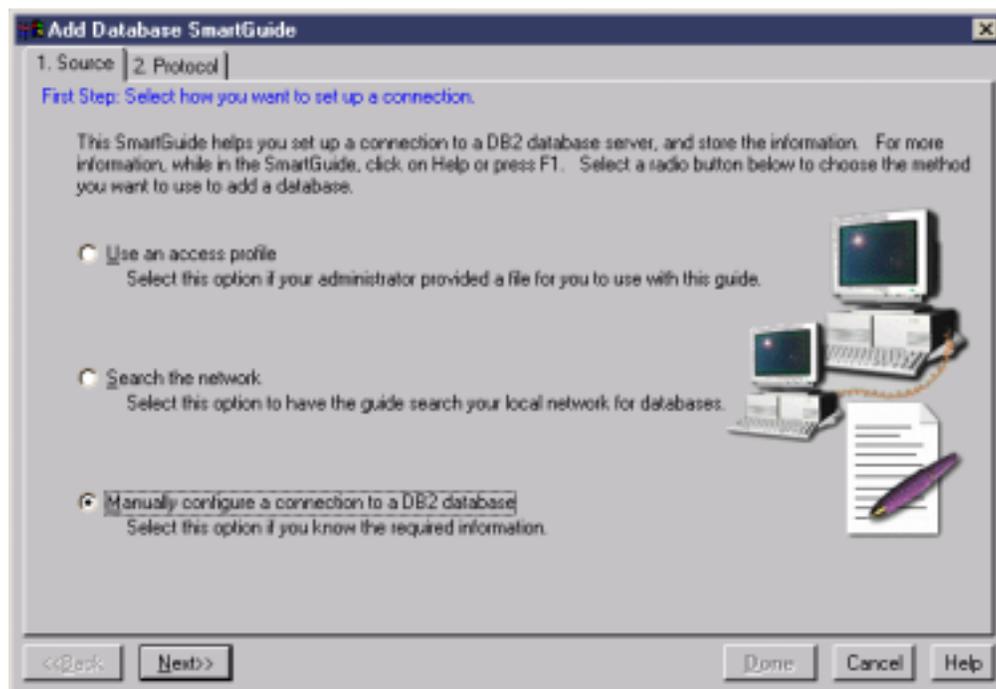


2. Click **Finish** to open the **ODBC IBM DB2 Driver - Add** dialog box.

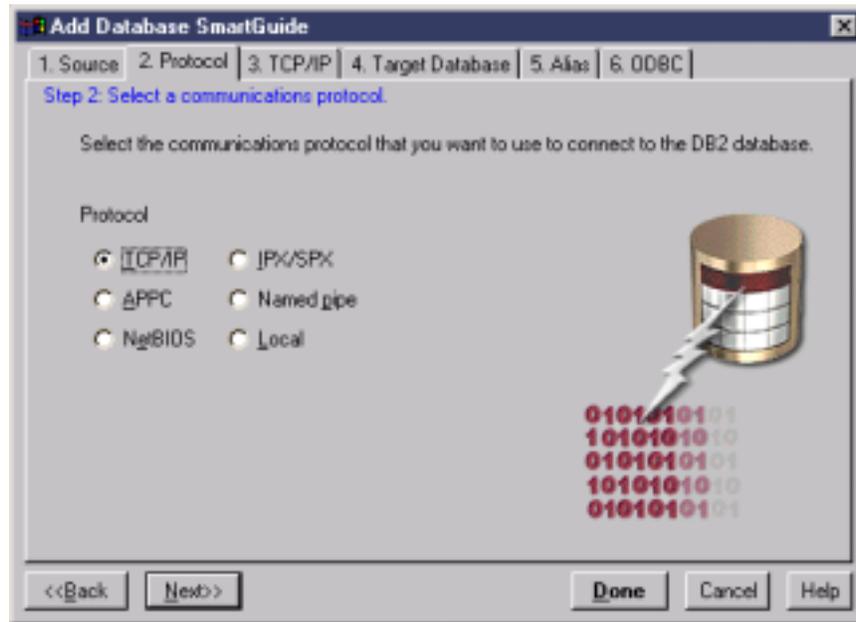
Note: During your initial DB2 product installation, you may have already set up an ODBC data source connection. The following steps apply for a new database configuration.



3. Click **Add Database** to set up a new database as an ODBC data source. The **Add Database SmartGuide** will appear.



4. Select the third radio button to manually configure your ODBC setup. (You can also use a predefined access profile to automate the setup process. Click **Help** for more information about automated setup.) Click **Next** to open the **Protocol** page. Four additional configuration tabs will also appear.



Setting up ODBC Data Source Connections

5. Select the communications protocol required by your system configuration. Click **Next** to open the parameters page for the protocol you have selected. (The example below shows the TCP/IP parameter page. You will see a different page if you select a different protocol.)

The screenshot shows a dialog box titled "Add Database SmartGuide" with a close button (X) in the top right corner. The dialog has a tabbed interface with six tabs: "1. Source", "2. Protocol", "3. TCP/IP", "4. Target Database", "5. Alias", and "6. ODBC". The "3. TCP/IP" tab is selected. Below the tabs, the text reads "Step 3: Specify TCP/IP communications parameters." followed by an explanatory paragraph: "The hostname identifies a system on the TCP/IP network. A port number is associated with each DB2 server instance on that system. In the hostname field, type the server system's hostname or IP address. In the port number field, type the port number associated with the DB2 instance that contains the target database." There are three input fields: "Hostname" with the value "123.45.123.4", "Port number" with the value "1234", and "Service name" which is empty and followed by "(Optional)". To the right of the input fields is an illustration of a database cylinder with a lightning bolt striking it, and below that, a stack of binary code (01010101). At the bottom of the dialog, there are four buttons: "<<Back", "Next>>", "Done", "Cancel", and "Help".

Add Database SmartGuide

1. Source | 2. Protocol | 3. TCP/IP | 4. Target Database | 5. Alias | 6. ODBC

Step 3: Specify TCP/IP communications parameters.

The hostname identifies a system on the TCP/IP network. A port number is associated with each DB2 server instance on that system. In the hostname field, type the server system's hostname or IP address. In the port number field, type the port number associated with the DB2 instance that contains the target database.

