

To log in to a SQL Server

1. In the Server box, select or type the name of a server.
The Server box contains a list of the last 5 servers logged in to. To get a list of servers on the network, choose the List Servers button.
2. In the Login ID box, type your login identification.
If you selected one of the servers listed in the Server box, the last login ID you used to log in to that server is automatically supplied.
3. In the Password box, type your password.
4. To start the SQL Server before connecting, select the Start Server before Connect check box.
5. Choose the Connect button.

To disconnect from a SQL Server

1. In the Server box, select the server.
2. Choose the Disconnect button.

To set SQL Administrator preferences

1. Set the appropriate query preferences.

- To view queries sent from SQL Administrator to SQL Server from a dialog box, select the Show Generated T-SQL check box.

This option allows you to view the queries generated by SQL Administrator based on your selections in a dialog box.

- To specify the default extension for saved queries, type the file extension in the File Extension box. The default is *.sql.

- To specify the default directory in which to save queries, select the directory in the File Directory box.

- To be prompted before exiting SQL Administrator when you have active connections, select the Prompt before Exiting check box.

2. Choose the OK button.

To set all options to their default values

- Choose the Defaults button.

To set SQL Administrator configuration information

1. Set the appropriate configuration preferences.

- To enable dialog boxes to accept values greater than 12 hours and hide the AM and PM buttons, select the 24 Hr Time Format box.
- In the Active Sessions box, type the interval for updating information in the Sys Options/Active Resources window.
- In the Statistics Refresh box, type the interval for updating SQL Server statistics information.
- In the Login box, type the amount of time that should elapse before the server terminates a login attempt.
- In the Query box, type the amount of time that should elapse while the server retrieves query results.
- In the System Functions box, type the time the server should wait for major functions to complete.
- Select the ANSI->OEM box to activate the automatic ANSI to OEM conversion.

This activates character conversion to correct problems with extended characters displaying as graphics instead of letters with diacritical marks on Windows NT-based computers if SQL Server is not using the ANSI (ISO) character set. You must disconnect from SQL Server and reconnect for the selection to take effect. Be aware that this option affects all Windows- and Windows NT-based applications using the DB-Library API, not just SQL Security Manager (unless the DB-Library application explicitly overrides this setting).

2. Choose the OK button.

To set all options to their default values

- Choose the Defaults button.

To create a device

1. In the Logical Name box, type the name for the device.
2. In the Physical Name box, type the path where you want the device to be located.
3. Under Type:

<u>Select</u>	<u>To</u>
Database	Specify that the device holds databases or transaction logs.
Disk Dump	Specify that databases are backed up to the hard disk.
Floppy Dump A	Specify that databases are backed up to drive A.
Floppy Dump B	Specify that databases are backed up to drive B.
Tape Dump	Specify that databases are backed up to a tape device. If you are using a Windows NT-based server, you can create more than one tape dump device.

4. If you select Database:
 - a. In the Size(MB) box, type the size of the device, in megabytes.
 - b. In the Device # box, the device number, a unique identifier for the device, is automatically filled in.
 - c. Choose the OK button.
5. If you select Disk Dump, Floppy Dump A or Floppy Dump B:
 - Choose the OK button.
6. If you select Tape Dump:
 - a. For an OS/2-based server, select No Skip to label the tape, or Skip to not label the tape.
 - b. Choose the OK button.

To mirror a device

1. In the Physical Name box, type the path where you want the mirror device to be located. You should mirror the device on a separate disk.

The path to the MASTER.DAT file, followed by the first 8 characters of the mirror device's name, automatically appears in the Physical Name box. To place the mirror device somewhere different, type a new path. (For example, E:\SQL\DEVICE1.MIR.)

2. Under Writes:

<u>Select</u>	<u>To</u>
Serial	Specify that writes to the original disk must finish before writes to the mirror disk begin.
No Serial	Specify that writes can occur either simultaneously to the original disk and to the mirror disk, or serially to the original disk before the mirror disk. (With SQL Server for Windows NT, mirroring is always serial.)

3. Choose the OK button.

To unmirror a device

1. Under Device, determine whether the existing device or the mirror device is active after remirroring:

<u>Select</u>	<u>To</u>
Mirror	Unmirror the mirror device.
Database	Unmirror the mirror device and replace the database device with the mirrored device.

2. Under Mode:

<u>Select</u>	<u>To</u>
Retain	Enable you to remirror the device at a later date.
Remove	Remove the mirror device permanently.

3. Choose the OK button.

To add a segment

1. In the Segment Name box, type a name for the segment.
2. In the Device Name box, select a database device to place the segment on.
3. Choose the OK button.

To extend a segment

1. In the Device Name box, select a device to extend the segment to.
2. Choose the OK button.

To drop a segment

1. In the Device Name box, select the device to drop the segment from.
2. Choose the OK button.

To create a database

1. In the Database Name box, type a name for the database.
2. In the Data Device box, select a device to put the database on.
The Data Device box displays a list of devices on the server with at least 2 MB of free storage space.
3. In the Data Size box, type the amount of space, in megabytes, to allocate on the device for the database. The default is the amount of space available on the device.
4. In the Log Device box, select a device to put the log on.
5. In the Log Size box, type the amount of space, in megabytes, to allocate on the device for the log.
The default is the amount of space available on the device.
As a guideline for the transaction log, allocate from 10 to 25 percent of the space you allocate to the database.
6. Choose the OK button.

To expand a database or transaction log

1. In the Data Device box, select a device to expand the database on.
If you are expanding the transaction log, in the Log Device box, select the device to expand the log on.
2. In the Data Size box, type the size, in megabytes, to allocate on the device for the database. The default is the amount of space available on the device.
If you are expanding the transaction log, in the Log Size box, type the size to allocate on the device for the log, in megabytes. The default is the amount of space available on the selected device.
3. Choose the OK button.

To set database options

1. In the Option box, select the option to set.
Each option that you select is described in the Description box.
2. Under Value, select True to set the option for the database, or select False to turn the option off.
3. Repeat steps 1 and 2 for each option to change.
4. Choose the OK button.

To add a user to a database

1. In the Login ID box, select user's the login ID.
2. In the User Name box, type a username for the user in this database.
If you are adding the user through an alias, leave this field blank.
3. To add the user as an alias, in the Alias box, select a username for the alias.
4. To add the user to a group, in the Group box, select the name of the group.
If you are adding the user through an alias, this field is unavailable because the user automatically belongs to the group that the alias belongs to.
5. Choose the OK button.

To add a group

1. In the Group Name box, type a name for the group.
2. Choose the OK button.

To add a user to a group

1. In the Users Not in Group box, select a user to add.
2. Choose the Add button.
The username moves to the Users in Group box.
3. Repeat steps 1 and 2 to add each user to the group.
4. Choose the OK button.

To remove a user from a group

1. In the Users in Group box, select the user to remove from the group.
2. Choose the Remove button.
Repeat steps 1 and 2 for each user to remove from the group.
3. Choose the OK button.

Permissions

This dialog box allows you to:

- Assign and remove a user or group's statement permissions.
- View a user or group's permissions.
- Show users or groups with specific permissions.

To assign a user or group's permissions

1. Under Permissions, select one or more of the following:

Select	To allow a user or group
Create Default	To create a default value for a column.
Create Procedure	To create a <u>stored procedure</u> .
Create Rule	To create a <u>rule</u> for a column.
Create Table	To create a table.
Create Database	To create a database.
Create View	To create a <u>view</u> .
Dump Database	To make a backup copy of the database and log.
Dump Transaction	To make a backup copy of the log or to remove the inactive part of the log.
All	All of the permissions.
None	None of the permissions.

2. In the Other Users box, select the user or group to assign the selected permissions to.
3. Choose the Add button.
Repeat steps 2 and 3 for each user or group to assign the selected permissions to.
If you add a user or group by mistake, select the user or group in the Users With Permissions box and then choose the Remove button.
4. Choose the Apply button.
Repeat steps 1 through 4 for each set of permissions.
5. Choose the Done button.

To view a user or group's permissions

1. In the Users With Permissions box or the Other Users box, select the user or group.
2. Choose the User Zoom button.
The user or group's permissions are displayed.
3. Choose the Done button.

To show users or groups who have a specific set of permissions

1. Under Permissions, select the permissions.
2. Choose the Show button.
All users and groups who have the selected permissions are displayed in the Users With Permissions box.
3. Choose the Done button.

To remove a user or group's permissions

1. In the Other Users box, select the user or group.
2. Choose the Add button.
The user or group's permissions appear in the Permissions box.
3. In the Users With Permissions box, select the user or group.
4. Choose the User Zoom button.
5. Under Permissions, clear the permissions that you no longer want the user or group to have. To remove all permissions, select None.

6. Choose the Apply button.
7. Choose the Done button.

To back up or restore a database or a transaction log

1. In the Dump Device box, select the device on which to back up the database or log, or to restore the database or log from.
2. Under Action, select the type of backup or the type of restore:

Select	To
Load Database	Restore the selected database.
Dump Database	Back up the selected database.
Load Tran	Restore the selected database's log.
Dump Tran	Back up the selected database's log. You can use this option only if the log is on a separate device.
Dump Tran/Truncate	Remove the inactive part of the log without making a backup copy.
Dump Tran/No Log	Remove the inactive part of the log without making a backup, and not recording the transaction.
Dump Tran/No Truncate	Back up the entire log even if the database is inaccessible. You can use this option only if the log is on a separate device.

3. If you are restoring from a tape device, choose the Read Tape button to see a list of the backups for the current database. Then, from the File# Date/Time Dumped box, select the backup to restore. (This feature is available only with SQL Server for Windows NT.)
If you are backing up to a tape device and want to add the backup to the current backups on the tape, under Tape Control, select the Append Backup check box. To overwrite the information currently on the tape, clear the Append Backup check box. (This feature is available only with Microsoft SQL Server for Windows NT.) To view information about the tape's contents, choose the Read Tape button. The Continue on SQL Monitor timeout errors box is selected so that timeout errors will be ignored while reading or writing to a tape device. This is used for tape operations that take a long time to execute.
4. Choose the OK button.

