Know Your Network

A New Administrator's Guide to Network Monitoring

SQL Server Monitor

Microsoft® SQL Server is a relational database management system developed by Microsoft.

SQL (Structured Query Language, referred to as 'sequel' or by the letters S-Q-L) is a language that gives users an interface to a relational database where they can find and process data stored within. At the present time, it is the most widely used database language.

In the database, information is stored in tables that are made up of many columns and rows. Each column handles a specific type of information, and each row represents a record entered into the table. A row may represent a customer, and each column may contain specifics about that customer.

Microsoft SQL Server is a packaged brand of SQL that many companies use and depend on for their daily operation. When a company installs SQL Server, it is usually used for several purposes, with the server administrator creating a database for each use. For more information about Microsoft SQL Server, visit Microsoft.com:

http://www.microsoft.com/sql/

Along with the full version of SQL Server, Microsoft has also developed MSDE (Microsoft Desktop Engine) which works like SQL server, but has a 2GB limit on data, and contains a single database. There is also a user interface with SQL Server that is not used by MSDE.

No matter which version of SQL Server you use, you should always be concerned with its proper function and constant availability. Without it, the information in the database cannot be retrieved and many of your applications that rely on the database will simply not work.

Using a network monitoring tool like WhatsUp Gold Premium Edition you can keep a constant watch over specific items or parameters in your SQL server. The following section describes the application and how you can use it to monitor your databases.

Monitoring SQL Server

WhatsUp Gold Standard and Premium Editions can monitor and report the status of the standard services associated with standard TCP/IP servers, such as SMTP, POP3, and IMAP, FTP, HTTP. If any of these services fail, your users will be unable to get mail, transfer files, or use the web. It is a good idea to set up monitoring on these services so that you are the first to know if they fail.

The SQL Server Monitor extends monitoring to parameters reported by Microsoft SQL Server (and Microsoft MSDE), allowing you to get an early warning of a degradation in performance. For example, you can monitor system parameters on your SQL Server database server to see if performance is within an expected range, and if not, you can intervene before the SQL Server fails. In other words, you can detect a looming problem before it causes an application or service failure.

The SQL Server Monitor supports monitoring of Microsoft SQL Server 2000 or later versions, and MSDE 2000 or later versions, which can be on any machine in your network.

Getting Started With the SQL Monitor

Before configuring your SQL monitor(s), you should determine which parameters and services you need to monitor. You should also consider whether you want to create a single monitor with multiple parameters, several monitors with one parameter or service, or a combination of the two. If you create a single monitor to watch all of the parameters, you will not know which parameter has the problem until you do a little research. There is more set up time with the other options, but the troubleshooting time is greatly reduced.

Note: To use some of the parameters, you must configure your System Data Source (ODBC) name for the SQL Server. This is done in the Windows Data Sources (ODBC) Administrator.

During the creation of your monitors, you also assign the alerts and actions you want

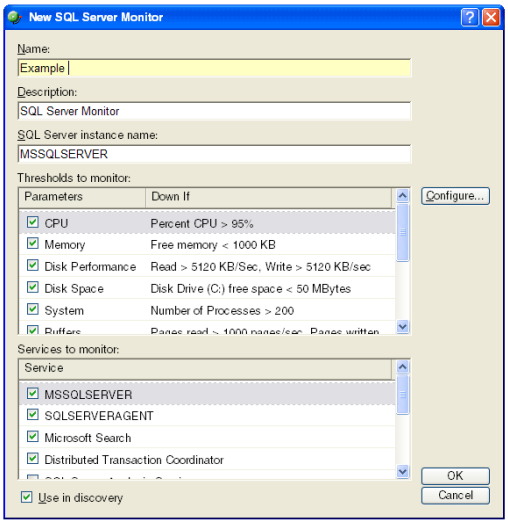
WhatsUp to fire when one of the monitors goes down.

Configuring a SQL Monitor

To configure an instance of the SQL Server Monitor, you must first have WhatsUp Gold Premium Edition installed. Then:

1. From the Configure menu, select **Active Monitor Library**.
2. The Active Monitor Library is the starting point for creating any Active Monitor in WhatsUp Gold. This dialog shows all of the Active Monitors in your database.
3. Add an SQL monitor:
   - Click **New**. The Select Active Monitor Type dialog appears.
   - Select SQL Service Monitor and click OK.
   - The **New SQL Service Monitor** dialog appears.
4. Select the parameters and or processes to add to the monitor.

Once the Active Monitor is created, you can assign that monitor to the device representing the computer running the SQL Server. You may also use the monitor during device discovery.



An Example

To monitor user activity, we'll create a monitor called "SQLUser," then select Users as the only parameter to monitor.

1. Access the SQL Server Monitor properties as described in the section above.
2. Name the monitor “SQLUser.”
3. Make sure that Users is the only parameter that has a check in the box to the left to it. You will need to clear the selections for the other parameters and also for the processes.
4. Click the Users parameter to select it, and then click **Configure**. The Users Threshold dialog appears. You should have in mind how many users or connections you want to consider as a threshold, and enter those values in the appropriate boxes on the dialog.
5. When finished, click **OK** to add the SQLUser monitor to the Active Monitor Library.

Once the monitor has been created, you are ready to add the "SQLUser" monitor to your SQL server device.

1. Select the device that represents the SQL server. Double-click the device to display its properties.
2. Select the Active Monitors icon.
3. On the Active Monitor dialog, click **Add**. The Active Monitor wizard appears.
4. Follow the wizard to add the active monitor to the device.

More Information

For more information about how to use WhatsUp Gold Standard and Premium Editions, refer to the User Guide, and the WhatsUp Gold online help. Both are great resources for configuration and solution information.