


MB-Tester

Multi-Bus Tester

Multi Bus Tester - Demo Guide

Release 0.2.3

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CONTENTS

1	Overview	1
2	Installation	2
2.1	Requirements	2
2.2	MB-Tester Python Package	2
2.3	Tools for Examples	2
2.3.1	Virtual Null Modem	2
2.3.2	Microsoft Visual 2010 Package	4
2.3.3	Modbus Slave	4
3	Examples	6
3.1	MP-Bus	6
3.2	Belimo NFC Protocol (BNPV4)	7
3.3	NFC	7
3.4	Modbus	8

OVERVIEW

This demo package contains the MB-Tester python package and several examples for each bus communication.

INSTALLATION

2.1 Requirements

Operating System: Windows 10

Architecture: x64

Python: 3.8+ or newer

2.2 MB-Tester Python Package

To install the MB-Tester python package in the default python environment execute package/Install.bat. If you prefer to use a different python environment, please install the package/mb_tester*.whl file manually with the appropriate pip command.

The user documentation is included in the 'whl' package file, so it can be extracted directly from it, or after installation in the python environment directory under the MultiBusTester directory.

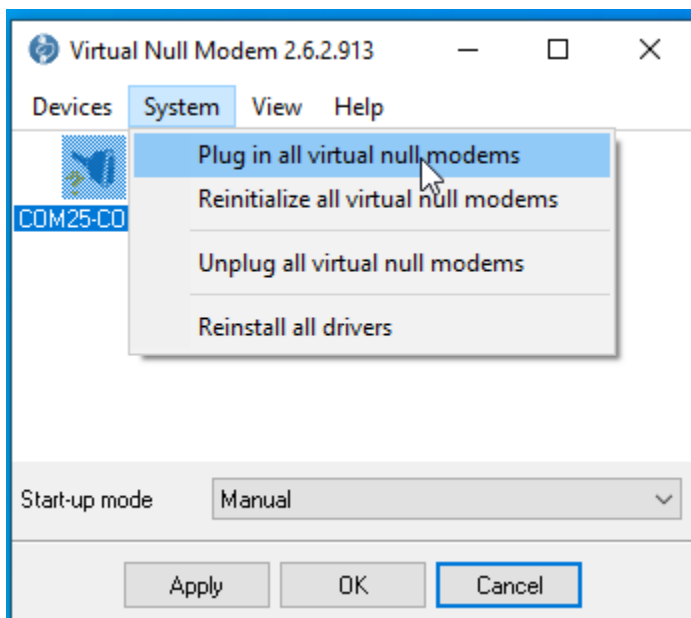
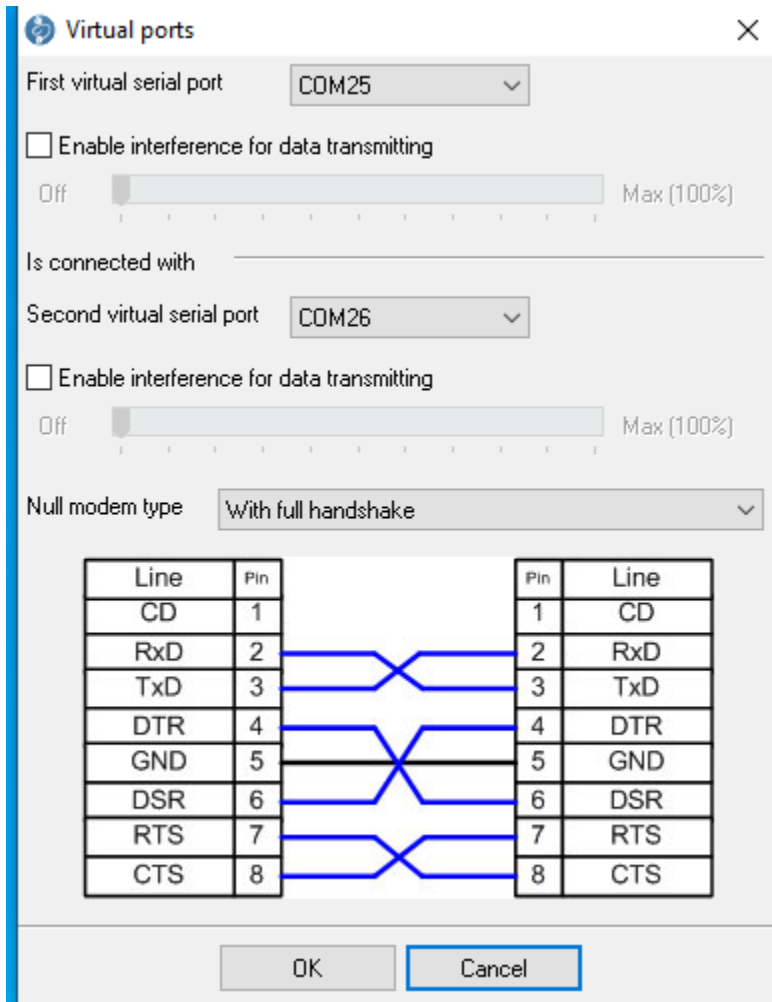
2.3 Tools for Examples

