

Client Side Performance Tracking


Client Statistics

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Topics Covered

- **SqlConnection.StatisticsEnabled**
 - Enabling client side statistics gathering
- **RetrieveStatistics**
 - Gather run-time statistics from statements
-  **Understanding the statistics provided**
 - Overview of the various statistics returned by SqlConnection

When to use SqlConnection Statistics?

- **SQL Server/SQL Database performance issues**
 - Are you waiting a lot on server resources? Network latency?
- **Gaining insights into SQL Database performance**
 - SQL Profiler is not available for SQL Database
- **Inspecting the behavior of your client application**
 - Are you consuming too many rows? Too many roundtrips?



Enabling Statistics

- **Open Connection to SQL Server or SQL Database**
 - A connection must be established before enabling statistics
- **Execute Statement against the database**
 - Captures time spent on the server, plus the time spent by the provider
- **Call RetrieveStatistics**
 - Returns a collection of KeyValuePair containing the statistics



Enabling statistics has a minor impact on performance; use for troubleshooting only

A Few Statistics

Statistic	Comment
BytesReceived	Total bytes received from SQL Server/SQL Database
BytesSent	Total bytes sent to SQL Server/SQL Database
ConnectionTime	Total connection time since Statistics were enabled
ExecutionTime	Total statement processing time (server and client)
IduCount	Number of Inserts, Deletes and Updates performed
IduRows	Number of rows affected by Inserts, Deletes and Updates
NetworkServerTime	Total time data provider waited for database responses
SelectRows	Number of rows returned by SELECT statements
ServerRoundTrips	Number of responses received from the database server



For a complete list of statistics, visit <http://tinyurl.com/pqrzjod>