Hostname: 123.45.123.4

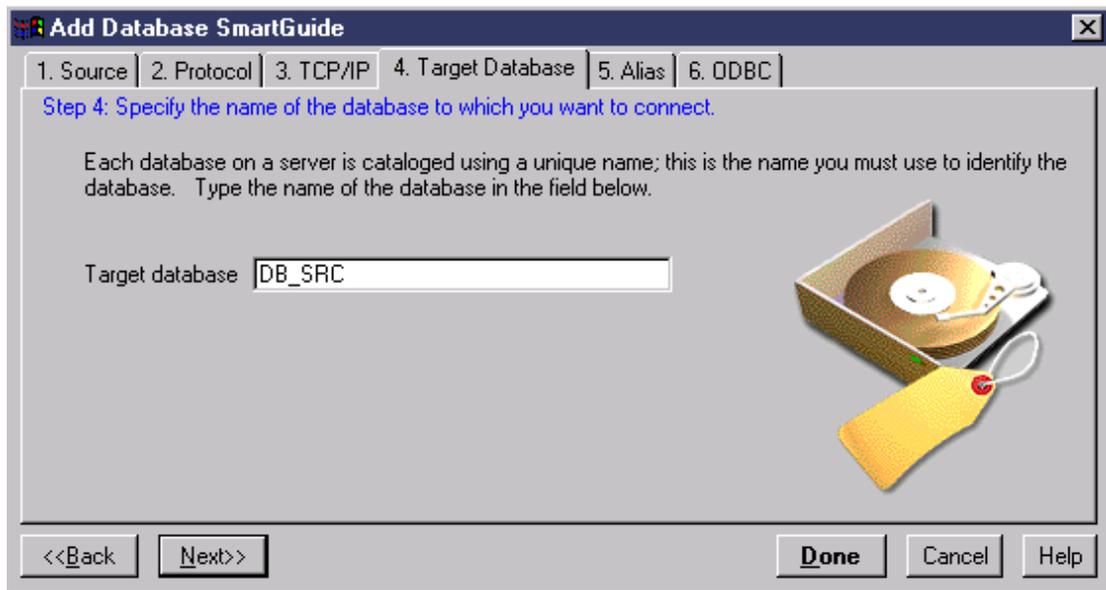
Port number: 1234

Service name: (Optional)

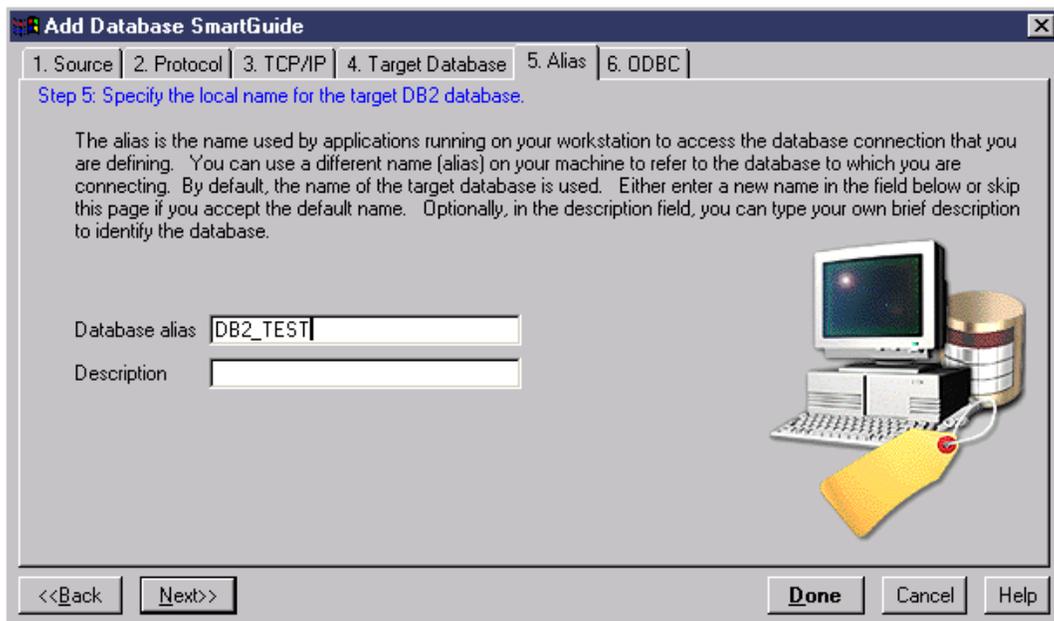
Note: You must configure the communications protocol before using it.

<<Back | Next>> | Done | Cancel | Help

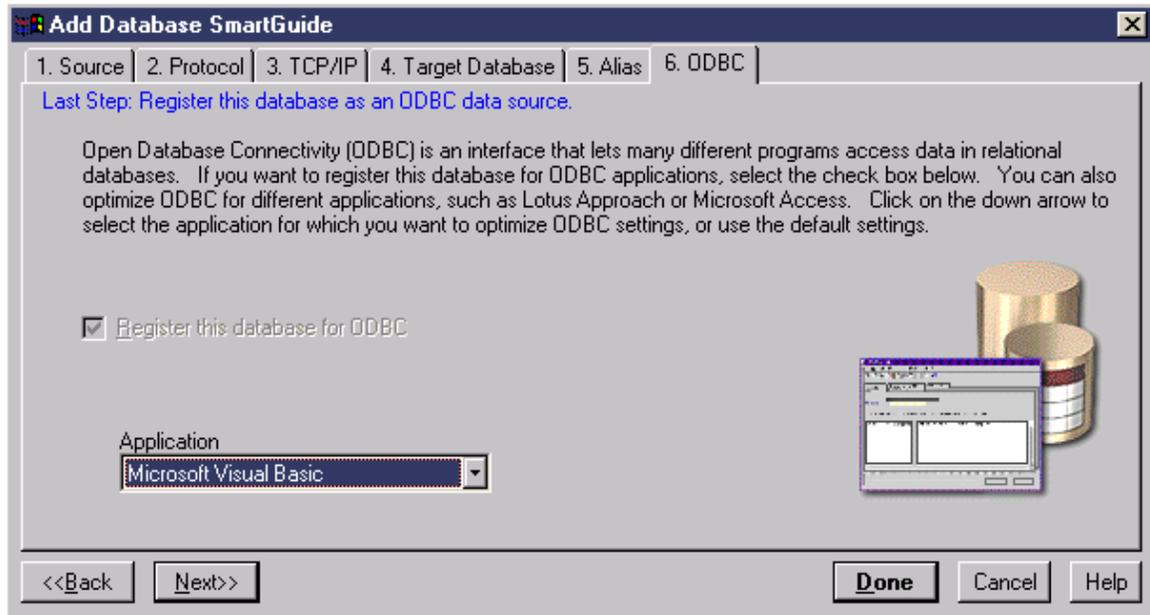
6. Enter the DB2 server hostname (IP address or system name) and port number. Click **Next** to open the **Target Database** page.



