How to debug a HTTP POST request

In some applications the System-on-Module eSOM/9263 acts as a HTTP-based data source. In this case the eSOM/9263 captures data from external devices over a UART, CAN, SPI, or I2C interface and transfers these data with a HTTP POST request to an external web server or a cloud-based web service.

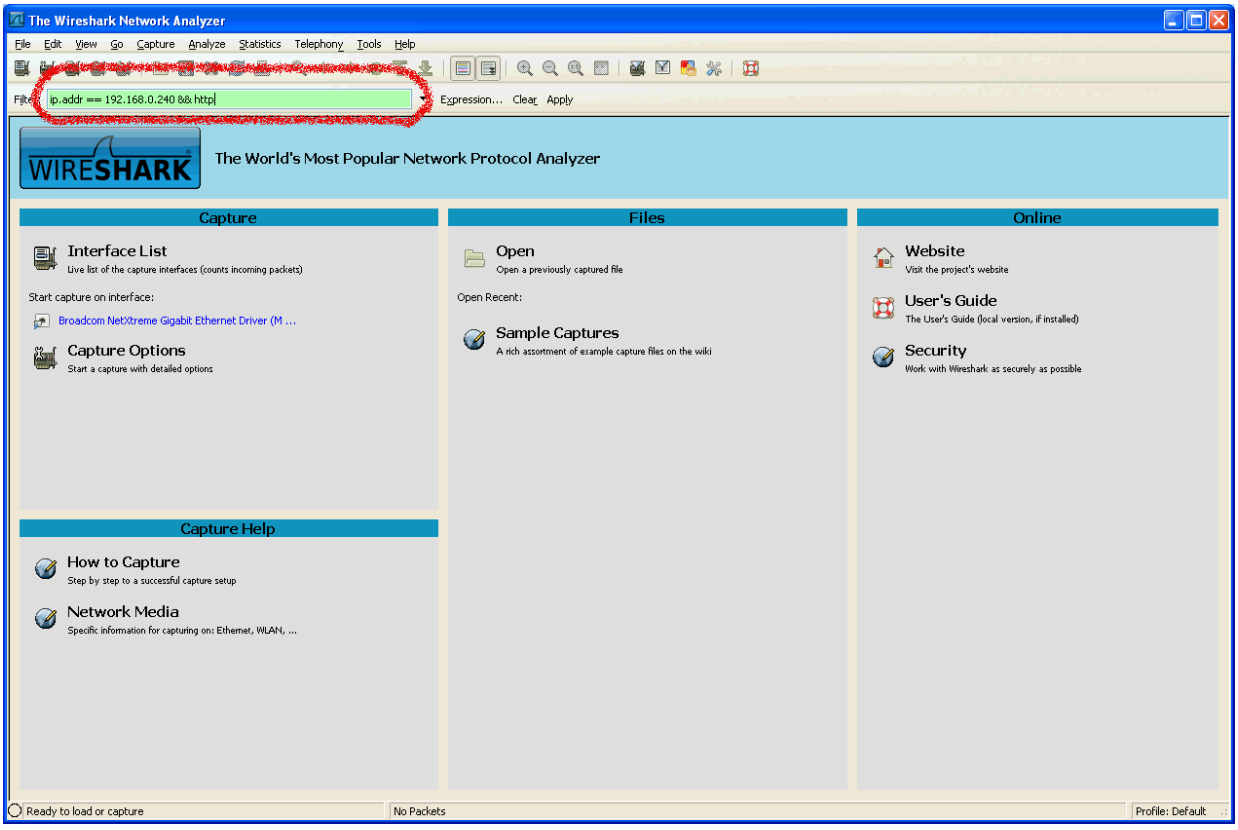
Under some debugging circumstances it can be necessary to visualize the data fields of the HTTP POST request which goes from the eSOM/9263 Ethernet LAN interface to the external web server or the cloud-based web service.

- **1. Step**: Make sure that your PC runs a HTTP server (e.g. *Apache* form the Apache Software Foundation, please see http://www.apache.org/). Then change the IP address of the eSOM/9263 HTTP POST requester software to the IP address of your PC.