To schedule a backup

1. In the Database box, select the database to schedule a backup for.
2. In the Dump Database To box, select the dump device to back up the database on.
If you are backing up to tape and want to add the database backup to the backups on the current tape, select the Append check box. (This feature is available only with SQL Server for Windows NT.)
3. In the Dump Log To Box, select the dump device to back up the log on.
If you are backing up to tape and want to add the log backup to the backups on the current tape, select the Append check box. (This feature is available only with SQL Server for Windows NT.)
4. In the Frequency box, select how often you want the backups to occur.
5. In the Day box, select the day of the week that you want the backup to occur. The field is dimmed if you chose Daily in the Frequency box.
6. In the Start Time box, type a time to begin the backup.
7. Select the AM or PM button.
If you selected the 24 Hr Time Format box in the SQL Administrator Configuration dialog box, the AM and PM option buttons do not appear. Instead, you must enter time in 24 hour time format (for example 16:42).
8. Under Enable, select the Yes button to start the backup schedule. Select No to temporarily pause the scheduled backup. To restart the scheduled backup, select Yes again.
9. If you are scheduling a log backup, you can choose the Trunc. box to remove the inactive part of the log without making a backup copy. Or specify No Log to remove the inactive part of the log without making a backup or recording the transaction.
10. If you have configured SQL Server for Windows NT to be mail enabled, and you want SQL Monitor to send a mail message to specified recipients when the event you are scheduling takes place, in the Email box type the recipients' mail names. This list can contain up to 60 characters; if you are typing more than one name, separate the names with semicolons.
11. Choose the OK button.

To add a user login ID to a server

1. In the Login ID box, type the user's login ID.
2. In the Password box, type the user's password.
3. In the Language box, select a default language for the user.
4. In the Database box, select a default database for the user.
This is the database the user can access when he or she logs in to a SQL Server.
5. In the User Name box, type the name the user will use to access the default database.
If you leave this box blank, the username will be the same as the login ID.
6. Choose the OK button.

To change the default database for a user:

1. In the Database box, select a new default database for the user.
2. In the User Name box, type a the name the user will use to access the database.
If you leave this field blank, the username will be the same as the login ID.
3. Choose the OK button.

To change the default language for a user:

1. In the Language box, select a new default language for the user.
2. Choose the OK button.

To add a remote server

1. In the Server Name box, type the name of the remote server or select the server from the list.
2. Choose the OK button.
3. For an OS/2-based server, from the Manage menu, choose Add Remote Server again, and then type or select the local server in the Server Name box.
4. Choose the OK button.

To set the remote server option

1. In the Option box, select the Timeouts option.
The Description box provides a definition for the selected option.
2. Under Value, select True to keep the connection open continuously, or select False to cancel the connection if there is no activity after 1 minute.
3. Choose the OK button.

To add a login ID for a remote server

- To set all users' local login IDs to be their remote login IDs:
 1. In the Local Login ID box, select *All Users Keep Own ID*.
 2. Leave the Remote Login ID box blank.
 3. Choose the OK button.
- To assign one remote login ID to all users on the local server:
 1. In the Local Login ID box, select the remote login ID to assign to the users.
 2. In the Remote Login ID box, select *All Users Use Local ID*.
 3. Choose the OK button.
- To assign to a specific user a remote login ID that is different from the user's local login ID:
 1. In the Local Login ID box, select the remote login ID to assign to the user.
 2. In the Remote Login ID box, select or type the user's local login ID.
 3. Choose the OK button.

To set the remote login option

1. In the Option box, select Trusted.
The Description box describes the option.
2. Under Value, select True to specify trusted, or False to specify untrusted.
3. Choose the OK button.

To start a SQL Server

1. In the Server Name box, type the name of the server to start.
2. Choose the OK button.

To stop SQL Server

- Choose the OK button to shut down SQL Server.
Shutting down SQL Server terminates all active processes.

To configure SQL Server

1. In the Options box, select the option to configure.
Each option you select is described in the Option Description box.
2. In the New Value box, type a new value for the option.
Current Value displays the current value of the option. Config Value displays how the server is configured and how it will be set when the server is shut down and restarted. Minimum Value displays the minimum value you can use for the option. Maximum Value displays the maximum value you can use for the option.
3. Choose the OK button.

To check the database consistency

1. Under Options, select the option to check in the database:

Select	To
DBREPAIR	Drops a damaged database.
Check Memory Usage	Shows how objects are used in memory.
Check DB	Checks links, pointers, space allocation, and indexes for consistency in each database. To not check the indexes, select Do not check indexes.
ALLOW 1.1 Load	Loads a 1.x database dump into a 4.2 SQL Server.
Check Catalog	Checks system tables for consistency.
Check Text Allocations	Checks the allocation of text or image fields. If you select the Full Check box, then all allocation pages for the table are looked at. If you choose the Fast Check box, the linkage of text chains is checked and DBCC verifies the pages in the chain are allocated. If you select All Objects, all tables in the database that have text or image fields are checked.
Check Table	Checks links, pointers, space allocation, and indexes for consistency in the selected table.
Check Alloc	Checks a database to ensure that all pages are correctly allocated. If you select the Do Not Check Indexes box, the indexes in each database are not checked. If you select Continue After Errors, pages continue to be checked, even after errors are reported.

2. In the Database Name box, select the database to check.
3. If you chose the Check Table option or the Check Text Allocations option, in the Table Name box select the table to check.
4. Choose the OK button.

SQL Server Statistics

The SQL Server Statistics dialog box displays a list of the active statistics for the server.

Last Run:

Displays the time of the last server statistics reading.

Refresh Rate:

Displays how often the server statistics are read.

Elapsed Time:

Displays the time elapsed since the server statistics were read.

Engine Status:

Displays whether or not the statistics engine is started.

Statistics:

Displays the following list of items for which statistics are available:

CPU Busy

IO Busy

Idle Time

Packets Received

Packets Sent

Packet Errors

Total Read

Total Write

Total Errors

Connections

To update the statistics information

- Choose the Refresh button.

To start the statistics engine

1. Choose the Start Engine button.
 2. Type the interval that the engine uses to update the statistics history.
 3. Choose the OK button.
- If the engine is running, the Start Engine button becomes the Stop Engine button.

To stop the statistics engine

- Choose the Stop Engine button.

To view the history of system statistics

- Choose the History button.

To start the system statistics engine

1. In the Interval box, type the interval that the engine uses to update the statistics history.
2. Choose the OK button.

To set query options

1. Under Query Options:

Select	To
Abort on Arithmetic Error	Terminates a query when an overflow or divide-by-zero error occurs during a query. You cannot set both Abort on Arithmetic Error and Ignore Arithmetic Error.
Ignore Arithmetic Error	Returns NULL when an overflow or divide-by-zero error occurs during a query. You cannot set both Abort on Arithmetic Error and Ignore Arithmetic Error.
No Count Display	Turns off the message that tells you how many rows were affected by the query.
No Execute	Compiles a query but does not execute it.
Parse Query Only	Checks the syntax of each query and returns any error messages without executing the query.
Show Query Plan	Generates a text description of the processing plan for the query as the query is processed. (To generate a graphical description of the processing plan, select the Showplan button on the Query window toolbar. If both the Showplan check box and button are selected, both a text and graphic description of the processing plan are generated.)
Show Stats Time	Displays the time it took to parse and compile each statement and the time it took to execute each step of the query statement.
Show Stats I/O	Displays the number of scans, the number of logical reads, and the number of physical reads for each table referenced in the statement. (To generate a graphical description of the processing plan, select the Statistics I/O button on the Query window toolbar. If both the Statistics I/O button and check box are selected, both a text and graphical description are generated.)

2. In the Row Count box, type the number of rows the server should return before ending a query. The default (0) returns all rows.
3. In the Result Output Format box, select the type of format to display the results in. The choices are Column Aligned, Comma Separated (CSV), Tab Delimited, and Other Delimiter. If you select Other Delimiter, in the Delimiter box type the delimiter. The default is Column Aligned.

4. Select the Verbose Prints check box to display the PRINT statements output in the results window.
This option is useful if you are executing the graphical Showplan and/or Statistics I/O.
5. Clear the Print Headers check box so the column headers will not appear in the query results.
6. Choose the OK button.

To change servers

1. In the Servers box, select the server.
2. Choose the OK button.

To change a password

1. In the Old Password box, type the old password.
If you are the SA, you do not need to type the old password.
2. In the New Password box, type the new password.
For security, only asterisks (*) appear as you type.
3. In the Re-enter New Password box, type the new password again to confirm it.
4. Choose the OK button.

To connect to a server

1. In the Active Servers box, select the server.

The Active Servers box lists the servers on the network. You can refresh the list by choosing the Refresh button.

2. Choose the OK button.

To change databases

1. In the Databases box, select the database.
2. Choose the OK button.

Device

A file that databases are stored in. One database can be stored on several devices. There are two types of devices: database devices, which store databases, and dump devices, which store backups of a database.

Database

A set of related data tables and other database objects that are organized and presented to serve a specific purpose. Databases are stored on devices.

Server

A computer on a local area network that controls access to resources such as files, printers, and communication devices. When you use a SQL Server, you can use only servers that are designated as SQL Server servers.

Login ID

The unique name assigned to a user for logging in to a SQL Server. A login ID can have as many as 30 characters. The characters can be alphanumeric; however, the first character must be a letter (for example, CHRIS or TELLER8).

If you are using integrated security with Windows NT, you do not need to maintain a separate login ID for SQL Server and you do not need to provide a login ID in the Connect Server dialog box. If you are adding users to SQL Server and are using integrated security, you can use the SQL Security Manager utility to map Windows NT-based users to SQL Server login IDs.

Password

A confidential identification you supply to log in to a SQL Server. Passwords provide security against unauthorized people using a SQL Server. A password can have as many as 30 characters. The characters can be alphanumeric; however, the first character must be a letter. Because a password is confidential, it does not appear on the screen when you type it.