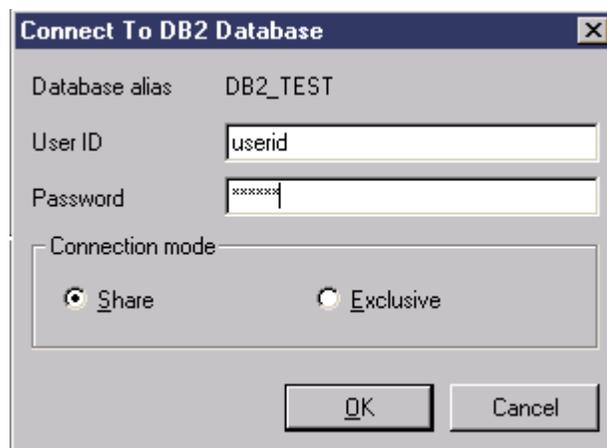
7. Enter the name of the database you want to set up as an ODBC data source. You must enter the unique name specified for the database when it was created. See your database administrator for this database name. Click **Next** to open the **Alias** page.



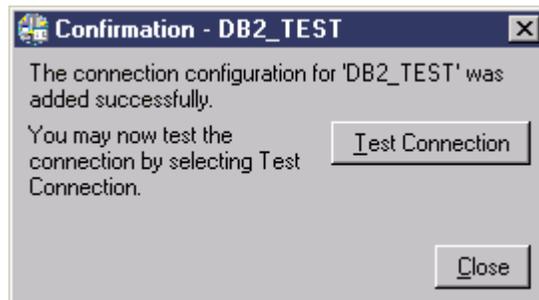
8. Enter an alias name and description if you want to create a symbolic name for the target database. If you do not specify an alias, the unique name specified for the database when it was created will be used as the default local alias. Click **Next** to open the **ODBC** page.



9. Make sure the check box next to **Register this database for ODBC** is checked. Select **Microsoft Visual Basic** from the **Application** dropdown list. Click **Done** to open the **Connect to DB2 Database** dialog box.



10. Enter the User ID and Password required to access the DB2 database. Click **OK** to open the **Confirmation** dialog box.



11. Click **Test Connection** to test the database connection.



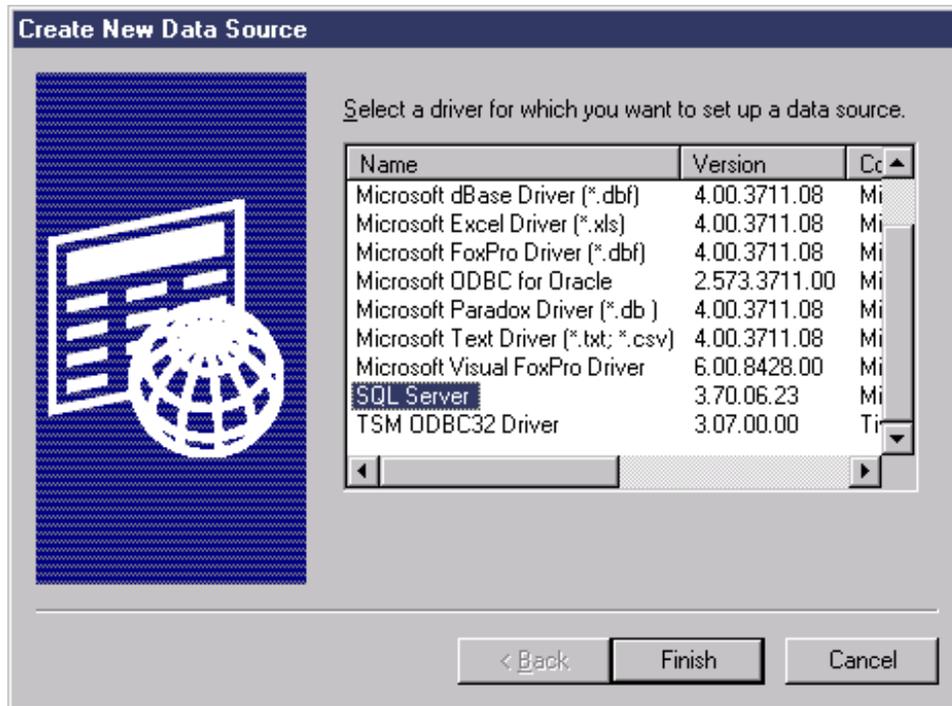
12. Click **OK** to exit the setup wizard and return to the **Data Source Administrator**. If the data source test failed, you can repeat the DB2 ODBC Setup procedure to adjust option settings.

From the **Data Source Administrator**, you can set up more ODBC data source connections or exit the ODBC data source setup.

