

# Telit Serial Port MUX

PC Interface for managing CMUX data  
Rev. 1 2009-10-15



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## 1. Introduction

### 1.1. Contact Information, Support

For general contact, technical support, to report documentation errors and to order manuals, contact Telit's Technical Support Center (TTSC) at:

[TS-EMEA@telit.com](mailto:TS-EMEA@telit.com)

[TS-NORTHAMERICA@telit.com](mailto:TS-NORTHAMERICA@telit.com)

[TS-LATINAMERICA@telit.com](mailto:TS-LATINAMERICA@telit.com)

[TS-APAC@telit.com](mailto:TS-APAC@telit.com)

Alternatively, use:

<http://www.telit.com/en/products/technical-support-center/contact.php>

For detailed information about where you can buy the Telit modules or for recommendations on accessories and components visit:

<http://www.telit.com>

To register for product news and announcements or for product questions contact Telit's Technical Support Center (TTSC).

Our aim is to make this guide as helpful as possible. Keep us informed of your comments and suggestions for improvements.

Telit appreciates feedback from the users of our information.

### 1.2. Text Conventions



***Danger – This information MUST be followed or catastrophic equipment failure or bodily injury may occur.***



***Caution or Warning – Alerts the user to important points about integrating the module, if these points are not followed, the module and end user equipment may fail or malfunction.***



**Tip or Information – Provides advice and suggestions that may be useful when integrating the module.**

All dates are in ISO 8601 format, i.e. YYYY-MM-DD.

### 1.3. Document History

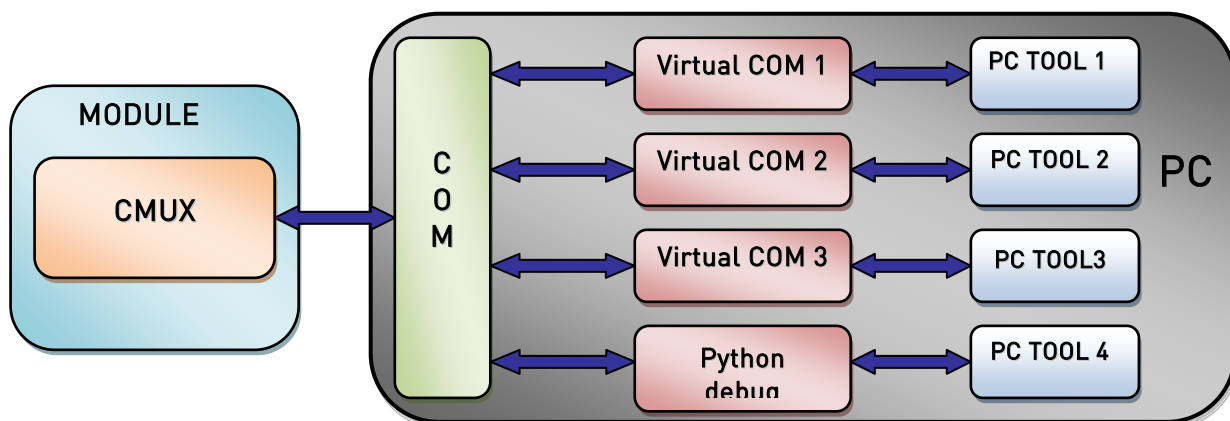
Revision	Date	Changes
0	2007-08-30	First issue
1	2009-10-15	Added Notice



## 2. Interface Specification

To exploit the capabilities of CMUX, Telit developed a tool called Telit Serial Port MUX. It is a PC interface able to manage data coming/to be sent to/from CMUX. This target is achieved creating up to four serial virtual ports on the PC and using a specific communication protocol to manage the communication between the real serial COM, changing data with CMUX, and each of the virtual port.

### 2.1. Scenario



As you can see, you can run 3 different applications using the same CMUX module, for example 3 HyperTerminal sending commands at the same time to the same module.



## 2.2. Graphical Interface



### NOTICE:

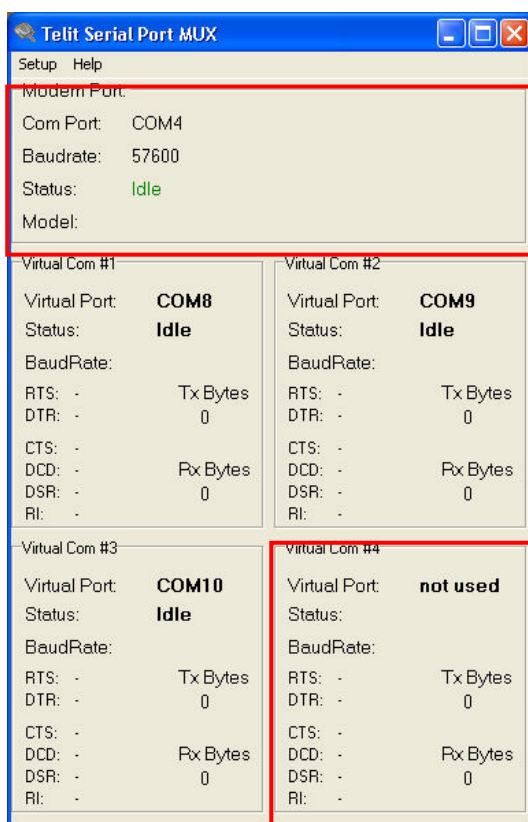
Windows Vista users have to disable DEP (Data Execution Prevention) in order to install this software, in the following way:

Click on Start->Programs->Accessories and with the right key on "Command prompt" click on "Run as administrator". Now write the following string at the prompt:

```
"bcdedit /set {current} nx AlwaysOff"
```

And press enter. Now restart the PC.

