

TCP Sample

Installation

The sample was written in Visual Studio 2002.
You need to unpack the provided archive and open the *TCP > Project.sln* solution file. Then rebuild the solution.
Press **F5** to run both client and server in Visual Studio.

Configuration

Server IP address is specified in the *Client > App.config* file. You can directly modify *Client > Bin > Debug > Client.exe.config* if you need to change the IP address without recompiling the solution.

Design

Known layer contains the declaration of the operation interface.

Server provides the business object bound to the known URI. Server performs *Thread.Sleep* operation to simulate long-duration operation lasting for 20 seconds.

Clients start three threads. Each thread invokes the server's business object.

If you use framework 1.0, you will see that asynchronous invocations actually are performed sequentially and the overall time is 1 minute (every invocation takes 20 seconds).

If you use framework 1.1, you will see that every asynchronous invocation causes a separate TCP connection to be opened. The overall time is 20 seconds.

Issue

Use a timer to understand how much time it takes to complete all invocations.

Type in command line "*netstat -a*" and press **ENTER** to see a quantity of the opened connections to the port 8737.

GTCP Sample

Installation

The sample was written in Visual Studio 2002.
You need to unpack the provided archive and open the *GTCP 1.0 > Project.sln* solution file. Then rebuild the solution.
Press **F5** to run both client and server in Visual Studio.

Configuration

Server IP address is specified in the *Client > App.config* file. You can directly modify *Client > Bin > Debug > Client.exe.config* if you need to change the IP address without recompiling the solution.

Design

Known layer contains only the declaration of the operation interface.

Server provides a business object bound to the known URI. Server performs *Thread.Sleep* operation to simulate long-duration operation lasting for 20 seconds.

Clients start three threads. Every thread invokes the server's business object. The overall time is 20 seconds. Client always opens exactly one TCP connection.

The behavior does not depend on the version of framework.

Issue

Use a timer to understand how much time it takes to complete all invocations.

Type in command line "*netstat -a*" and press **ENTER** to see a quantity of the opened connections to the port 8737.