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## APPLICATION NOTE No. 007

**Store and barcode ID data from multiple sensors on a Modbus RS485 line**

**Ver. 1.1**

**April 2012**

**Total: 2 page(s)**

### Description

The NetCube queries at varying intervals several sensors connected on a RS485 line using Modbus/RTU protocol. The customer can specify on a web page which addresses and what values have to be queried. He can also specify the waiting time between 2 consecutive queries.

The results are stored in a log file. This log file is sent once a day to a remote server via FTP. Alternatively the log file could have been sent by e-mail or by SMB/CIFS (protocol used to get access to Windows shares). Optionally the file can be downloaded at any time via the NetCube integrated web server.

Additionally a barcode reader connected on NetCube COM1 identifies the type of data of each sensor. Each string read by the barcode is then associated in the log file with the data of relevant sensor.

Finally the query operation itself is controlled by a switch connected to a NetCube digital input. If the switch is on, then querying is done and values are logged, otherwise nothing happens. While the switch is off, the customer can use the NetCube COM port redirector function to remotely connect into the RS485 line and update the settings of some sensors if needed.

### Logical behaviour (pseudo-code)

```

Loop
  If logging disabled
    Sleep 1 second
    Restart loop
  End if
  If data available on COM1
    Read the data
    Remember the string
  End if
  For each sensor
    If enough time elapsed since last query
      Query sensor
      Open log file
      Store values of sensors together with last barcode value
      Close log file
    End if
  End for
End loop

```

## Overview of the installation