If you are using integrated security with Windows NT, you do not need to supply a password in the Connect Server box. If you are adding a user and are using integrated security, you should use the SQL Server Manager utility to add the user.

Path

The name of one or more directories pointing to a location on your disk, diskette, or tape device. For example, B:\ACCOUNT\REPORTS.

Transaction Log

A record of transactions that take place in a database. It is used by SQL Server during automatic recovery.

Alias

Allows a user to access a database using someone else's username. When you use an alias, you have all the permissions of the user in that database. You cannot use an alias for a database if you already have a username in that database.

Username

The name a user needs to access a database. A username can have as many as 30 characters. The characters can be alphanumeric; however, the first character must be a letter. If you don't type a username, the username is the same as the login ID.

Default Language

The language used to communicate with the server. Once the default language is set, the user is automatically logged in as using that language. Select a language from the list of available languages (for example, French, German, or English).

Default Database

The database that the user can access when first logging in to a SQL Server.

Remote Login ID

The login ID assigned to a user for accessing remote procedures on a remote server. This can be the same as the user's local login ID. A remote login ID can have as many as 30 characters. The characters can be alphanumeric; however, the first character must be a letter (for example, CHRIS or TELLER8).

Local Login ID

The login ID a user must use to log in to a local server. A login ID can have as many as 30 characters. The characters can be alphanumeric; however, the first character must be a letter (for example, CHRIS or TELLER8).

Threads

An OS/2 mechanism that allows one or more paths of execution through the same instance of application. A thread is a path of execution through a program. SQL Server for OS/2 uses an OS/2 thread to manage each device, and each remote site takes up two threads. For Windows NT, SQL Server takes advantage of the native thread services of Windows NT.

Stored Procedure

A named collection of Transact-SQL statements and optional control-of-flow statements. SQL Server-supplied stored procedures are called system procedures.

Rule

Specifies what data can be entered in a column. Each time a user enters a value (with an INSERT or UPDATE statement), SQL Server checks the value against any rules that are created for the column.

View

An alternative way of looking at data in one or more tables.

Segment Name

A subset of a device that is available to a particular database to store objects on. A segment name can have as many as 30 characters. The characters can be alphanumeric; however, the first character must be a letter (for example, FASTSEG).

Active Sessions

Specifies the interval for refreshing information in the Sys Options/Active Resources box. The default is 30 seconds. Type the time in minutes and seconds. For example, 01:30 is 1 minute and 30 seconds.

Statistics Refresh

Specifies the interval for refreshing SQL server statistics information. The default is 30 seconds. Type the time in minutes and seconds. For example, 01:30 is 1 minute and 30 seconds.

Login

The time that the server waits before terminating a login attempt. The default is 1 minute. Type the time in minutes and seconds. For example, 01:30 is 1 minute and 30 seconds.

Query

Specifies the time the server waits to get query results. The default is 20 seconds. Type the time in minutes and seconds. For example, 01:30 is 1 minute and 30 seconds.

System Functions

Specifies the time it will take for major functions to complete. The default is 5 minutes. Type the time in minutes and seconds. For example, 01:30 is 1 minute and 30 seconds.

Logical Name

In the Logical Name box, type the name for the device. The name must correspond to the rules for identifiers and can have as many as 30 characters (for example, ACCOUNTING or LIBRARY).

Physical Name

In the Physical Name box, type the path where you want the device to be located. The default is the path of the MASTER.DAT file followed by the first eight characters of the device's logical name. For example, if ACCOUNTING is the logical name, and the MASTER.DAT file is located in SQL\DATA, then the physical name is SQL\DATA\ACCOUNTI.DAT.

Size

In the Size box, type the size you want to allocate for the database device. If you are planning to create a database on the device. Size must be at least 2 MB.

Device #

SQL Administrator automatically selects an available device number for you. You can type a different number, if necessary.

Mirror Name

In the Mirror Name box, type a name for the mirror device. The name must correspond to the rules for identifiers and can have as many as 30 characters (for example, MACCOUNT or MLIBRARY).

Physical Name

In the Physical Name box, type the path where you want the mirrored device to be located. The default is the path of the MASTER.MIR file followed by the first eight characters of the mirror device's logical name. For example, if MACCOUNT is the name of the mirror device, and the MASTER.MIR file is located in SQL\DATA, then the physical name is SQL\DATA\MACCOUNT.MIR.

Local Server

The local server is the server you are explicitly connected to. If remote servers are set up for the local server, users can access remote servers from their local server.

Name

In the Name box, type the name for the segment. The name must correspond to the rules for identifiers and can have as many as 30 characters (for example, FASTSEG).

Database Name

In the Database Name box, type the name for the database. The name must correspond to the rules for identifiers and can have as many as 30 characters (for example, SALES or PAYROLL91).

Data Device

In the Data Device box, select a device to put the database on. The Data Device box lists the available database devices. The device you select must have at least 2 MB available in order to create a database on it.

Log Device

In the Log Device box, select a device to store the log on. To simplify recovery, you should store the log on a different device from the one you store the database on.

Default Language

In the Default Language box, select a default language for the user. This is the language used to communicate with the server. The Default Language box lists the languages available for SQL Server (for example, French, German, or English). Once the default language is set, the user is automatically logged in as using that language.

CPU Busy

The time, in milliseconds, that the CPU is spending on SQL Server work.

IO Busy

The time, in milliseconds, that SQL Server spent doing input and output operations.

Idle Time

The time, in milliseconds, that SQL Server has been idle.

Packets Received

The number of input packets that SQL Server has read.

Packets Sent

The number of output packets that SQL Server has written.

Packet Errors

The number of errors that SQL Server detected while reading and writing packets.

Total Read

The number of disk reads by SQL Server.

Total Write

The number of disk writes by SQL Server.

Total Errors

The number of errors that SQL Server detected while reading and writing.

Connections

The number of logins or attempted logins to a SQL Server.

Tape Dump

For OS/2:

The Sytos Plus tape backup utility must be installed on the server. The tape device must also be physically attached to the SQL Server you are backing up. For more information, see the Sytron Sytos Plus manuals.

When you create a tape device, the physical name is the path to the dynamic-link library (DLL) file. After the tape drive is connected to the SQL Server, you can determine the path of the DLL that is used to access the tape drive by scanning the CONFIG.SYS file for the statement that loads the Sytos Plus device driver. This statement in the Sytos Plus Drivers section that is not preceded by a REM statement. For more information, see the "Microsoft SQL Server System Administrator's Guide."

For Windows NT:

SQL Server for Windows NT users any tape device supported by Windows NT. If you are creating a tape dump device, you must first install the tape device using Windows NT. The tape device must be physically attached to the SQL Server you are backing up.

Note that the physical name for a tape device is the name assigned to the tape device by Windows NT.

SQL Administrator Keyboard Help

Choose from the following list to get information about the keys used in SQL Administrator:

[SQL Administrator Keys](#)

[Cursor Movement Keys](#)

[Dialog Box Keys](#)

[Menu Keys](#)

[Editing Keys](#)

[Help Key](#)

[System Keys](#)

[Text Selection Keys](#)

[Windows Keys](#)

Editing Keys

Use the following keys to edit text:

Key(s)	Function
BACKSPACE	Deletes the character to the left of the insertion point, or deletes the selected text.
DEL	Deletes the character to the right of the insertion point, or deletes the selected text.
SHIFT+DEL	Deletes the selected text and places it on the Clipboard.
SHIFT+INS	Inserts text from the Clipboard to the active window.
CTRL+INS	Makes a copy of the selected text and places it on the Clipboard.
ALT+BACKSPAC E	Undoes the previous editing operation.

Help Key

Use the following key to get Help information:

Key	Function
F1	Within a dialog box, pressing F1 displays the dialog box Help information. If the Help window is already open, pressing F1 displays information about how to use Help.

System Keys

The following keys can be used from any window:

Key(s)	Function
CTRL+ESC	Switches to the Task List.
ALT+ESC	Switches to the next application or minimized icon, including full-screen programs.
ALT+TAB	Cycles through running applications.
PRTSC	Copies an image of the entire screen contents onto the Clipboard.
ALT+PRTSC	Copies an image of the SQL Administrator window onto the Clipboard.
ALT+F4	Closes the application.
CTRL+F4	Closes the active window.
F1	Displays Help information in SQL Administrator dialog boxes.

Dialog Box Keys

Use the following keys within dialog boxes:

Key(s)	Function
TAB	Moves from option to option (left to right and top to bottom).
SHIFT+TAB	Moves from option to option in reverse order.
ALT+letter	Moves to the option or group whose underlined letter matches the one you press.
Arrow keys	Moves the selection cursor from option to option within a group of options. Or moves the cursor left, right, up, or down within a list or text box.
HOME	Moves to the first item or character in a list or text box.
END	Moves to the last item or character in a list or text box.
PAGE UP or PAGE DOWN	Scrolls up or down in a list box, one window at a time.
ALT+Up or Down arrow	Opens a drop-down list box and selects an item within a drop-down list box.
SPACEBAR	Selects or clears a check box.
SHIFT+Arrow key	Selects text in a text box.
SHIFT+HOME	Selects text from the cursor point to the first character in a text box.
SHIFT+END	Selects text from the cursor point to the last character in a text box.
ENTER	Executes a command button, or chooses the selected item in a list box and executes the command.
ESC or ALT+F4	Closes a dialog box without completing the command (same as the Cancel button).

Cursor Movement Keys

Use the following keys to move the cursor (insertion point) in text boxes and other places where you can type text:

Key(s)	Moves the insertion point
Up arrow	Up one line.
Down arrow	Down one line.
Right arrow	Right one character.
Left arrow	Left one character.
CTRL+Right arrow	Right one word.
CTRL+Left arrow	Left one word.
HOME	To the beginning of the line.
END	To the end of the line.
PAGE UP	Up one window.
PAGE DOWN	Down one window.
CTRL+HOME	To the beginning of the window or text area.
CTRL+END	To the end of the window or text area.