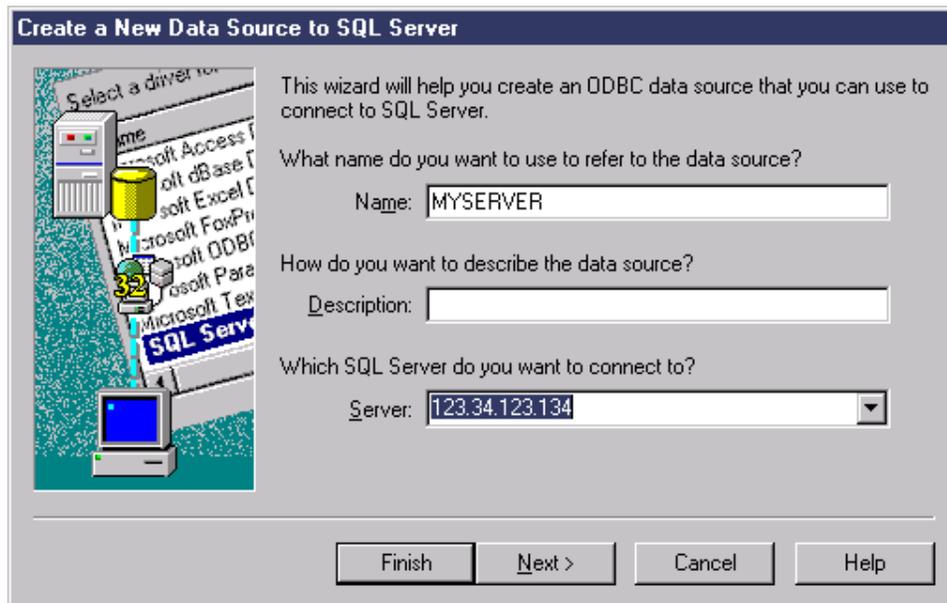
SQL ODBC Setup

1. From the **Create New Data Source** dialog box, select **SQL Server**.

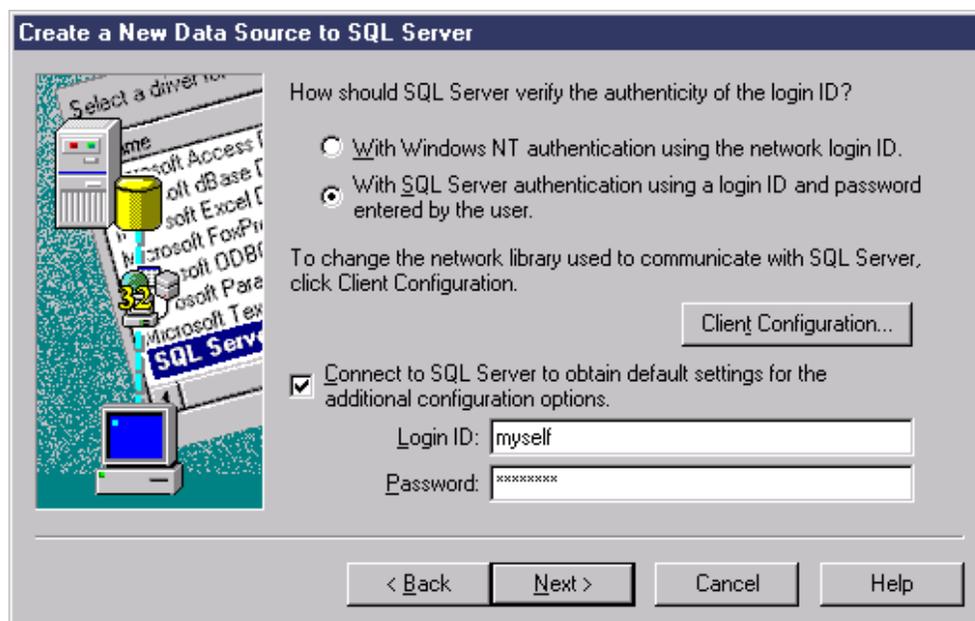
(See "Starting your ODBC Setup" on page 6 for instructions on opening the Create New Data Source dialog box.)



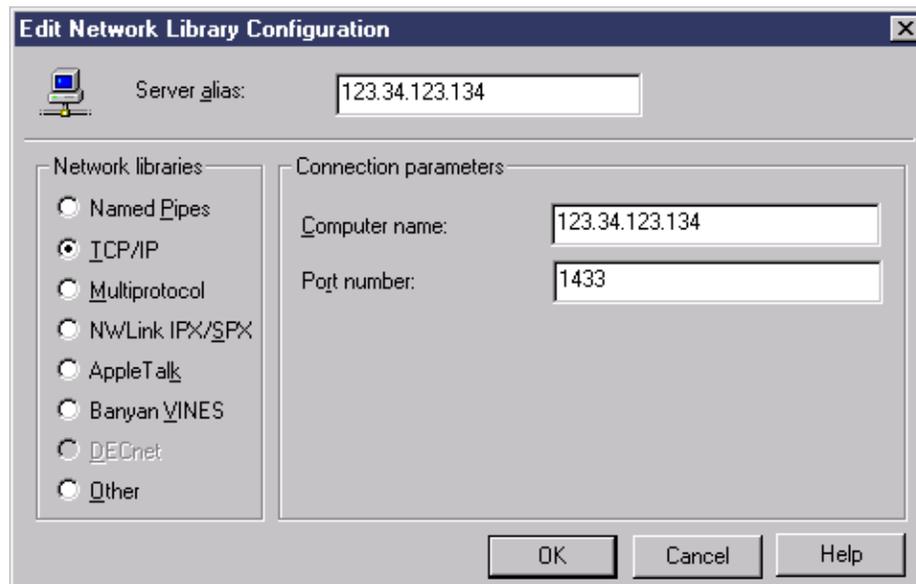
- Click **Finish** to open the **Create a New Data Source to SQL Server** setup wizard.



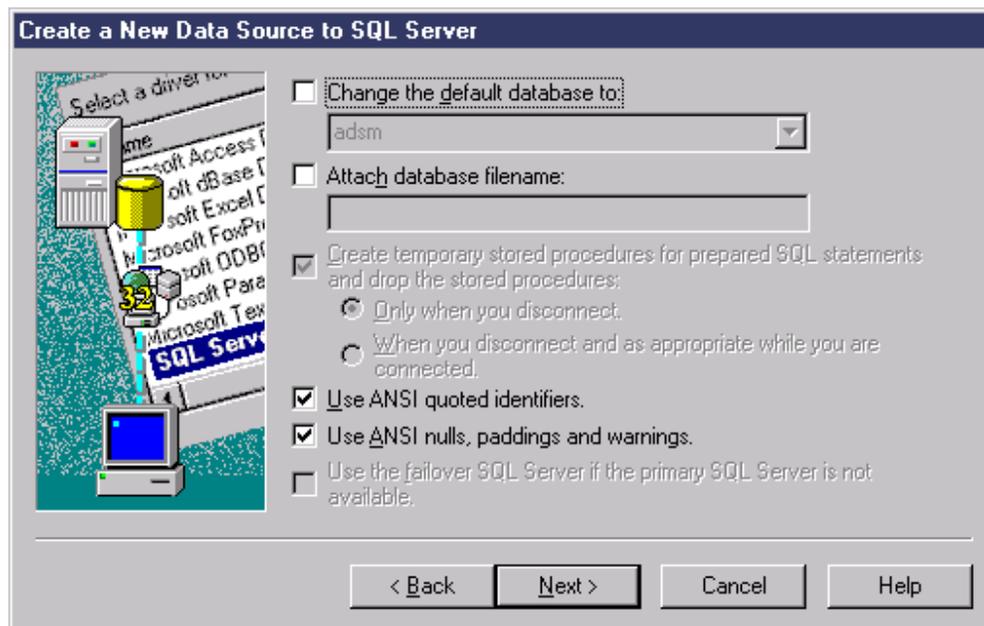
- Enter a symbolic name for the data source and any descriptive text, and specify the IP address or system name of the server. Click **Next**.