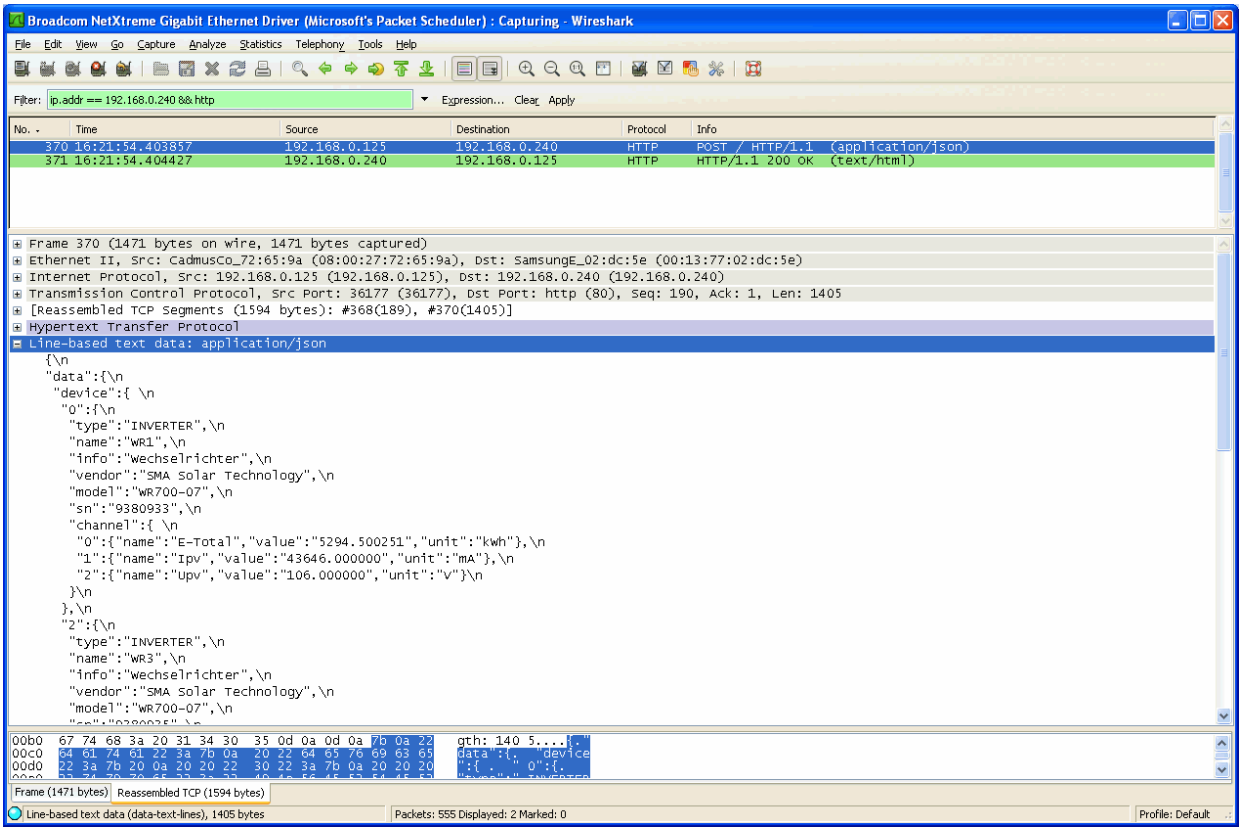
- **2. Step**: Run the *Wireshark* network protocol analyzer on your PC system. Then enter the following filter rule

  ```
  ip.addr == 192.168.0.240 && http
  ```

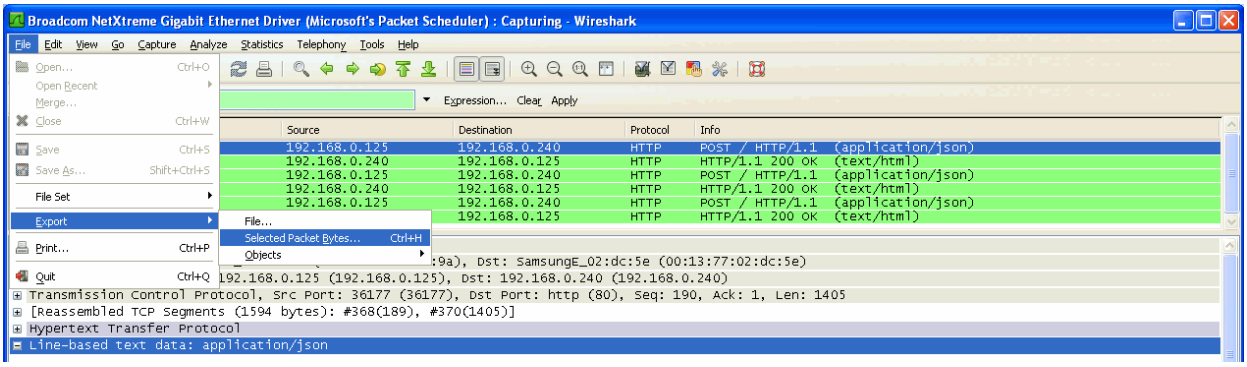
  to the *Wireshark* filter bar (192.168.0.240 is in this sample the IP address of the PC – replace this address with the IP address of your PC). The filter bar allows you to enter a filter string that restricts which packets are displayed in the *Wireshark* summary window.