Text Selection Keys

Use the following keys to select text:

Key(s)	Function
SHIFT+Left or Right arrow	Selects text one character at a time to the left or right, or, if the character is already selected, cancels the selection.
SHIFT+Down or Up arrow	Selects one line of text up or down, or, if the line is already selected, cancels the selection.
SHIFT+PAGE UP	Selects text up one window, or, if the previous window is already selected, cancels the selection.
SHIFT+PAGE DOWN	Selects text down one window, or, if the next window is already selected, cancels the selection.
SHIFT+HOME	Selects text to the beginning of the line.
SHIFT+END	Selects text to the end of the line.
CTRL+SHIFT+ Left arrow	Selects the previous word.
CTRL+SHIFT+ Right arrow	Selects the next word.
CTRL+SHIFT+HOM E	Selects text to the beginning of the document.
CTRL+SHIFT+END	Selects text to the end of the document.

Menu Keys

Use the following keys to select menus and choose commands:

Key(s)	Function
ALT or F10	Selects the leftmost menu on the menu bar.
ALT+letter	Chooses the menu or menu item whose underlined letter matches the one you press.
Left or Right arrow	Moves among menus.
Up or Down arrow	Moves among menu items.
ENTER	Chooses the selected menu item.
ESC	Cancels the selected menu.

Windows Keys

Use the following keys to navigate in the Microsoft Windows or Windows NT operating systems:

Key(s)	Function
ALT+SPACEBAR	Opens the System menu for an application.
ALT+- (Hyphen)	Opens the System menu for a document window.
ALT+F4	Closes an application.
ALT+ESC	Switches to the next application or minimized icon, including full-screen programs.
ALT+TAB	Cycles through running applications.
ALT+ENTER	Switches an application for an operating system other than Windows between running in a window and running full screen.
Direction keys	Moves a window when you have chosen Move from the System menu, or changes the size of a window when you have chosen Size from the System menu.

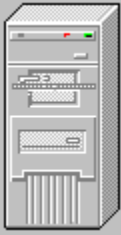
SQL Administrator Keys

The following keys are specific to SQL Administrator:

Key(s)	Function
F8	Refreshes the current window.
F3	Closes SQL Administrator.
F4	Closes the current window.
CTRL+N	Displays the Connect Server dialog box.
CTRL+V	Displays the Device Management window.
CTRL+D	Displays the Database Management window.
CTRL+O	Displays the System Logins Management window.
CTRL+R	Displays the Remote Server Management window.
CTRL+Y	Displays the Sys Options/Active Resources window.
CTRL+Q	Displays the Query window.
CTRL+U	Selects the Current Connections list box.
ALT+C	In a Management window, Alt+C displays the Properties dialog box for the selected item.
ALT+G	In the Database User/sGroups window, moves the cursor to the Current Groups list box.

The following keys are specific to the Query window in SQL Administrator:

Key(s)	Function
CTRL+E or ALT+X	Executes a query.
CTRL+Z	Clears the query window.
CTRL+C	Cancels the query.
F1	Displays Transact-SQL Help information for the selected syntax.
ALT+F1	Displays Help (sp_help) information for the selected object.
F6	Moves between the Query and result windows.
ALT+S	Activates the resizing mode for the splitter bar. Use the Up and Down Arrow keys to resize the windows and then press ENTER to set the new size.



Microsoft SQL Server Tools SQL Administrator Help

To learn how to use Help, press F1.



Getting Started



Managing Devices



Managing Databases



Managing System Logins



Managing Remote Servers and Logins



Managing System Resources



Queries

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- [Editing Query Results](#)
- [Changing Databases](#)
- [Analyzing Queries with Graphical Showplan](#)
- [Analyzing Queries with Graphical Statistics I/O](#)

Logging In to a SQL Server

Logging in identifies you to a SQL Server and allows you to use the devices and databases on that server. Before you log in, you need to know your login ID and password. You can be logged in to more than one SQL Server at a time.

To log in to a SQL Server

1. From the Microsoft SQL Administrator window, choose the Connect button.
The Connect Server dialog box appears.
2. Type or select a server name, then type a login ID and a password.
3. Choose Connect.

Related Topics

[Disconnecting from a SQL Server](#)

[Exiting from SQL Administrator](#)

Changing Server Connections

The servers you are connected to are listed in the Current Connections box. If you need to perform tasks on a server that is not listed, you must first connect to that server.

To change server connections

- In the Current Connections box, select a server.

Related Topics

[Logging In to a SQL Server](#)

Disconnecting from a SQL Server

To disconnect from a SQL Server

1. From the Microsoft SQL Administrator window, choose the Connect button.
The Connect Server dialog box appears.
2. Select the name of the server you want to disconnect from.
3. Choose Disconnect.

Related Topics

[Logging In to a SQL Server](#)

[Exiting from SQL Administrator](#)

Exiting from SQL Administrator

When you exit from SQL Administrator, all your server connections are disconnected.

To exit from SQL Administrator

- From the File menu, choose Exit.

Related Topics

[Disconnecting from a SQL Server](#)

Setting SQL Administrator Preferences

You can set options that control whether to show the Transact-SQL statements that are used to query the server and to specify where saved queries are stored.

To set SQL Administrator preferences

1. From the Manage menu, choose Preferences.
The SQL Administrator Preferences dialog box appears.
2. Set the appropriate preferences.
3. Choose OK.

Setting SQL Administrator Configuration Information

You can set options that control how often server statistics are updated and how long the server should wait before terminating a login attempt.

To set SQL Administrator configuration information

1. From the Manage menu, choose Configure.
The SQL Administrator Configuration dialog box appears.
2. Set the appropriate configuration information.
3. Choose OK.

Printing, Saving, and Editing SQL Administrator Windows

You can print or save the information that appears in a SQL Administrator window. For example, if you want to keep a record of the devices shown in the Current Devices window, you can print it or save the information to a file. You can also edit the report windows: the Database Consistency Check Report, the System Statistics History, the SQL Server User Query Results, and the Error Log Report.

To print the information in a window

- From the File menu, choose Print.

To save the information in a window

1. From the File menu, choose Save As.
The Save As dialog box appears.
2. In the File Name box, type a name for the file.

To edit the information in a report window

- From the Edit menu, choose the appropriate editing task.

Viewing a Device

SQL Server databases and transaction logs are stored in files called devices. You can view all of the devices on a SQL Server. The Device Management window lists the devices and displays the type and size of the device, the filename, the device number, the space available on the device, and whether it is mirrored.

To view a device

- From the Microsoft SQL Administrator window, choose the Devices button.
The Device Management window appears.

Related Topics

[Creating a Device](#)

[Setting Default Devices](#)

[Dropping a Device](#)

[Viewing Device Properties](#)

[Mirroring a Device](#)

Creating a Device

Databases and transaction logs are stored in files called devices. Database devices store databases and transaction logs; dump devices store database backups and transaction log backups. You cannot create a database until you create a device to store the database on. A device can store many databases, and a database can be stored on several devices.

To create a device

1. From the Microsoft SQL Administrator window, choose the Devices button.
The Device Management window appears.
2. From the Manage menu, choose Devices and then choose Create.
The Create Device dialog box appears.
3. Type a name for the device.
4. Type the path where you want the device to be located.
5. Select the type of device to create.
 - If you select Database:
 - a. Type the size of the device, in megabytes.
 - b. Choose OK.
 - If you select Disk Dump:
 - Choose OK.
 - If you select Floppy Dump A or Floppy Dump B:
 - Choose OK.
 - If you select Tape Dump:
 - a. For an OS/2-based server, select No Skip to label the tape, or select Skip to not label the tape. This is unnecessary for a Windows NT-based SQL Server.
 - b. Choose OK.

Related Topics

Dropping a Device

Setting Default Devices

You can set default devices for users to create databases on. If a device isn't specified when the database is created, the database is placed on a default device. There can be many default devices on a SQL Server. Default devices are used in alphabetical order, and one is filled before another is used.

To set a default device

1. From the Microsoft SQL Administrator window, choose the Devices button.
The Device Management window appears.
2. Select the database device to set as default.
3. From the Manage menu, choose Devices and then choose Default.
The selected device is labeled dflt.

Related Topics

[Creating a Device](#)

[Viewing Device Properties](#)

Dropping a Device

When you drop a device, the databases that are on it are also dropped. After you drop a device, you must shut down SQL Server and delete the device's filename from the directory where it is located. Shutting down SQL Server also frees the device number.

To drop a device

1. From the Microsoft SQL Administrator window, choose the Devices button.
The Device Management window appears.
2. Select the device to drop.
3. From the Manage menu, choose Devices and then choose Drop.

Related Topics

[Creating a Device](#)

Viewing Device Properties

You can view information about a device. The Device Properties dialog box displays the path of the device, a description of its contents, and a list of databases on that device with size, usage, and owner information.

To view device properties

1. From the Microsoft SQL Administrator window, choose the Devices button.
The Device Management window appears.
2. Select the device to view the properties of.
3. From the Manage menu, choose Devices and then choose Properties.
The Device Properties dialog box appears.

Related Topics

[Creating a Device](#)

[Setting Default Devices](#)

Mirroring a Device

Mirroring a device duplicates a SQL Server device. All transactions to that device are copied to its duplicate device. In the event that one device fails, the other contains an up-to-date copy of all transactions.

To mirror a device

1. From the Microsoft SQL Administrator window, choose the Devices button.
The Device Management window appears.
2. Select the device to mirror.
3. From the Manage menu, choose Mirroring and then choose Mirror.
The Mirror Device dialog box appears.
4. Type the path where you want the mirrored device to be located.
5. Select Serial to specify that writes to the original disk must finish before writes to the mirror disk begin. Or select No Serial to specify that writes can occur either simultaneously or serially. (With SQL Server for Windows NT, mirroring is always serial.)
6. Choose OK.

Related Topics

[Unmirroring a Device](#)

[Remirroring a Device](#)

Unmirroring a Device

A device can be unmirrored in two ways. If one of the devices fails, the device is automatically unmirrored. Or you can specify whether to unmirror the device or to replace the device with the mirrored device. When you unmirror the device, selecting Retain allows you to remirror the device at a later date.