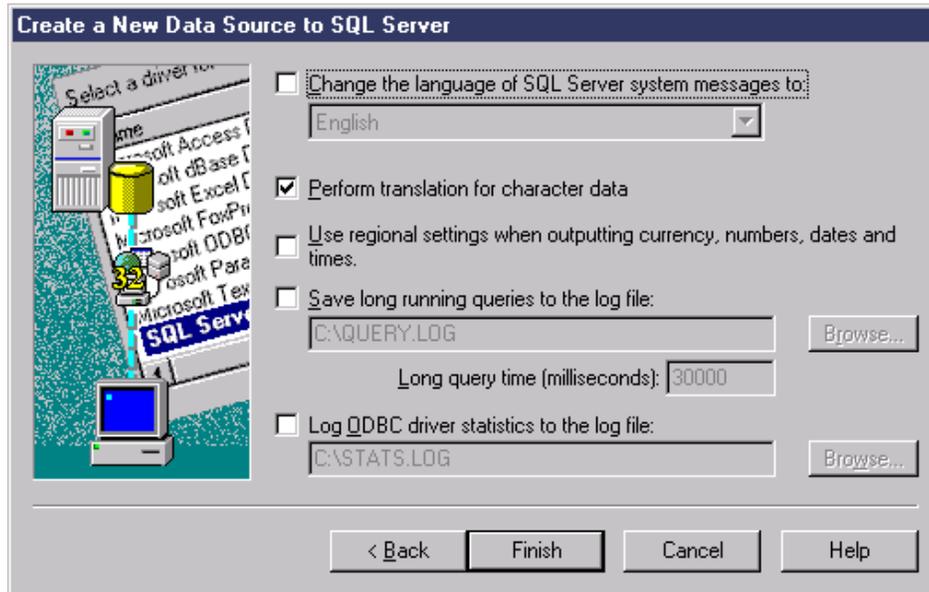
4. Select the second radio button to use SQL Server login authentication. Enter a Login ID and Password for SQL Server authentication. Click **Client Configuration** to open the **Edit Network Library Configuration** dialog box.



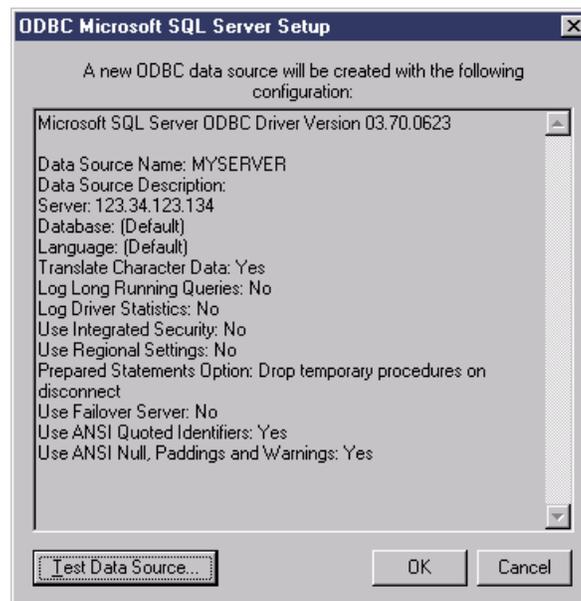
5. Change the Network libraries communication protocol or connection parameters as required by your system configuration and click **OK** to return to the **Create a New Data Source to SQL Server** setup wizard. Click **Next**.



6. Select any processing options you want to apply, or use the default settings. You must specify the reporting database you plan to use for Storage Management Analysis as the default database. Click **Next**.

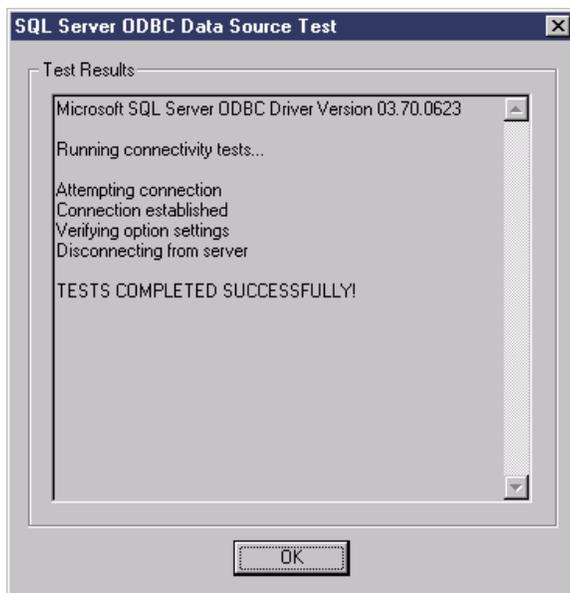


7. Select any processing options you want to apply, or use the default settings. Click **Finish** to open the **ODBC Microsoft SQL Server Setup** dialog box.



8. Check the configuration summary to make sure the settings match the ones you entered in the setup wizard. If the settings do not match, click **OK** to return to the **Data Source Administrator** and repeat the SQL ODBC Setup procedure to adjust option settings.

If the settings are correct, click **Test Data Source** to establish a connection to the specified SQL server and verify option settings.

