Subject: Re: cmdsrv does not work

Posted by rylek on Thu, 04 Jun 2009 08:00:08 GMT

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Hello Raul!

Nice to meet you too, the pleasure is mine. I'm glad you've nailed the cause of the trouble, I know perfectly what you mean by "many folders and parallel U++ installations".

As concerns server throughput and possible parallelization, I simply don't know. I didn't write Google, if you know what I mean. The primary orientation at single-threaded solutions possibly with minor throughput enhancements like the delayed write cache was to a substantial extent caused by the fact that at the time of original coding of the HttpServer the multithreading support in U++ was still very rudimentary (politely speaking).

As you surely know by yourself, there are soooo many silly quirks to watch out for when coding in parallel, that [at least at an initial stage of a project] I would surely recommend to avoid multithreading unless absolutely necessary. Of course this depends on the kind of application you're writing. In case of heavy database transactions or waits on third-party web sources to complete your request, of course it would be silly to let a user wait for two minutes just to receive a two kilobyte welcome screen. (Not mentioning the browser would have timed out long before receiving the data.)

However there are also limits on the bandwidth of the outgoing network lines, even on the sockets themselves (as Mirek noted some time ago, if you refuse to suppress the recommended 30 second socket 'cooling' period after use, with 64K sockets available you are limited to about 2 requests per millisecond in any case), so it would be just as silly to spend a fortnight devising a super-smart super-parallel algorithm responding in a few microseconds, for instance.

Also please remember that web servers are tricky beasts by nature. In contrast with ordinary desktop applications which can often live even with certain more benign forms of leaks like missing internal cleanups, and whose crashes can be quite often well localized and simulated later on in a debugging environment, with a server running for a long period of time, perhaps at a remote hosting site, the situation is much more complicated. Very often all you can do is to rely on various log files and crash files, and retracing the exact sequence of events which led to the failure is usually out of question.

In any case, from the point of view of U++, I believe the HttpServer object as such should be more or less adaptable to a multithreaded scheme with working threads handling the individual requests (represented by the HttpRequest object). If you decide to go this way, I'll be glad to hear from you concerning your experiences and perhaps improve the server object if it turns up that its current implementation is not usable in this way.

Tomas