Docklight

Docklight is a testing, analysis and simulation tool for serial communication protocols (RS232, RS485/422 and others). It allows you to monitor communications between two serial devices or to test the serial communication of a single device. Docklight is easy to use and works on almost any standard PC running *Windows 10, Windows 8 or Windows 7*.

Docklight's key functions include

• **simulating serial protocols** - Docklight can send out user-defined sequences according to the protocol used and it can react to incoming sequences. This makes it possible to simulate the behavior of a serial communication device, which is particularly useful for generating test conditions that are hard to reproduce with the original device (e.g. problem conditions).

• **logging RS232 data** - All serial communication data can be logged using two different file formats. Use plain text format for fast logging and storing huge amounts of data. An HTML file format, with styled text, lets you easily distinguish between incoming and outgoing data or additional information. Docklight can also log any binary data stream including ASCII 0 <NUL> bytes and other control characters.

• **detecting specific data sequences** - In many test cases you will need to check for a specific sequence within the RS232 data that indicates a problem condition. Docklight manages a list of such data sequences for you and is able to perform user-defined actions after detecting a sequence, e.g. taking a snapshot of all communication data before and after the error message was received.

• **responding to incoming data** - Docklight lets you specify user-defined answers to the different communication sequences received. This allows you to build a basic simulator for your serial device within a few minutes. It can also help you to trace a certain error by sending out a diagnostics command after receiving the error message.

Docklight will work with the COM communication ports provided by your operating system. Physically, these ports will be RS232 SUB D9 interfaces in many cases. However, it is also possible to use Docklight for other communication standards such as RS485 and RS422, which have a different electrical design to RS232 but follow the RS232 communication mechanism.

Docklight has also been successfully tested with many popular USB-to-Serial converters, Bluetooth serial ports, GPS receivers, virtual null modems, Arduino, MicroPython/pyboard or other Embedded Development environments that add a COM port in Windows.

For RS232 full-duplex monitoring applications, we recommend our Docklight Tap USB accessory, or our Docklight Monitoring Cable.

This manual only refers to RS232 serial connections in detail, since this is the basis for other serial connections mentioned above.

TIP: For getting started, have a look at the Docklight sample projects, which demonstrate some of the basic Docklight functions