To unmirror a device

1. From the Microsoft SQL Administrator window, choose the Devices button.
The Device Management window appears.
2. Select the device to unmirror.
3. From the Manage menu, choose Mirroring and then choose Unmirror.
The Unmirror Device dialog box appears.
4. Select Mirror to unmirror the device. Or select Database to replace the database device with the mirrored device.
5. Select Retain if you want to remirror the device later. Or select Remove to remove the mirror device permanently.
6. Choose OK.

Related Topics

[Mirroring a Device](#)

[Remirroring a Device](#)

Remirroring a Device

If you select Retain in the Unmirror Device Dialog box, you can remirror a device.

To remirror a device

1. From the Microsoft SQL Administrator window, choose the Devices button.
The Device Management window appears.
2. Select the device to remirror.
3. From the Manage menu, choose Mirroring and then choose Remirror.

Related Topics

[Mirroring a Device](#)

[Unmirroring a Device](#)

Viewing a Database

You can view a list of the databases available on the SQL Server that you are logged in to. The Database Management window also displays the size of the database, the space available on it, the database owner, and when the database was created.

To view a database

- From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.

Related Topics

[Creating a Database](#)

[Expanding a Database or a Transaction Log](#)

[Dropping a Database](#)

Creating a Database

Creating a database allocates storage space for the database on a device. It is important to accurately specify the size to allocate because it is difficult to reclaim storage space after it is allocated.

When you create a database you must specify a different device for the transaction log. If you do not specify a different device, the log is created as part of the database.

To create a database

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Databases and then choose Create Database.
The Create Database dialog box appears.
3. Type a name for the database.
4. Select the device to store the database on.
5. Type the size of the database. The default is the amount of space available on the selected device.
6. Select the device to store the transaction log on.
7. Type the size of the transaction log. The default is the amount of space available on the selected device.
8. Choose OK.

Related Topics

[Expanding a Database or a Transaction Log](#)

[Dropping a Database](#)

Expanding a Database or a Transaction Log

You can increase the space allocated for a database or its transaction log. You can allocate more space for a database or log on its current device, or you can allocate space to a different device. You must increase the size by at least 1 megabyte. You cannot decrease the size of a database or log.

You must expand the transaction log on a separate device than the database resides on.

To expand a database or a transaction log

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to expand, or select the database that contains the transaction log to expand.
3. From the Manage menu, choose Database and then choose Alter Database.
The Alter Database dialog box appears.
4. Select the device on which to expand the database.
5. Select the device on which to expand the transaction log.
6. Type the size to allocate for the database. The default is the amount of space available on the selected device.
7. Type the size to allocate for the transaction log. The default is the amount of space available on the selected device.
8. Choose OK.

Related Topics

[Creating a Database](#)

[Dropping a Database](#)

Dropping a Database

When you drop a database, the database and all its objects are removed. Dropping a database frees the storage space that was allocated for it.

To drop a database

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to drop.
3. From the Manage menu, choose Database and then choose Drop Database.

Related Topics

[Creating a Database](#)

[Expanding a Database or a Transaction Log](#)

Setting Database Options

You can set a number of options that customize the database.

To set database options

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to set options for.
3. From the Manage Menu, choose Database and then choose Options.
The Database Options dialog box appears.
4. Select the option.
5. Select True to set the option for the database; select False to turn off the option.
6. Repeat steps 4 and 5 for each option to change.
7. Choose OK.

Related Topics

[Creating a Database](#)

[Viewing Database Properties](#)

Assigning Permissions

You can assign specific permissions to users or groups to allow them to perform various database tasks. To assign statement permissions--SELECT, INSERT, UPDATE, DELETE--use Transact-SQL GRANT statements in the SQL Administrator Query window or by using Microsoft SQL Object Manager.

To assign permissions to a user or group

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to assign permissions on.
3. From the Manage menu, choose Users and then choose Permissions.
The Command Permissions dialog box appears.
4. Select the permissions to assign to the user or group.
5. Under Other Users, select the user.
6. Choose Add to move the user or group to the Users with Permissions box.
7. Repeat steps 5 and 6 for each user or group you want to assign those permissions to.
8. Choose Apply.
9. Choose Done.

Related Topics

[Viewing Users and Groups](#)

[Adding a User or an Alias](#)

Viewing Permissions

You can view the permissions granted to a user or group in a selected database.

To view permissions for a user or group

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to view permissions on.
3. From the Manage menu, choose Users and then choose Permissions.
The Command Permissions dialog box appears.
4. Select the user or group to view permissions for.
5. Choose User Zoom.
6. Choose Done.

Related Topics

[Assigning Permissions](#)

[Removing Permissions](#)

Removing Permissions

If you no longer want a user or group to have permissions in a database, you can clear specific permissions or remove the user or group from the list of users who have those permissions.

To remove a user's or group's permissions

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to remove permissions from.
3. From the Manage menu, choose Users and then choose Permissions.
The Command Permissions dialog box appears.
4. Under Other Users, select the user or group.
5. Choose Add.
6. Under Users With Permissions, select the user or group.
7. Choose User Zoom.
8. Clear the permissions to remove from the user or group, or select None to remove all the user's or group's permissions.
9. Choose Apply.
10. Choose Done.

Related Topics

[Assigning Permissions](#)

[Viewing Permissions](#)

Viewing Users and Groups

You can view the users and groups in a database.

To view users and groups

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select a database to view users and groups for.
3. From the Manage menu, choose Users and then choose Users/Groups.
The Database Users/Groups window appears.

Related Topics

[Adding a User or an Alias](#)

[Adding a Group](#)

[Dropping a User or an Alias from a Database](#)

[Removing a Group](#)

Adding a User or an Alias

Before a user can use a database, you must add the user's login ID to the SQL Server and then assign the user a username for that database. You can also add a user to a group or alias. If you don't specify a group name, the user is added only to the public group. All users are members of the public group.

To add a user or alias to a database

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select a database to add the user to.
3. From the Manage menu, choose Users and then choose Users/Groups.
The Database Users/Groups window appears.
4. From the Manage menu, choose Add User/Alias.
The Database User Properties dialog box appears.
5. Select the user's login ID, then type a username.
If you want the user to have an alias instead of a username, select an alias. If you want the user to belong to a group, select the group.
6. Choose OK.

Related Topics

[Adding a Group](#)

[Dropping a User or an Alias from a Database](#)

Adding a Group

Groups provide a convenient way to grant and revoke permissions to more than one user at the same time. Each user automatically belongs to the public group. At any one time, each user can be a member of only one group besides public.

To add a group

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to add the group to.
3. From the Manage menu, choose Users and then choose Users/Groups.
The Database Users/Groups window appears.
4. From the Manage menu, choose Add Group.
The Group Membership dialog box appears.
5. Type the name of the group.
6. In the Users Not in Group box, select the user to add.
7. Choose Add.
8. Repeat steps 6 and 7 for each user to add to the group.
9. Choose OK.

Related Topics

[Adding a User](#)

[Dropping a User or an Alias from a Database](#)

[Removing a Group](#)

Adding a User to a Group

Once you have created a group, you can add new users to that group at any time.

To add a user to a group

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database where the group resides.
3. From the Manage menu, choose Users and then choose Users/Groups.
The Database Users/Groups window appears.
4. Double-click the name of the group that you want to add the user to.
The Group Membership dialog box appears.
5. In the Users Not in Group box, select the user to add.
6. Choose Add.
7. Repeat steps 5 and 6 for any additional users to add.
8. Choose OK.

Related Topics

[Adding a User or an Alias](#)

[Adding a Group](#)

Removing a User from a Group

At any one time, each user can be a member of only one group besides public. Removing a user from a group removes the username from the list of group members and disassociates the user from any permissions assigned to the group. You cannot remove a user from the public group.

To remove a user from a group

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database where the group resides.
3. From the Manage menu, choose Users and then choose Users/Groups.
The Database Users/Groups window appears.
4. Double-click the name of the group to remove the user from.
The Group Membership dialog box appears.
5. In the Users in Group box, select the user to remove.
6. Choose Remove.
7. Repeat steps 5 and 6 for each user to remove.
8. Choose OK.

Related Topics

[Dropping a User or an Alias from a Database](#)

Dropping a User or an Alias from a Database

Dropping a user removes the user from a database. If the user owns database objects, you must first reassign ownership or drop the database objects before you can drop the user.

To drop a user or an alias from a database

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to drop the user from.
3. From the Manage menu, choose Users and then choose Users/Groups.
The Database Users/Groups window appears.
4. In the Current Users box, select the user to drop.
5. From the Manage menu, choose Drop User/Alias.

Related Topics

[Adding a User](#)

[Removing a Group](#)

Removing a Group

When you drop a group, all members are automatically removed.

To drop a group

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to drop the group from.
3. From the Manage menu, choose Users and then choose Users/Groups.
The Database Users/Groups window appears.
4. Select the group to drop.
5. From the Manage menu, choose Drop Group.

Related Topics

[Dropping a User or an Alias from a Database](#)

Viewing Database Properties

You can view detailed information about a particular database. The Database Properties dialog box displays the number of users in the database, the devices the database uses, the space allocated, and the options set for the database.

To view database properties

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select a database to view the database properties for.
3. From the Manage menu, choose Database and then choose Properties.
The Database Properties window appears.

Related Topics

[Expanding a Database or a Transaction Log](#)

[Dropping a Database](#)

[Setting Database Options](#)

Backing up a Database or a Transaction Log

Backing up a database copies its system tables and user-defined objects to the specified dump device. You should back up your database after you create it and continue to back it up on a set schedule.

If you store the transaction log on a different disk device from the database, you should back the log up more frequently in order to record changes made since the last database backup.

