
Subject: [Solved]XML Rpc client will halt when server is not running

Posted by [kasome](#) on Wed, 20 Jun 2012 10:58:23 GMT

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The following code will halt when XML RPC Server is not running.

```
#include <Core/Core.h>
#include <Core/XMLRpc/XMLRpc.h>

using namespace Upp;

namespace Upp {
extern bool HttpRequest_Trace__;
}

int main() {
#ifdef flagDEBUG
// LogXmlRpcRequests();
// HttpRequest_Trace__ = true;
StdLogSetup( LOG_COUT | LOG_FILE );
#endif

Time serverTime;
SetDateFormat( "%4d-%02d-%02d" );
XmlRpcRequest call( "127.0.0.1:1234" );
if( call("GetServerTime") >> serverTime ) {
LOG( "Server Time =" + Upp::AsString(serverTime) );
}
else {
LOG( Upp::Format("Error: %s", call.GetError()) );
}

return 0;
}
```

I try to trace the code, the problem seems to happen in the red block. (In upp\uppsrc\Core\Socket.cpp)

```
int TcpSocket::Put(const char *s, int length)
{
LLOG("Put " << socket << ": " << length);
ASSERT(IsOpen());
if(length < 0 && s)
length = (int)strlen(s);
if(!s || length <= 0 || IsError() || IsAbort())
```

```

return 0;
done = 0;
bool peek = false;
int end_time = GetEndTime();

while(done < length) {
    if(peek && !Wait(WAIT_WRITE, end_time))
        return done;
    peek = false;
    int count = Send(s + done, length - done);
    if(IsError() || timeout == 0 && count == 0 && peek)
        return done;
    if(count > 0)
        done += count;
    else
        peek = true;
}

LLOG("//Put() -> " << done);
return done;
}

```

I modify the code from (In upp\uppsrc\Core\Socket.cpp)

```

bool TcpSocket::WouldBlock()
{
    int c = GetErrorCode();
#ifdef PLATFORM_POSIX
    return c == SOCKERR(EWOULDBLOCK) || c == SOCKERR(EAGAIN);
#endif
#ifdef PLATFORM_WIN32
    return c == SOCKERR(EWOULDBLOCK) || c == SOCKERR(ENOTCONN);
#endif
}

```

to

```

bool TcpSocket::WouldBlock()
{
    int c = GetErrorCode();
#ifdef PLATFORM_POSIX
    return c == SOCKERR(EWOULDBLOCK) || c == SOCKERR(EAGAIN);
#endif
}

```

```
#ifdef PLATFORM_WIN32
return c == SOCKERR(EWOULDBLOCK) || c != SOCKERR(ENOTCONN);
#endif
}
```

I hope that will fix the problem.

Subject: Re: XML Rpc client will halt when server is not running
Posted by [kasome](#) on Thu, 21 Jun 2012 03:21:31 GMT
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Here is full XML RPC Server & Client Code

Server:

```
#include <conio.h>
#include <Core/Core.h>
#include <Core/XMLRpc/XMLRpc.h>

using namespace Upp;

XMLRPC_METHOD( Compute ) {
double a, b;
Upp::String arithmeticOperator;
rpc >> a >> arithmeticOperator >> b;
LOG( Upp::Format("Request: %nf %s %nf", a, arithmeticOperator, b) );

if( arithmeticOperator.GetCount() == 1 ) {
switch( *arithmeticOperator ) {
case '+': {
rpc << a + b;
break;
}
case '-': {
rpc << a - b;
break;
}
case '/': {
if( b == 0 ) {
rpc << Upp::ErrorValue("division by zero");
}
else {
rpc << a / b;
}
break;
}
}
```

```

    case '*': {
        rpc << a * b;
        break;
    }
}
else {
    rpc << Upp::ErrorValue("unknown operator");
}
}

```

```

XMLRPC_METHOD( GetServerTime ) {
    LOG( "Request: GetServerTime" );
    rpc << Upp::GetSysTime();
}

```

```

int main() {
    TcpSocket rpc;
    int port = 1234;

    if( !rpc.Listen(port,5) ) {
        return false;
    }

```

```

while( true ) {
    if( _kbhit() ) {
        if( _getch() == 27 ){
            break;
        }
    }
}

```

```

    TcpSocket http;
    http.Timeout(1000);
    if( http.Accept(rpc) ) {
        XmlRpcPerform(http,NULL);
    }
}

```

```

return 0;
}

```

Client:

```

#include <Core/Core.h>
#include <Core/XMLRpc/XMLRpc.h>

```

```

using namespace Upp;

namespace Upp {
extern bool HttpRequest_Trace__;
}

void Compute( double a, Upp::String arithmeticOperator, double b );

int main() {
Time serverTime;
SetDateFormat( "%4d-%02d-%02d" );
XmlRpcRequest call( "127.0.0.1:1234" );
if( call("GetServerTime") >> serverTime ) {
LOG( "Server Time = " << serverTime );
}
else {
LOG( Upp::Format("Error: %s", call.GetError()) );
}

Compute( 12, "+", 12 );
Compute( 12, "*", 12 );
Compute( 12, "+56", 12 );
Compute( 12, "/", 0 );

return 0;
}

void Compute( double a, Upp::String arithmeticOperator, double b ) {
double result = 0;
XmlRpcRequest call( "127.0.0.1:1234" );
if( call("Compute", a, arithmeticOperator, b) >> result ) {
LOG( Upp::Format("%f %s %f = %f", a, arithmeticOperator, b, result) );
}
else {
LOG( Upp::Format("Error: %s", call.GetError()) );
}
}

```

Subject: Re: XML Rpc client will halt when server is not running
Posted by [mirek](#) on Thu, 21 Jun 2012 07:09:48 GMT
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This is wrong solution. Win32 regulary returns WSAENOTCONN when connection is in progress.

I guess the real problem is that we are here simulating blocking sockets using non-blocking behaviour. Win32 seems to give up connect in blocking mode after 21 seconds. So the correct

solution is perhaps to simulate this special timeout as well - done, please check.

(You can also decrease the timeout using Timeout).

Mirek

Subject: Re: XML Rpc client will halt when server is not running

Posted by [kasome](#) on Thu, 21 Jun 2012 15:16:57 GMT

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i try the latest u++ r5074, and it works well now, not halt anymore.

but i still can't use Timeout nor RequestTimeout, i.e.

```
XmlRpcRequest call( "127.0.0.1:1234" );  
call.Timeout(1000); // VS2005 compile error  
call.RequestTimeout(1000); // VS2005 compile error
```

because XmlRpcRequest is private inheritance from HttpRequest,

how about change

```
class XmlRpcReques : HttpRequest
```

to

```
class XmlRpcReques : public HttpRequest ?
```

and thanks.
