**Brief introduction of SocketPro continuous SQL-stream sending and processing system (Part 1: Sqlite)**

**Introduction**

Most of client server database systems only support synchronous communication between client and backend database by use of blocking socket and some chatty protocols that requires a client or server to wait for an acknowledgement before sending a new chunk of data. The wait time, which is also called as latency, could be starting from a few tenth for a local area network (LAN) to hundreds of milliseconds for a wide area network (WAN). Large wait times can significantly degrade the quality of an application.

Fortunately, UDAParts has developed a powerful and secure communication framework named as SocketPro, which is written with continuous inline request/result batching and real-time stream processing capabilities by use of asynchronous data transferring and parallel computation for the best network efficiency, development simplicity, performance, scalability, and many great and even unique features at the site (<https://github.com/udaparts/socketpro>).

Further, UDAParts has applied the powerful SocketPro framework onto popular opened source databases such as Sqlite and MySQL as well as others through ODBC drivers to support continuous SQL-stream sending and processing. At the last, these components for databases are **totally free forever** to the public.

For reduction of learning complexity, we use Sqlite database as the first sample for the first article, and MySQL as the second sample for the coming second article.

**Source codes and samples**

All related source codes and samples are located at <https://github.com/udaparts/socketpro>. After cloning it into your computer by GIT, pay attention to the subdirectory usqlite inside the directory socketpro/samples/module\_sample.

You can see these samples are created from .NET, C/C++, Java and Python development environments. They can be compiled and run on either Linux or windows platforms. In case you are not used to C/C++ development, UDAParts also distributes pre-compiled test applications, test\_ssqlite for server and test\_csqlite for client inside the directory socketpro/bin/(win|linux) because these test applications are written from C/C++. In addition, you can figure out how to load a SocketPro service into a server application with your familiar development environment by looking at tutorial sample all\_servers at the directory socketpro/tutorials/(cplusplus|csharp|vbnet|java/src)/all\_servers. However, we only use C# code at this article for explanations.

In regards to SocketPro communication framework, you may also refer to its development guide documentation at socketpro/doc/**SocketPro development guide.pdf.**