2.3.1 Virtual Null Modem

Some examples use the MP-Simulator on the same PC as a virtual MP Slave to show the capabilities of the MB Tester. This needs a virtual COM port pair to connect the MP simulator with the MB Tester. You can use Virtual Null Modem or another similar SW for this purpose.


Download Virtual Null Modem from the [link](#) or use the installer 'installers/vnullmod20.exe'.

Setup the Virtual Null Modem and Connect the virtual serial link between the COM25 and COM26




2.3.2 Microsoft Visual 2010 Package

The **Microsoft Visual C++ 2010 Redistributable Package** package is needed for the MP-Simulator. You can use the installer 'installers/vcredist_x86.exe' or download the x86 installer from the internet.

  <https://www.microsoft.com/en-us/download/details.aspx?id=26999>

Choose the download you want

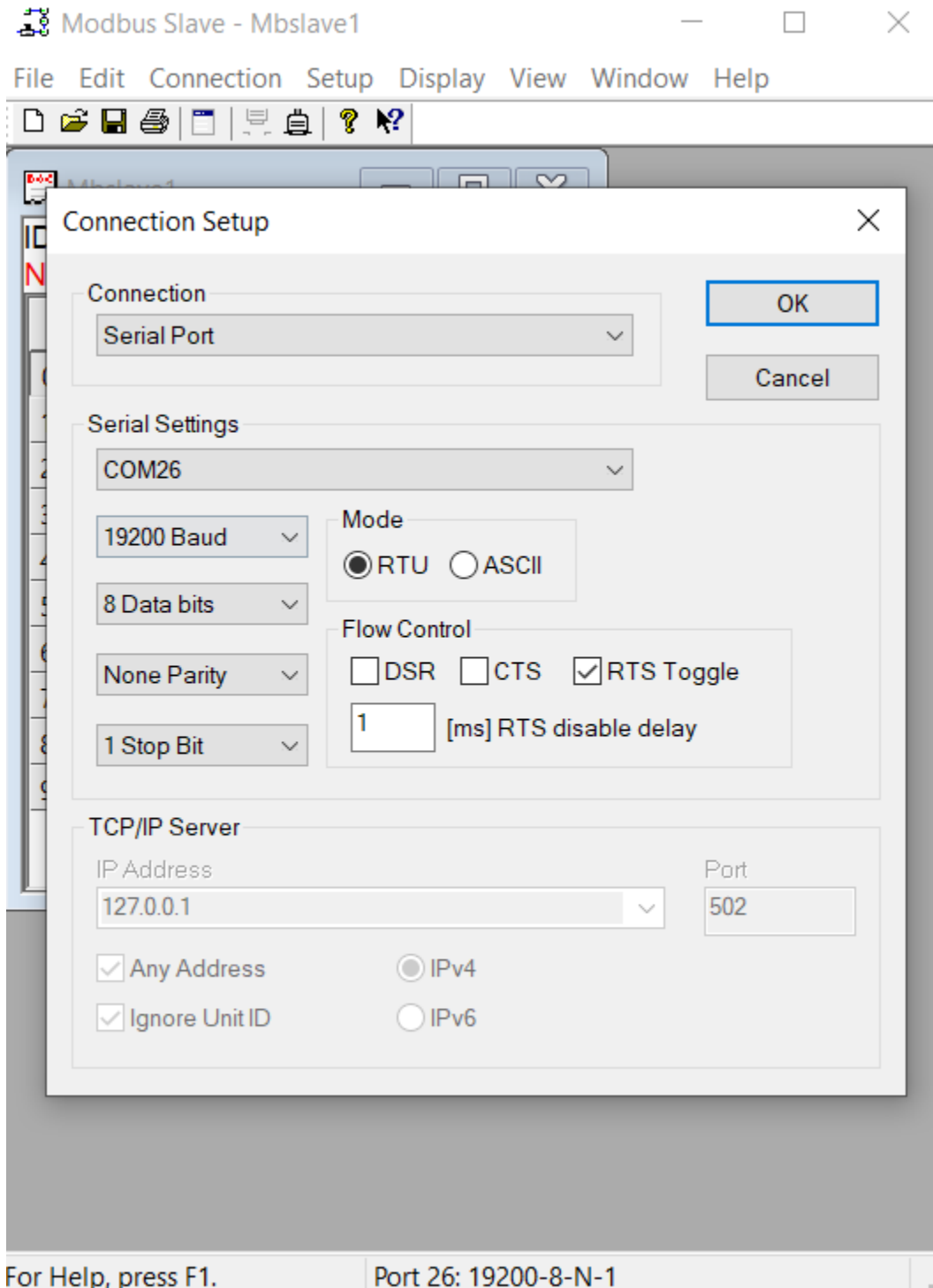
<input type="checkbox"/> File Name	Size
<input checked="" type="checkbox"/>  vcredist_x86.exe	8.6 MB
<input type="checkbox"/> vcredist_ia64.exe	2.9 MB

2.3.3 Modbus Slave

A modbus slave software is used as a virtual modbus slave to demonstrate the capabilities of the MB Tester. This virtual modbus slave will be connected via a virtual COM port to the MB Tester.

Download from this [link](#) or use the installer 'installers/ModbusSlaveSetup64Bit.exe'.

Setup for the modbus test



EXAMPLES

Here is a short description of how each example is set up and how it works. The installation steps documented in the chapter Installation are required to execute the example scripts.

Log messages

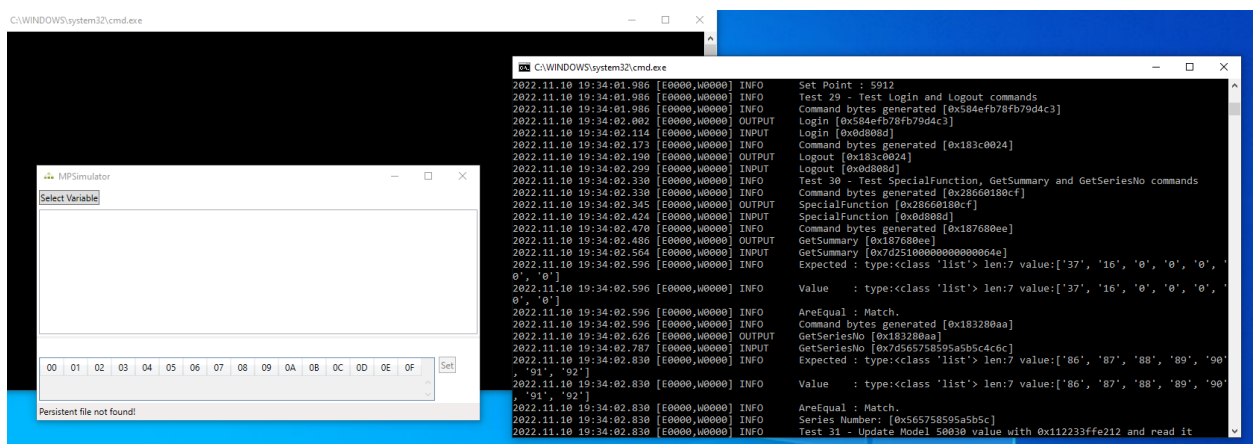
All the log files will be stored in the 'Log' subdirectory.