Telit Serial Port Mux application on your PC after installation looks like in the following figure:



#### Modem Port Panel:

- Real port (COM) used to communicate with PC
- Speed (Baud rate)
- Status
- Model

#### Virtual Port Panel:

- Virtual port number
- Status
- Baud Rate
- Bytes Transmitted\Received
- RTS: Request to send
- DTR: Data Terminal Ready
- CTS: Clear To Send
- DCD: Data Carrier Detect
- DSR: Data Set Ready
- RI: Ring Indicator








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Tray icon: when Telit Serial Port Mux is working, there is a Tray Icon Showing the state of the connection

- **Modem Port Panel:** here you can find the information about the modem connected to your PC, like:
  1. COM on your PC used to transfer data, selected during the initial setup or selecting the Setup voice in the application menu.
  2. COM Speed selected.
  3. Connection Status: it can be "idle" or "error" when CMUX is disconnected, "connecting" when PC is trying to connect to CMUX and "connected" when CMUX is connected successfully.
  4. Indication about the model of the modem connected.
- **Virtual Port Panel:** here you can find all the information about the connection using a Virtual Com installed on your PC:
  1. Virtual Com number.
  2. Virtual Port Status: it can be "idle", "idle no DCD", "Error", "Opened".
  3. Baud Rate.
  4. Number of bytes received and transmitted [RX Bytes, TX Bytes].
  5. All the common serial port signals like RequestToSend, DataTerminalReady, ClearToSend, DataCarrierDetected, DataSetReady and RingIndicator.
- **Tray Icon:** there is a Tray Icon indicating the status of the Serial Port Mux:

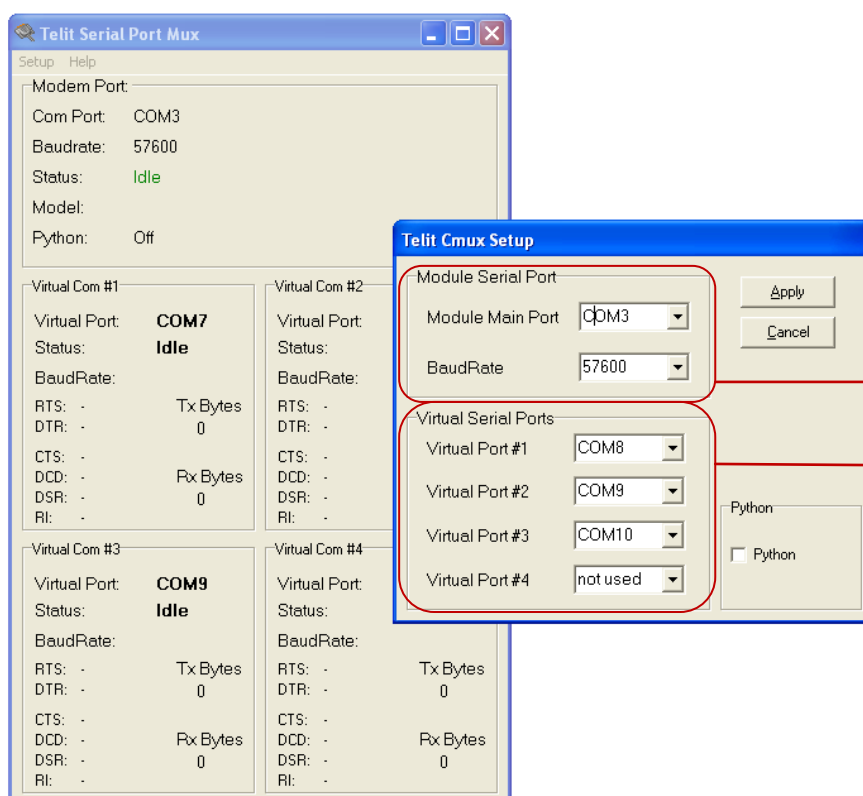


1.  CMUX connected: the Tray Icon is blinking.
2.  CMUX disconnected or connecting.
3.  CMUX error.



## 2.3. Application Setup

The selection of the number of Virtual ports to be created, like the selection of the real COM to be used and its speed is made in the setup section. There are two possibilities to do this, during the tool installation and when the tool is running.



The screenshot shows the 'Telit Serial Port Mux' application window with the 'Setup' tab selected. It displays settings for the 'Modem Port' (COM3, 57600 baudrate, Idle status) and four 'Virtual Com' ports (COM7, COM9, etc.). Overlaid on this is the 'Telit Cmux Setup' dialog box. This dialog has two main sections: 'Module Serial Port' and 'Virtual Serial Ports'. The 'Module Serial Port' section contains a 'Module Main Port' dropdown set to 'COM3' and a 'BaudRate' dropdown set to '57600'. The 'Virtual Serial Ports' section contains four dropdowns for 'Virtual Port #1' through '#4', with values 'COM8', 'COM9', 'COM10', and 'not used' respectively. Red arrows point from these sections to explanatory text boxes on the right.

**Module Serial Port Panel:** here you can select the Real COM to use and its speed

**Virtual Serial Port Panel:** here you can create virtual ports





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