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Subject: Re: Program didn't exit in Task Manager after click [X]

Posted by [Oblivion](#) on Sun, 08 Nov 2020 12:03:28 GMT

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Hello peterh,

Just to clarify TcpSocket behaviour and its relation to Upp::Null:

Upp::TcpSocket uses a "pseudo-blocking" mechanism.

This means, the platform specific, underlying socket is always in non-blocking mode.

This is by design. From the user's POV, this allow us to use the TcpSocket in blocking, non-blocking, or in a time-constrained mode, easily, depending on our specific use-case.

Enter "Null" value.

Upp::Null, as you've noticed, is a Upp-specific value. It is already defined for int, int64, double and bool types (and can be used with other types that define a Nuller). So you should make no assumptions about it.

Null / 100000 can semantically be considered an "undefined behaviour", because we are trying to divide something that doesn't exist.

Hence, timeout = Null, means that there is no timeout.

```
int  foo1 = Null; // Ok
int64 foo2 = (int) Null; // Not OK! This can be considered a user error.
int64 foo3 = Null; // OK.
```

Null, assigned to timeout (int), in this context, is used to put the TcpSocket in blocking mode.

OTOH, "0" (int) is used to put the TcpSocket into non-blocking mode.

timeout > 0 && timeout <= INT\_MAX is a time-constraint (in milliseconds) for a given TcpSocket operation.

Best regards,

Oblivion

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