Subject: "Raw" thread support
Posted by mirek on Sun, 08 Apr 2012 17:21:01 GMT
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Primary motivation for this feature was creation of asynchronous DNS resolver IpAddrInfo.

The problem is that there are no easy to use nonblocking APIs for DNS, getaddrinfo is blocking.

The easiest solution to the situation is to use separate thread to perform blocking call. Anyway, I want still to keep single-threaded mode, because some code can run 5-15% faster if compiled single-threaded. This is because in single-threaded mode, most synchronization routines are just NOPs.

Anyway, that does not preclude to have auxiliary threads in single-threaded, if some rules are followed. Basically, if nothing related to U++ heap is used, it should be OK.

It is also worth to encapsulate two basic MT features, StartRawThread and RawMutex, to avoid platform differences. StartRawThread and RawMutex thus exist and work even in single-threaded mode...

To see more details, examine IpAddrInfo.