Run example scripts

The examples folder contains the demo scripts in the corresponding subfolders. Start the 'Run.bat' script in the corresponding subfolder to run the example. Depending on the example some additional preparations will be needed, see the descriptions below.

3.1 MP-Bus

Demo script for testing MP slave devices.



Set Up the Connection

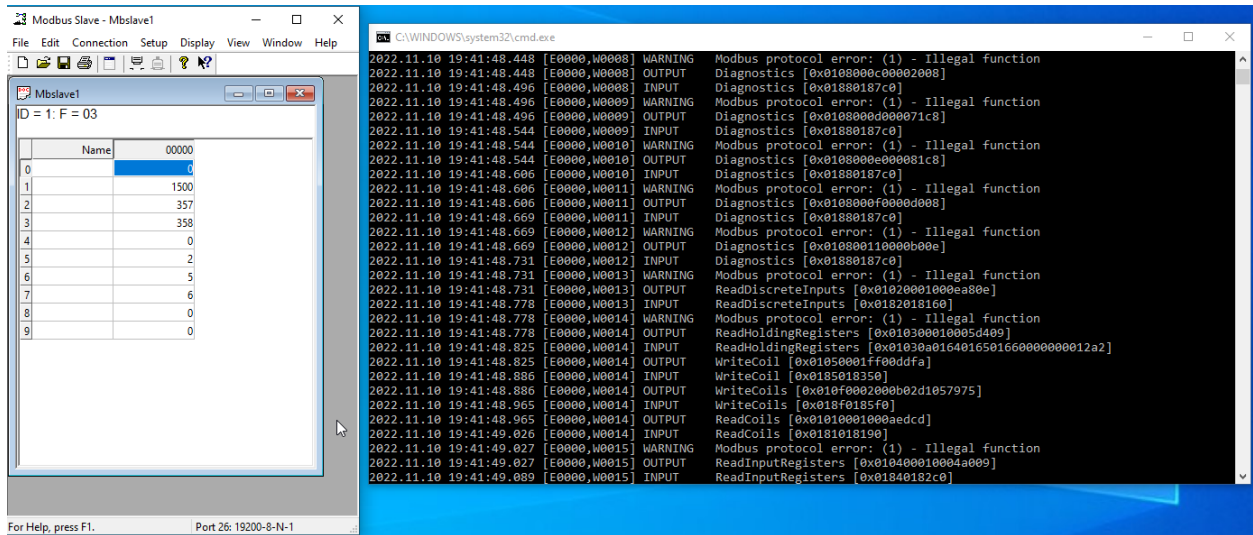
The user has to connect two COM ports of the computer to enable the MPSimulator and MBTester to communicate. This can be done for example by connecting two ZIP-USB-MP modules or with a virtual COM port simulator (for example *Virtual Null Modem*)

Set Up the MPSimulator

Before running the script using Run.bat, the user must start the MPSimulator by opening the 'Simulator' folder and running 'StartSimulator.bat'. The script can be modified, for example to change the COM port used. The default port for MPSimulator is COM26.

3.4 Modbus

Demo script for testing Modbus slave devices.



Set up the Modbus simulator

Before running the scrip, the Modbus Slave simulator must be installed and started. The test uses the COM ports 25 and 26 by default, which can be changed in the corresponding scripts.