

Docklight Application Note: TCP Monitoring

1 Monitoring a single client/server TCP connection

Many products in industry automation that were equipped with RS232 or RS422/485 interfaces, are nowadays accessible through an Ethernet connector and TCP/IP protocol. One common approach for adding network connectivity to a product is to equip it with an embedded Serial Device Server. It acts as a TCP server on the Ethernet side, and translates incoming TCP data to serial data and vice versa.

In contrast to web and multimedia applications with high demands on bandwidth, the data rates for such "ex RS232" serial connections remains low. Client applications will also just open one single connection to one specific TCP port number, instead of establishing multiple connections at the same time.

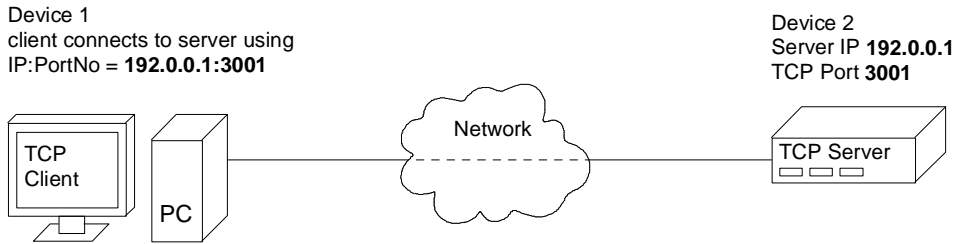


Figure 1: Simple TCP point-to-point connection between a client and a server

Still, debugging such network applications can be a complicated and time-consuming task. Dedicated TCP/IP testing tools are required, which are many times difficult to use and oversized for simple industry application protocols like MODBUS/TCP.

Docklight Scripting allows you to monitor and debug a TCP-based application with the same ease as when using RS232 ports and cables. Instead of using a Docklight Monitoring Cable between the two devices being tested, you can run Docklight Scripting within the network and simply have the client (Device 1) connect to Docklight Scripting instead of the network-enabled product (Device 2).

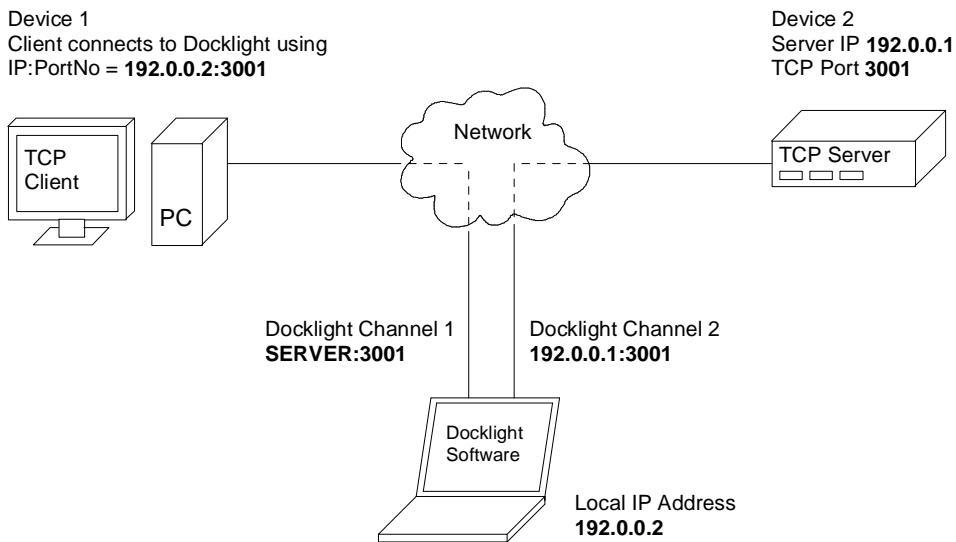


Figure 2: Using Docklight Scripting as a bridge between client and server, monitoring all communication data

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| | | | | Date | 2008-06-18 | Docklight Application Note: TCP Monitoring Applies to: Docklight Scripting V1.7 / V1.8 |
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| V1.1 | Minor correct. | 2008-06-18 | He | | | Docklight Application Note Page 1 / 1 |
| V1.0 | First release | 2007-04-18 | He | | | |
| V0.4 | draft | 2007-02-23 | He | | | |
| Ver. | Comment | Date | Name | | | |