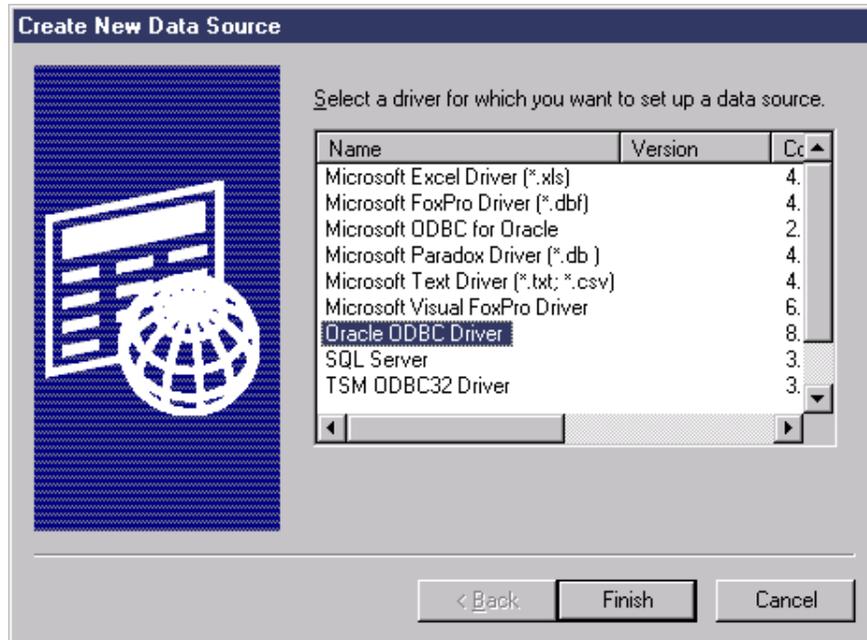


9. Click **OK** to exit the setup wizard and return to the **Data Source Administrator**. If the data source test failed, you can repeat the SQL ODBC Setup procedure to adjust option settings.

From the **Data Source Administrator**, you can set up more ODBC data source connections or exit the ODBC data source setup.

Oracle ODBC Setup

1. From the **Create New Data Source** dialog box, select **Oracle ODBC Driver**.
(See "Starting your ODBC Setup" on page 6 for instructions on opening the Create New Data Source dialog box.)



2. Click **Finish** to open the **Oracle8 ODBC Driver Setup** dialog box.

The screenshot shows the Oracle8 ODBC Driver Setup dialog box. The 'Data Source Name' field is filled with 'test_oracle'. The 'Service Name' field is filled with 'oracle_db' and the 'UserID' field is filled with 'username'. The 'Prefetch Count' is set to 10. The 'Enable Thread Safety', 'Enable LOBs', 'Enable Result Sets', 'Enable Failover', and 'Enable Query Timeout' checkboxes are all checked. The 'Retry Count' is set to 10 and the 'Delay' is set to 10. The 'Option' field is set to 0. The 'Library' field is empty. The 'OK', 'Cancel', and 'Help' buttons are visible on the right side of the dialog.

3. Enter a symbolic Data Source Name and any descriptive text. Enter the Service Name and user ID specified when the Oracle client was configured. Select any processing options you want to apply, or use the default settings.

Click **OK** to exit the setup wizard and return to the Data Source Administrator. If the new data source does not appear in the list on the **System Data Sources** page, a connection could not be established to the data source. You can repeat the Oracle ODBC Setup procedure to adjust option settings.

From the **Data Source Administrator**, you can set up more ODBC data source connections or exit the ODBC data source setup.

Configuring the Decision Support Loader

You need to configure the Decision Support Loader to extract data from at least one TSM server and to write data to one RDBMS server. Decision Support Loader configuration settings include the names, administrative logon IDs and passwords for each of these servers, as well as database table information and parameters for data retrieval and database maintenance. The default file used to store these configuration settings is named *TSMDSL.ini*, but you can specify any file with an *.ini* extension.

There are two ways to approach Decision Support Loader configuration:

1. You can open the Decision Support Loader and use the setup options provided by the product interface. You can save these settings in the *TSMDSL.ini* file, or specify another *.ini* file.
2. You can edit the *TSMDSL.ini* file directly, or create an *.ini* file from scratch.

See "Configuring the Decision Support Loader Using a Configuration File" on page 29 for information about configuring the Decision Support Loader by working directly with an *.ini* file.

Note: If you are unfamiliar with the Storage Management Analysis product, it is highly recommended that you configure using the setup options provided by the Decision Support Loader interface.

Configuring Using Interface Setup Options

After you have set up your ODBC data sources, you can open the Decision Support Loader program. (See "Opening the Decision Support Loader" on page 4.)

Use the following setup options to perform the initial configuration:

- **Server List**
- **Table List**
- **RDBMS**
- **Postprocessing**

When you have finished configuring the Decision Support Loader, you can do the following:

- Click **Save** to save your configuration settings in *TSMDSL.ini* or any other *.ini* file
- Click **Load** to specify a particular configuration file for a Decision Support Loader run

Note: If you schedule the Decision Support Loader to run unattended, *TSMDSL.ini* will be used as the default configuration file.

- Click **Go** to manually run the Decision Support Loader (See "Running the Decision Support Loader" on page 30 for more information.)
- Click **Exit** to close the Decision Support Loader. You cannot exit while the Decision Support Loader is running.

Server List

Use the **Server List** setup option to define TSM servers from which the Decision Support Loader will extract data to populate the RDBMS reporting database. The Decision Support Loader will extract and process data from one TSM server at a time, in the order in which they appear in the server list. To concurrently load data from multiple TSM servers, see "Installing and Opening the Decision Support Loader" on page 3.

Warning: If you define enough TSM servers to require a Decision Support Loader processing time of over 24 hours and you schedule the Decision Support Loader to run automatically, scheduling conflicts can occur.

To modify the server list, you can do the following:

- To add a TSM server to the list, select its Data Source Name from the **DSN** dropdown list, enter its User ID (UID) and Password, and then click **Add**.

Note: Only servers you have defined as ODBC data sources will appear in the **DSN** dropdown list. See "Setting up ODBC Data Source Connections" on page 5 for more information.

- To remove a server from the list, double-click it, or select it and click **Remove**.
- To remove all listed servers, click **Remove All**.

Table List

You can use the **Table List** setup option to specify the TSM database tables from which the Decision Support Loader will extract data. The Decision Support Loader automatically excludes any tables that are not used by a particular type of RDBMS database, so you do not need to manually adjust the **Table List** to match a specific database.

Warning: If you are unfamiliar with the Storage Management Analysis product, we recommend that you do not make any changes to the default table list. Changing the table list can affect the quality of the reports produced by Storage Management Analysis.

The **Table List** setup option consists of two panes:

- **Tables to load:**

This pane lists the tables from which the Decision Support Loader will extract data.

- **Tables to add:**

This pane lists any tables you remove from the **Tables to load** list.

To modify the table list, you can do the following:

- Select a table from the **Tables to load** list and click **<- Remove** to remove that table from the **Tables to load** list and add it to **Tables to add** list.

- Select a table from the **Tables** to add list and click **Add** -> to add that table to the **Tables to load** list.
- Double-click on any table name to either remove or add that table.
- Click **Apply** to apply new changes.
- Click **OK** to apply new changes and exit the **Update Table List** dialog box.
- Click **Cancel** to exit the **Update Table List** dialog box without applying any new changes.