To back up a database or a transaction log

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select a database to back up, or select the database that contains the log to back up.
3. From the Manage menu, choose Backup/Restore and then choose Backup/Restore.
The Backup/Restore Database dialog box appears.
4. Select the dump device on which to back up the database or the transaction log.
5. Select the type of backup.
6. If you are backing up to tape and want to add the backup to the current backups on the tape, under Tape Control select Append Backup. To overwrite the information currently on the tape, clear the Append Backup box. This feature is only available with Microsoft SQL Server for Windows NT.
To view information about the tape's content, choose Read Tape.
7. Choose OK.

Related Topics

[Restoring a Database or a Transaction Log](#)

[Scheduling Database Backups](#)

Restoring a Database or a Transaction Log

If the device that a database resides on fails and the database is damaged, you can restore the database by reloading the most recent database dump and the succeeding log dumps. If you are restoring a database because of media failure, run DBCC, drop the damaged database, and re-create it before you reload the database.

To restore a database or a transaction log

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to restore.
3. From the Manage menu, choose Backup/Restore and then choose Backup/Restore.
The Backup/Restore Database dialog box appears.
4. Select the dump device to restore the data from.
5. Select Load Database to load the database. Or select Load Tran to load the log.
6. If you are restoring from a tape device, choose Read Tape to see a list of the backups for the current database. Then, from the File# Date/Time Dumped box, select the backup to restore. (This feature is available only with SQL Server for Windows NT.)
7. Choose OK.

Related Topics

[Backing Up a Database or a Transaction Log](#)

Viewing Scheduled Database Backups

You can view the schedule for the time and frequency that databases are backed up.

To view a scheduled database backup

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Backup/Restore and then choose Scheduled Backups.
The Scheduled Database Backup window appears.

Related Topics

[Scheduling Database Backups](#)

[Dropping a Scheduled Database Backup](#)

[Starting and Stopping the Scheduled Backup Engine](#)

[Clearing All Scheduled Backups](#)

[Viewing the History of Scheduled Backups](#)

Scheduling Database Backups

To ensure that your databases and logs are regularly backed up, you can set the SQL Monitor program to automatically back up your databases daily, weekly, biweekly, monthly, or bimonthly. The SQL Monitor program must be started before you can schedule database backups. If you have configured SQL Server for Windows NT to be mail enabled, SQL Monitor can also send mail messages to specific recipients about scheduled backup events.

To schedule a database backup

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Backup/Restore and then choose Scheduled Backups.
The Scheduled Database Backup window appears.
3. From the Manage menu, choose Add Event.
The Scheduled Backup Event Entry dialog box appears.
4. Select the database to back up and the dump device on which to back up the database or log.
If you are backing up to tape and want to add the database backup to the backups on the current tape, select the Append check box. (This feature is available only with SQL Server for Windows NT.)
5. Select a day, a frequency, and a start time for the backup.
6. Select Yes to activate the backup. Or select No to schedule the backup but not start it.
7. To send mail about scheduled backup events to a list of recipients, in the Email box type the recipients' names. This list can contain up to 60 characters; if you specify more than one name, separate the names with semicolons.
8. Choose OK.

Related Topics

[Viewing Scheduled Database Backups](#)

[Dropping a Scheduled Database Backup](#)

[Starting and Stopping the Scheduled Backup Engine](#)

[Clearing All Scheduled Backups](#)

[Viewing the History of Scheduled Backups](#)

Changing a Scheduled Database Backup

If you want to revise the database or transaction log backup schedule, you can reschedule the backups. The SQL Monitor program must be started before you can change a scheduled backup.

To change a scheduled database backup

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Backup/Restore and then choose Scheduled Backups.
The Scheduled Database Backup window appears.
3. Double-click the scheduled backup to change.
The Scheduled Backup Event Entry dialog box appears.
5. Change the appropriate information.
6. Choose OK.

Related Topics

[Viewing Scheduled Database Backups](#)

[Dropping a Scheduled Database Backup](#)

[Scheduling Database Backups](#)

Pausing a Scheduled Database Backup

You can temporarily stop a scheduled database backup without removing its entry from the backup schedule. The SQL Monitor program must be started before you can pause a scheduled backup.

To pause a scheduled database backup

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Backup/Restore and then choose Scheduled Backups.
The Scheduled Database Backup window appears.
3. Double-click the scheduled backup to pause.
The Scheduled Backup Event Entry dialog box appears.
4. Under Enable, select No.
To restart the scheduled backup, select Yes.
5. Choose OK.

Related Topics

[Changing a Scheduled Database Backup](#)

[Dropping a Scheduled Database Backup](#)

Dropping a Scheduled Database Backup

If you no longer want a database to be backed up on a routine schedule, you can cancel the scheduled database backup. The SQL Monitor program must be started before you can drop a scheduled backup.

To drop a scheduled database backup

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Backup/Restore and then choose Scheduled Backups.
The Scheduled Database Backup window appears.
3. Select the scheduled backup to drop.
4. From the Manage menu, choose Drop Event.

Related Topics

[Scheduling Database Backups](#)

[Starting and Stopping the Scheduled Backup Engine](#)

[Clearing All Scheduled Backups](#)

[Pausing a Scheduled Database Backup](#)

Viewing Thread Usage

For SQL Server for Windows NT, SQL Server takes advantage of the native thread services of Windows NT. For SQL Server for OS/2, SQL Server uses an OS/2 thread to manage each database device and two threads to manage each remote server. With OS/2 version 1.3, the maximum number of threads used by SQL Server is 53. You can view how the threads are being used and how many you have left to use. Note that with Windows NT, this dialog box is unnecessary and does not appear.

To view thread usage (OS/2 only)

1. From the Microsoft SQL Administrator window, choose the System button.
The Sys Options/Active Resources window appears.
2. From the Manage menu, choose Thread Usage.
The SQL Server Thread Usage dialog box appears.
3. Choose OK.

Starting and Stopping the Scheduled Backup Engine

You must start the backup engine to perform scheduled backups. If you want to cancel scheduled backups, you can stop the engine. The SQL Monitor program must also be running. You can start the scheduled backup engine from SQL Administrator if you are using SQL Administrator on a Windows NT-based computer. Otherwise, you must start the scheduled backup engine from the server's command line.

To start the backup engine

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Backup/Restore and then choose Scheduled Backups.
The Scheduled Database Backup window appears.
3. From the Manage menu, choose Start/Stop Backup Engine.

To stop the backup engine

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Backup/Restore and then choose Scheduled Backups.
The Scheduled Database Backup window appears.
3. From the Manage menu, choose Start/Stop Backup Engine.

Related Topics

[Scheduling Database Backups](#)

[Viewing the History of Scheduled Backups](#)

Clearing All Scheduled Backups

If you no longer want the currently scheduled backups, you can cancel all of them at once. The SQL Monitor program must be started before you can clear all scheduled backups.

To clear all scheduled backups

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Backup/Restore and then choose Scheduled Backups.
The Scheduled Database Backup window appears.
3. From the Manage menu, choose Clear Schedule.

Related Topics

[Viewing Scheduled Database Backups](#)

Clearing the Scheduled Database Backup Log

If the database backup log is getting full, you can clear the log. The SQL Monitor program must be started before you can clear the backup log.

To clear the scheduled database backup log

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Backup/Restore, and then choose Scheduled Backups.
The Scheduled Database Backup window appears.
3. From the Manage menu, choose Clear Log.

Related Topics

[Viewing the History of Scheduled Backups](#)

Viewing the History of Scheduled Backups

You can view the history of scheduled backups.

To view the history of scheduled backups

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Backup/Restore and then choose Scheduled Backups.
The Scheduled Database Backup window appears.
3. From the Manage menu, choose History.
The Scheduled Database Backup History window appears.

Related Topics

[Viewing Scheduled Database Backups](#)

[Scheduling Database Backups](#)

[Starting and Stopping the Scheduled Backup Engine](#)

Viewing Segments

Segments are subsets of a device. Using segments can increase SQL Server efficiency by giving you more control over where you place specific database objects to optimize the space available.

To view segments

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to view segments for.
3. From the Manage menu, choose Segments.
The Segment Management window appears.

Related Topics

[Adding a Segment](#)

[Dropping a Segment](#)

Adding a Segment

Segments are subsets of a device. Using segments can increase SQL Server efficiency by giving you more control over where you place specific database objects to optimize the space available. You must first create a device and a database before adding a segment. After you add a segment, you can explicitly place database objects on the segment.

To add a segment

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to create a segment for.
3. From the Manage menu, choose Segments.
The Segment Management window appears.
4. From the Manage menu, choose Add Segment.
The Add Segment dialog box appears.
5. Type the name of the segment.
6. Select a device to put the segment on.
7. Choose OK.

Related Topics

[Dropping a Segment](#)

Extending a Segment

Segments are subsets of a device. You can span a segment across different devices that are used by a database. Before you can extend a segment, you must create the device, and the database must have access to that device.

To extend a segment

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database that contains the segment to extend.
3. From the Manage menu, choose Segments.
The Segment Management window appears.
4. Select the segment to extend.
5. From the Manage menu, choose Extend Segment.
The Extend Segment dialog box appears.
6. Select a device to extend the segment to.
7. Choose OK.

Related Topics

[Adding a Segment](#)

[Dropping a Segment](#)

Viewing Segment Properties

You can view detailed information about the database objects stored on a segment.

To view the properties of a segment

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. From the Manage menu, choose Segments.
The Segment Management window appears.
3. Select the segment to view properties for.
4. From the Manage menu, choose Segment Properties.
The Segment Properties dialog box appears.

Related Topics

[Adding a Segment](#)

[Dropping a Segment](#)

Dropping a Segment

When you drop a segment, the database objects on that segment are automatically moved to the default segment. You can also drop a segment from one device and leave it on other devices. For example, if you have a segment that spans three devices, you can drop the segment from one of the devices while leaving it on the other two. The information that was stored on the dropped portion of the segment is redistributed onto the remaining devices.

To drop a segment

1. From the Microsoft SQL Administrator window, choose the DB button.
The Database Management window appears.
2. Select the database to drop the segment from.
3. From the Manage menu, choose Segments.
The Segment Management window appears.
4. Select the segment to drop.
5. From the Manage menu, choose Drop Segment.
The Drop Segment dialog box appears.
6. Select the device to drop the segment from.
7. Choose OK.