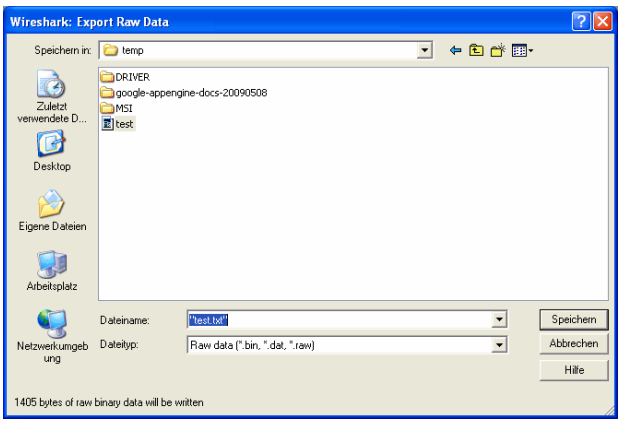
- **3. Step**: Activate the *Wireshark* capture mode and capture some eSOM/9263 HTTP POST request packets. Then stop the capture mode.



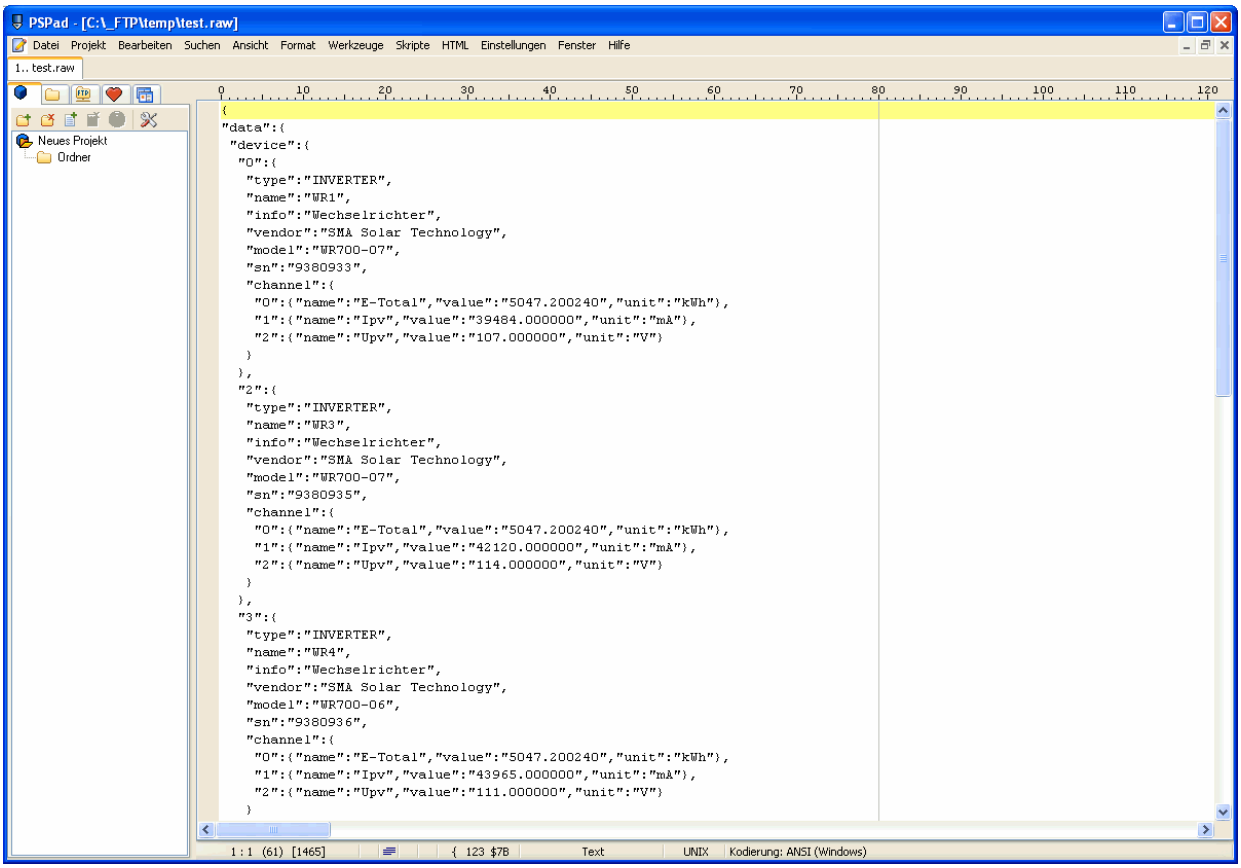
- **4. Step:** Select in the summary window one packet with a eSOM/9263 HTTP POST request. Then use the *Wireshark* menu item *File => Export => Selected Packet Bytes.*



- **5. Step:** Save the HTTP request data to an external file (*Wireshark Export Raw Data*).



- **6. Step:** View the new data file. If the file contains plain text the *Wireshark* export data file can be viewed with any text editor. Otherwise use an editor with hex output (e. g. *PSPad Hex*).



Please note: In this sample the eSOM/9263 HTTP POST request contains JSON-based data of a photovoltaic system.

That's all.