RDBMS

Use the **RDBMS setup** option to define a reporting database server. The Decision Support Loader will write data extracted from TSM servers to the RDBMS server specified in this option. To define an RDBMS server, do the following:

1. Select the server name from the list of Data Source Names (DSNs) available from the **DSN** dropdown list.
Note: Only RDBMS servers you have defined as ODBC data sources will appear in the **DSN** dropdown list. See "Setting up ODBC Data Source Connections" on page 5 for more information.
2. Enter the User ID (UID) and Password for the selected server.
3. Enter a Qualifier, if one is required to access the selected server.
4. Click **Advanced** to open the **Advanced Setup Options** dialog box, and select the appropriate **RDBMS server type** from the dropdown list. Click **OK** to return to the **Data Source Setup** dialog box. (See "Modifying RDBMS Advanced Settings" on page 26 for more information about **Advanced** settings.)
5. Click **Apply** to apply new changes.

Post Processing

You can use the **Post Processing** setup option to configure the Decision Support Loader to populate up to five additional tables in the RDBMS database each time the program runs. These tables are used to improve the performance of Storage Management Analysis by pre-calculating required data. Four of these tables (DB, FILESPACES, LOG, and STGPOOLS) store data that can be used to forecast future TSM system health and performance based on historical trends. The fifth table (SUMMARYHOUR) is used to store summarized processing data from the TSM database SUMMARY table.

Note: The current Storage Management Analysis product release only supports SUMMARYHOUR post processing. Forecasting is not currently supported. We recommend that you use the default **Post Processing** setup options.

If the TSM database SUMMARY table contains null start- or end-time values and has a byte value of zero, the SUMMARYHOUR table will not be populated.

Advanced Configuration Tasks

This section describes the following advanced configuration tasks:

- Modifying RDBMS Advanced Settings on page 26
- Configuring the Decision Support Loader Using a Configuration File on page 29

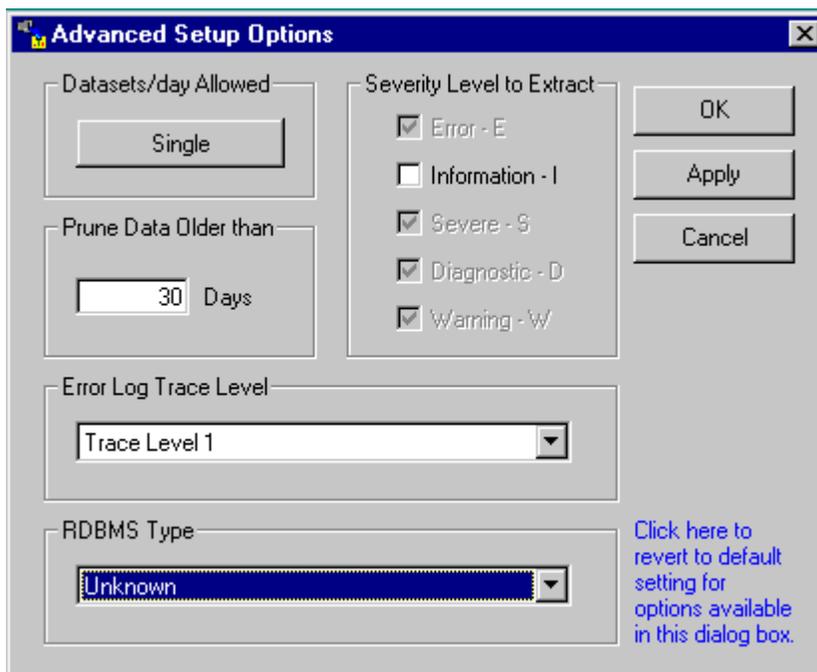
These tasks require some familiarity with the Decision Support Loader and the Storage Management Analysis product.

Modifying RDBMS Advanced Settings

To open the advanced settings, click **Advanced** in the **RDBMS** setup dialog box. The You can use the Advanced settings to modify the following reporting database parameters: Advanced Setup Options dialog box opens.

You can use the Advanced settings to modify the following reporting database parameters:

Note: The default RDBMS advanced settings are designed to maximize the performance of your reporting database. If you change the settings and want to return to the default settings, click the blue text in the lower right corner of the dialog box.



Datasets/day Allowed

Use this setting to specify the number of datasets allowed per day:

- **Single:**

The Decision Support Loader resolves only the current date for `EXTRACT_DATE` columns in your database. If you run the Decision Support Loader against the same TSM server database more than once a day, reporting database tables listed in the **Table List** setup option for that server database will be overwritten with new data.

This setting tends to produce a smaller reporting database, since only one data set per day is maintained for each TSM server database.

- **Multiple:**

The Decision Support Loader resolves both the current date and time for `EXTRACT_DATE` columns in your database. If you run the Decision Support Loader against the same TSM server database more than once a day, new reporting database tables will be created each time.

Note: This setting will not affect `EVENTS` and `SUMMARY` tables.

Changing the data sets allowed per day will only affect tables listed in the **Table List** setup option and any tables dependent on them. Dependent tables include those that are populated with data post-processed from other listed tables.

Prune Data Older Than

Use this setting to specify the length of time data will be retained in a reporting database. When the Decision Support Loader is run after the number of days specified in this setting, expired data from each TSM server in the **Server List** setup option will automatically be deleted from its associated reporting database table.

The Decision Support Loader is set to prune approximately one thousand records at a time. You can change this default setting by modifying the number of records specified in the following line in the `TSMDSL.ini` configuration file:

```
ApproxRecordsToPrunePerBatch: =1000
```

Note: If you have a large number of records to prune, specifying a small number of records in this line can slow Decision Support Loader processing time.

The number of records that your system can process depends on the size of the transaction log defined during database configuration. See your database administrator for information about the size of your transaction log.

Error Log Trace Level

Use this setting to specify the level of detail you want recorded in the log file generated by the Decision Support Loader. Each time you run the Decision Support Loader, a log file is generated as a dynamic HTML file named `tsmlog.htm`. `Tsmlog.htm` is located in the Decision Support Loader installation directory.

The following **Trace Level** options are available:

- **Trace Level 1** provides minimal log file information. Only error message text are recorded.
- **Trace Level 2** provides additional log file information. Error message text and some informational messages are recorded.
- **Trace Level 3** provides the most detailed log file information. You should only select this option if you are trying to debug a system, since it can generate a large log file, depending on the amount of data being extracted from TSM servers.