Related Topics

[Adding a Segment](#)

[Extending a Segment](#)

Viewing System Logins

You can view information about users on a SQL Server. The System Logins Management window displays each user's login ID and username, the default database, and the default language for the user.

To view system logins

- From the Microsoft SQL Administrator window, choose the Logins button. The System Logins Management window appears.

Related Topics

[Adding a Login ID to a Server](#)

[Dropping a Login ID from a Server](#)

Adding a Login ID to a Server

Before a user can gain access to a SQL Server, you must add the user's login ID to the server. You can also assign the user a password, a username, a default database, and a default language. If you don't assign a default database, the master database is used as the default. If you don't assign the user a username in the default database, the username is the same as the user's login ID.

To add a user login ID to a server

1. From the Microsoft SQL Administrator window, choose the Logins button.
The System Logins Management window appears.
2. From the Manage menu, choose Add Login.
The System Login Properties dialog box appears.
3. Type a login ID, password, and username for the user.
4. Select a default database and a default language for the user.
5. Choose OK.

Related Topics

[Dropping a Login ID from a Server](#)

[Changing a Login Password](#)

[Changing a User's Default Database](#)

Dropping a Login ID from a Server

If you no longer want a user to have access to a SQL Server, you must remove the user's login ID from the server.

To drop a user login ID from a server

1. From the Microsoft SQL Administrator window, choose the Logins button.
The System Logins Management window appears.
2. Select the login ID to drop.
3. From the Manage menu, choose Drop Login.

Related Topics

[Adding a Login ID to a Server](#)

Changing a Login Password

To change a login password

1. From the Microsoft SQL Administrator window, choose the Logins button.
The System Logins Management window appears.
2. Select the login ID of the user.
3. From the Manage menu, choose Password.
The Change Password dialog box appears.
4. Type the new password.
5. Re-enter the new password.
6. Choose OK.

Related Topics

[Adding a Login ID to a Server](#)

Changing a User's Default Database

Either the SA or the user can change a user's default database. After the default database is changed, the user is connected to the new default database the next time the user logs in. However, before the user can access the new default database, the user must be assigned permissions for that database.

To change a user's default database

1. From the Microsoft SQL Administrator window, choose the Logins button.
The System Logins Management window appears.
2. Double-click the login ID of the user.
The System Login Properties dialog box appears.
3. Select the new default database name.
4. Type the username required to access the database.
5. Choose OK.

Related Topics

[Adding a Login ID to a Server](#)

[Viewing a Database](#)

[Viewing Permissions](#)

Viewing Login Information

You can view system login information for a user. The System Login User Zoom dialog box displays the user's default database, username, alias, and the number of objects the user owns for each database that user belongs to.

To view login information for a user

1. From the Microsoft SQL Administrator window, choose the Logins button.
The System Logins Management window appears.
2. Select the login ID for the user.
3. From the Manage menu, choose Zoom Login.
The System Login User Zoom dialog box appears.

Related Topics

[Adding a Login ID to a Server](#)

[Changing a User's Default Database](#)

Viewing Remote Servers

You can view all of the remote SQL Servers that are available to the server you're logged in to.

To view remote servers

- From the Microsoft SQL Administrator window, choose the Remotes button.
The Remote Server Management window appears.

Related Topics

[Adding a Remote Server](#)

[Viewing Remote Logins](#)

Adding a Remote Server

A remote server is a SQL Server on the network that you can access through your local server. After you set up a remote server, users can use their local server to get information from the remote server.

When you add a remote server, you must set up and configure both the local and remote server. On the user's local server, you must add the servername of the remote server (for OS/2-based SQL Servers you must also add the name of the local server). On the remote server, you must also add the servername of the remote server (for OS/2-based SQL Servers you must also add the name of the local server).

You must also set the options for the remote server in the System Configuration dialog box on both servers.

To add a remote server

1. From the Microsoft SQL Administrator window, choose the Remotes button.
The Remote Server Management window appears.
2. From the Manage menu, choose Add Remote Server.
The Add Remote Server dialog box appears.
3. Select or type the name of the remote server.
4. Type the name of the local server (the server you are connected to).
5. Choose OK.
6. For OS/2-based servers, from the Manage menu, choose Add Remote Server again.
7. Choose OK.

To set the options

8. From the Microsoft SQL Administrator window, choose the System button.
9. From the Manage menu, choose Configure SQL Server.
10. From the Options box:
 - a. Set the Remote Access option to 1.
 - b. Set the Remote Connections option to the number of remote connections permitted.
 - c. Set the Remote Logins option to the number of remote logins permitted.
 - d. Set the Remote Sites option to the number of remote servers permitted.
11. Choose OK.

Repeat steps 1 through 11 on both the local and remote servers.

Related Topics

[Viewing Remote Logins](#)

[Dropping a Remote Server](#)

Setting Remote Server Options

The remote server option timeouts specifies whether to drop the connection to the remote server if there has been no remote user activity for 1 minute.

To set remote server options

1. From the Microsoft SQL Administrator window, choose the Remotes button.
The Remote Server Management window appears.
2. From the Current Remote Servers box, select the remote server to set options for.
3. From the Manage Menu, choose Remote Server Options.
The Remote Server Options dialog box appears.
4. Under Option, select the timeouts option.
The Option Description box defines the timeouts option.
5. Under Value, select True to set the option for the server; select False to turn off the option.
6. Choose OK.

Related Topics

[Adding a Remote Server](#)

Dropping a Remote Server

When you drop a remote server, you can no longer access its information through your local server. To gain access to the information on that server, you must log in to it directly.

To drop a remote server

1. From the Microsoft SQL Administrator window, choose the Remotes button.
The Remote Server Management window appears.
2. Select the server to drop.
3. From the Manage menu, choose Drop Remote Server.

Related Topics

[Viewing Remote Logins](#)

[Dropping a Remote Login ID](#)

Viewing Remote Logins

You can view a list of users who have login IDs on a remote server. The Remote Logins Management window displays the remote login IDs of the users on that server, their corresponding local login IDs, and whether the server checks for a password.

To view remote logins

1. From the Microsoft SQL Administrator window, choose the Remotes button.
The Remote Server Management window appears.
2. Select the server to view remote users on.
3. From the Manage menu, choose Remote Logins.
The Remote Logins window appears.

Related Topics

[Adding a Remote Login ID](#)

[Dropping a Remote Login ID](#)

Adding a Remote Login ID

Before a user can access a remote server, the user must have a remote login ID for that server. You can use the user's local login ID as the remote login ID, or you can assign a new login ID for the remote server. You can also assign the same remote login ID to several users.

To add a remote login ID

1. Connect to the remote server that you want the user to have access to.
2. From the Microsoft SQL Administrator window, choose the Logins button.
The System Login Management window appears.
3. From the Manage menu, choose Add Login.
The System Login Properties dialog box appears.
4. Add the login ID that the user will use to access the remote server.
5. Choose OK.
6. From the Microsoft SQL Administrator window, choose the Remotes button.
The Remote Server Management window appears.
7. Select the server (the user's local server).
8. From the Manage menu, choose Remote Logins.
The Remote Logins window appears.
9. From the Manage menu, choose Add Remote Logins.
The Remote Login Properties dialog box appears.
10. Select the remote and local login IDs.
11. Choose OK.

Related Topics

[Dropping a Remote Login ID](#)

Setting the Remote Login Option

You can set a user's remote login IDs to be trusted or untrusted. Trusted specifies that passwords are not verified for a server to accept remote login IDs; untrusted specifies that passwords are verified. The default is untrusted.

To set the remote login option

1. From the Microsoft SQL Administrator window, choose the Remotes button.
The Remote Server Management window appears.
2. From the Manage menu, choose Remote Logins.
The Remote Logins window appears.
3. Select the trusted option.
4. Select True to specify trusted; select False to specify untrusted.
5. Choose OK.

Related Topics

[Adding a Remote Login ID](#)

Dropping a Remote Login ID

When you drop a user's login ID for a remote server, the user can no longer access that remote server.

To drop a remote login ID

1. From the Microsoft SQL Administrator window, choose the Remotes button.
The Remote Server Management window appears.
2. From the Manage menu, choose Remote Logins.
The Remote Logins window appears.
3. Select the remote login ID to drop.
4. From the Manage menu, choose Drop Remote Login.

Related Topics

[Adding a Remote Login ID](#)

Viewing Active System Resources

You can view the current sessions running on a SQL Server, the login IDs of the users on the server, and the applications and databases the users are using. You can also view the current commands being sent to the server.

To view active resources

- From the Microsoft SQL Administrator window, choose the System button. The Sys Options/Active Resources window appears.

Related Topics

[Viewing SQL Server Statistics](#)

Starting a SQL Server

To start a SQL Server using SQL Administrator, you must be using SQL Administrator on a Windows NT-based computer or have a Microsoft LAN Manager version 2.1 or later network. Otherwise, you must start the server from the server command line.

To start a SQL Server from Microsoft SQL Administrator

1. From the Microsoft SQL Administrator window, choose the System button.
The Sys Options/Active Resources window appears.
2. From the Manage menu, choose Start SQL Server.
The Start SQL Server dialog box appears.
3. Type the server name.
4. Choose OK.

Related Topics

[Stopping a SQL Server](#)

[Configuring a SQL Server](#)

Stopping a SQL Server

Several SQL Server administration tasks require the server to be stopped and started again before changes take effect.

To stop a SQL server

1. From the Microsoft SQL Administrator window, choose the System button.
The Sys Options/Active Resources window appears.
2. From the Manage menu, choose Shutdown SQL Server.
The SQL Server Shutdown dialog box appears.
3. Choose OK.

Related Topics

[Starting a SQL Server](#)

Configuring a SQL Server

SQL Server has a series of options that you can configure to optimize server performance. Each option is described in the System Configuration dialog box. Some options are applicable to only SQL Server for OS/2.