Severity Levels to Extract

Use this setting to specify the level of error message detail you want recorded in the CLIENTERRORS and SERVERERRORS reporting database tables. The levels are:

- Error (E)
- Information (I)
- Severe (S)
- Diagnostic (D)
- Warning (W)

The Error, Severe, Diagnostic and Warning levels are selected by default. You can deselect any of these levels by clicking on the checkbox.

You can also select Information level detail. However, we recommend that you do not record Information level detail on a regular basis, since it includes long text messages that can slow down Decision Support Loader processing.

RDBMS Type

Use this setting to specify the type of RDBMS database used for a Decision Support Loader run.

Note: This setting must be specified during Decision Support Loader configuration. See "RDBMS Type" on page 28 for more information.

Configuring the Decision Support Loader Using a Configuration File

Configuration information for the Decision Support Loader is stored in a file named *TSMDSL.ini*, which is located in the Decision Support Loader installation directory. You can configure the Decision Support Loader by directly editing this text file, or by creating another text file and saving it with an *.ini* extension.

Note: To avoid configuration errors, we recommend that you configure the Decision Support Loader using the setup options provided by the interface. See "Configuring Using Interface Setup Options" on page 23 for more information.

The following is a sample Decision Support Loader configuration file that you can use as a template to create a custom configuration file:

```
.[SERVER]
TotalNoServers:=1
Server:=DSN=test;UID=TDS;PWD=tds

[TABLE LIST]
TotalNoTables:=7
TableArray:="ADMINS", "DBVOLUMES", "DEVCLASSES", "FILESPPACES", "NODES", "STATU
S", "SUMMARY"

[DATA SOURCE]
DSN:=REPDB
UID:=tester
Password:=test
Qualifier:=

[ADVANCED SETUP OPTIONS]
Severity_E:=True
Severity_I:=False
Severity_D:=True
Severity_S:=True
Severity_W:=True
MultipleDatasetsPerDay:=False
PruneDataBeyondDays:=30
ApproxRecordsToPrunePerBatch:=1000
DatabaseType:=Unknown
TraceLevel:=1

[POST PROCESSING SETUP OPTIONS]
GenerateSUMMARYHOURTableData:=True
```

```
ActivateForecasting:=False
ForecastTable_DB:=True
ForecastTable_FILESPACES:=False
ForecastTable_LOG:=False
ForecastTable_STGPOOLS:=False
ForecastNumberOfDays:=15
```

Running the Decision Support Loader

You can use the following methods to run the Decision Support Loader:

- Open the Decision Support Loader, click **Cancel** to stop the autorun timer, and click the **Go** button on the Decision Support Loader interface
- Open the Decision Support Loader and let the autorun timer run to zero (See "Opening the Decision Support Loader" on page 4 for more information.)
- Schedule the Decision Support Loader to run automatically

The first time you run the Decision Support Loader for an RDBMS database, the Decision Support Loader will collect TSM data recorded since 12:00 a.m. the previous day. After that, each time you run the Decision Support Loader for an RDBMS database, it will collect data recorded since the last Decision Support Loader run for that database. We recommend that you run the Decision Support Loader daily, to minimize processing time.

When you run the Decision Support Loader from the product interface, processing results are displayed by the interface. Each Decision Support Loader run also generates a dynamic HTML log file named *tsmlog.htm*. This file is located in the Decision Support Loader installation directory, and can be viewed using any web browser. (See "Error Log Trace Level" on page 27 for information about customizing the log file.)

Note: If you run the Decision Support Loader and get no results, make sure the specified TSM server is running. The Decision Support Loader cannot process data if the TSM server is not running, and will not return a specific error message in this case.

Since the Decision Support Loader is a resource-intensive tool that may slow down some network activities, we recommend that you run it during off-peak times.

Warning: After you start a Decision Support Loader processing run, do not attempt to end the task before processing has completed. Stopping the process can compromise the integrity of data that has been written to the RDBMS database. After the Decision Support Loader finishes collecting data from a TSM server in the **Server List** setup option, you can click **Exit** to stop the processing of any remaining servers in the list.

Scheduling a Decision Support Loader Run

You can use the following methods to schedule a Decision Support Loader run:

- Windows NT **At** command:
See Windows NT Help for information about using the Windows NT **At** command.
For a list of command parameters, open a DOS prompt and type:

```
help at
```

- Cognos Scheduler:
To schedule a Decision Support Loader run using the Cognos Scheduler, do the following:

1. Select **Programs > Cognos** from the Windows NT Start Menu, and then click **Scheduler** to start the Cognos Scheduler.
2. Select **Insert > Recurring Task** to open the **Insert Task** dialog box.
3. Click the **Identification** tab, and then type the following command string in the **File Name** box:

```
"<directory path>\tsmdsl.exe"
```

where <directory path> is the installation directory path for the Decision Support Loader.

Enclose the directory path and tsmdsl.exe in quotation marks as shown in the following example:

```
"c:\Program Files\Tivoli\TSM\decision\tsmdsl.exe"
```

4. Click the **Timetable** tab, and then specify the frequency, run time, and duration.
5. Minimize the Cognos Scheduler.

The Cognos Scheduler must be running for the Decision Support Loader to run at the scheduled time. See the Cognos PowerPlay documentation set for more information about using the Cognos scheduler.

Note: When you schedule the Decision Support Loader to run unattended, *TSMDSL.ini* is used as the default configuration file.

Troubleshooting

See the Tivoli Decision Support for Storage Management Analysis Release Notes for troubleshooting tips, including information about ensuring Year 2000 compliance.

Contacting Customer Support

If you encounter difficulties with any Tivoli products, access the Tivoli Customer Support home page at <http://www.support.tivoli.com>. After you link to and submit the customer registration form, you can access many customer support services on the World Wide Web.

Use the following phone numbers to contact customer support at the Tivoli Customer Call Center in the United States:

- Tivoli: 1-800-848-TIVOLI8
- IBM: 1-800-237-5511 (after reaching this number, press or say 8 to connect to Tivoli Customer Call Center)

We at Tivoli are very interested in hearing from you about your experience with Tivoli products, documentation, and services. We welcome your suggestions for improvements. If you have comments or suggestions about this documentation, please send e-mail to pubs@tivoli.com.