To configure a SQL Server

1. From the Microsoft SQL Administrator window, choose the System button.
The Sys Options/Active Resources window appears.
2. From the Manage menu, choose Configure SQL Server.
The System Configuration dialog box appears.
3. Select the option to set.
4. Type the new value of the option.
Repeat steps 3 and 4 for each option to set.
5. Choose OK.

Related Topics

[Stopping a SQL Server](#)

[Starting a SQL Server](#)

Checking Database Consistency

If there is a problem with the structure of a database or the data in it, you can use the database consistency checker (DBCC) to locate the problem.

To check database consistency

1. From the Microsoft SQL Administrator window, choose the System button.
The Sys Options/Active Resources window appears.
2. From the Manage menu, choose DBCC.
The Database Consistency Checker dialog box appears.
3. Select the option to check.
4. Select the database to check the option on.
5. If you select the Check Table option, select a table name.
6. Choose OK.
The results are displayed in a report window.

Viewing SQL Server Statistics

You can view the statistics for a SQL Server. The SQL Server Statistics dialog box displays the status of each activity on the server.

To view SQL Server statistics

1. From the Microsoft SQL Administrator window, choose the System button.
The Sys Options/Active Resources window appears.
2. From the Manage menu, choose Statistics.
The SQL Server Statistics dialog box appears.

Related Topics

[Viewing Statistics History](#)

[Starting the SQL Server Statistics Engine](#)

[Stopping the SQL Server Statistics Engine](#)

Viewing Statistics History

You can view the history of statistics for a SQL Server once the SQL Server statistics engine is started. The System Statistics History Report window displays the history of each activity on the server.

To view the history of a statistic

1. From the Microsoft SQL Administrator window, choose the System button.
The Sys Options/Active Resources window appears.
2. From the Manage menu, choose Statistics.
The SQL Server Statistics dialog box appears.
3. In the Statistics box, select an item.
4. Choose History.
The results are displayed in a report window.

Related Topics

[Viewing SQL Server Statistics](#)

[Starting the SQL Server Statistics Engine](#)

[Stopping the SQL Server Statistics Engine](#)

Starting the SQL Server Statistics Engine

You must start the statistics engine in order to record server statistics. You must start SQL Monitor before you start the statistics engine.

To start the SQL Server statistics engine

1. From the Microsoft SQL Administrator window, choose the System button.
The Sys Options/Active Resources window appears.
2. From the Manage menu, choose Statistics.
The SQL Server Statistics dialog box appears.
3. Choose Start Engine.
If the engine is running, the Start button becomes the Stop button.
4. Choose OK.

Related Topics

[Stopping the SQL Server Statistics Engine](#)

Stopping the SQL Server Statistics Engine

You can stop the statistics engine if you no longer want to record server statistics.

To stop the SQL Server statistics engine

1. From the Microsoft SQL Administrator window, choose the System button.
The Sys Options/Active Resources window appears.
2. From the Manage menu, choose Statistics.
The SQL Server Statistics dialog box appears.
3. Choose Stop Engine.

Related Topics

[Starting the SQL Server Statistics Engine](#)

Viewing the Error Log

You can view error log information for a SQL Server once the SQL Monitor program is started.

To view the error log

1. From the Microsoft SQL Administrator window, choose the System button.
The Sys Options/Active Resources window appears.
2. From the Manage menu, choose Error Log.
A report window containing the error log appears.

Querying a Database

Using Transact-SQL statements, you can query a database. While the SQL Server is processing a query, you can administer other SQL Servers. When the query results start to return to the workstation, the results window appears, and becomes the active window. You can print or save the query results.

To query a database

1. From the Microsoft SQL Administrator window, choose the Query button.
The Query window appears.
2. Using Transact-SQL syntax, type your query in the Query window.
3. Choose Execute, or press ALT+X or CTRL+E. To execute only a portion of a query, select that section and choose Execute.

Related Topics

[Using a Saved Query](#)

[Saving a Query to a File](#)

[Setting Query Options](#)

[Editing Query Results](#)

Using a Saved Query

You can execute queries that have been saved to a file.

To use a saved query

1. From the Microsoft SQL Administrator window, choose the Query button.
The Query window appears.
2. From the File menu, choose Open.
The Open dialog box appears.
3. Select a file.
4. Choose OK.
The query is loaded into the Query window.
5. Choose Execute, or press ALT+X or CTRL+E.

Related Topics

[Querying a Database](#)

[Saving a Query to a File](#)

[Setting Query Options](#)

[Editing Query Results](#)

Saving a Query to a File

If you plan to use a query more than once, you can save the query to a file.

To save a query to a file

1. From the Microsoft SQL Administrator window, choose the Query button.
The Query window appears.
2. Using Transact-SQL syntax, type a query in the Query window.
3. From the File menu, choose Save As.
The Save As dialog box appears.
4. Type a filename.
5. Choose OK.

Related Topics

[Querying a Database](#)

[Using a Saved Query](#)

[Setting Query Options](#)

[Editing Query Results](#)

Setting Query Options

You can set options that determine how a query is processed each time you execute the query.

To set query options

1. From the Microsoft SQL Administrator window, choose the Query button.
The Query window appears.
2. From the Manage menu, choose Set Options.
The Query Options dialog box appears.
3. Set the appropriate options.
4. Choose OK.

Related Topics

[Querying a Database](#)

[Using a Saved Query](#)

[Saving a Query to a File](#)

[Editing Query Results](#)

Editing Query Results

After you have executed a query and the results window appears, you can edit the contents of that window. You can also print or save all or a portion of the information.

To edit query results

1. From the Microsoft SQL Administrator window, choose the Query button.
The Query window appears.
2. Using Transact-SQL syntax, type a query in the Query window.
3. Choose Execute.
4. When the results appear, edit the information.

Related Topics

[Querying a Database](#)

[Using a Saved Query](#)

[Saving a Query to a File](#)

[Setting Query Options](#)

Changing Databases

When you are in the Query window you can change databases to execute a query in another database.

To change databases

1. From the Microsoft SQL Administrator window, choose the Query button.
The Query window appears.
2. From the Manage menu, choose Change Database.
The Change Database dialog box appears.
3. Choose the database you want to query.
4. Choose OK.

Analyzing Queries with Graphical Showplan

Graphical Showplan shows the query execution plan for a query. You can generate the query plan without executing the query by choosing the NO EXEC option. You can also generate a textual execution plan of the query by setting Show Query Plan in the Query Options dialog box.

To use graphical showplan

1. Type a query in the Query window.
2. Choose the Showplan button (shown above).

To generate Showplan results without executing the query, choose the NO EXEC button.

3. Choose the Execute button, or press ALT+X or CTRL+E.

The Query Plan window appears. You can change the font of the query plan text, zoom out to view an overview of the query execution plan, zoom in to view the detailed query execution plan, and display the steps of the query plan.

[Details About the Query Chart](#)

[Details About the Query Plan Steps](#)

Related Topic

[Analyzing Queries with Graphical Statistics I/O](#)

Details About the Query Chart

The Query Plan chart shows the name of the table(s) used, the method used to access the table(s), and the join path between tables. SQL Server uses one of three methods to access the table(s):

- Using the clustered index (indicated by a green border)
- Using a specified index (indicated by a yellow border)
- Using a table scan, in which no indexes are used and the table is scanned sequentially (indicated by a red border)

Details About the Query Plan Steps

The query plan steps contain three parts: the result number, the steps that indicate subprocesses that occur during the query execution, and the action. The steps indicate the path that the optimizer chose to most efficiently process the query. Multistep processes usually occur when data must first be gathered and then sorted in a worktable. The action indicates the processing occurring on the tables listed in the chart.

Action	Result
SELECT	The query will retrieve data from the tables listed.
SELECT (into worktable)	The query will retrieve data from the tables listed and put the data into a worktable for further processing.
INSERT	The query is inserting data into the listed tables.
DELETE	The query is deleting data from the listed tables.
UPDATE	The query is updating data in the listed tables.
/Sorting	The query will sort the data in the listed tables.

Analyzing Queries with Graphical Statistics I/O

Graphical Statistics I/O depicts the amount of disk I/O required to access data for a query. You must execute the query in order to get Statistics I/O information, so the NO EXEC option must be turned off. You can also generate a textual description of the Statistics I/O by choosing Show Stats I/O in the Query Options dialog box. There are three I/O statistics: Scan Count, Logical Reads, and Physical Reads.

To use graphical Statistics I/O

1. Type a query in the Query window.
2. Choose the Statistics I/O button.
3. Choose the Execute button, or press ALT+X or CTRL+E.

The Statistics I/O window appears. You can change the colors of the bar chart, change the text font, and display a legend for the chart.

Related Topics

[Analyzing Queries with Graphical Showplan](#)

Scan Count

Indicates the number of times the query engine "visited" the table during the process of retrieving the data. Generally, for single table queries, the table is scanned once. For "lookup tables" (tables that are joined during processing in order to get more information), the scan count indicates the number of times the table was accessed.

Logical Reads

Indicates the number of index and data pages that were required to get the data needed for the query. This does not equal to the number of rows retrieved for a table, because a page of data can contain many rows.

Physical Reads

Indicates the number of logical reads that actually resulted in data access on the disk. The difference between logical and physical reads indicates the amount of data that was cached. Tables and worktables can appear multiple times in order to process all the data required for the query.

Using SQL Administrator

Microsoft SQL Administrator is a graphical tool used for administering Microsoft SQL Server. You can do all of your administrative tasks using SQL Administrator.

If this is your first time administering SQL Server, follow these steps to quickly get the server set up for users and data. Double-click the topics below for more information. For more information about the administrative tasks you can do with SQL Administrator, see the online Help Contents.

To get started

1. [Log In to a SQL Server](#)
2. [Create a Device](#)
3. [Create a Database](#)
4. [Add a Login Identification to a Server](#)
5. [Add a User](#)
6. [Assign a User's Database Permissions](#)
7. [Query a Database](#)

Related Topics:

[SQL Administrator Contents](#)

