# Instrument Security Procedures

## Model:

Fluke 1760

## Product Name:

Fluke 1760 Power Quality Recorder

## Instrument Description:

Three-Phase Power Quality Recorder Topas

## Memory Description:

The 1760 Power Quality Recorder has numerous internal non-volatile memory devices for holding instrument firmware and data:

- An internal Compact Flash memory card stores LINUX operating system, log files, application firmware, FPGA configuration, calibration constants, measurement setup data and application data files.
- An FPGA with on-chip flash memory for holding the configuration (optionally, if transient analysis is built in).
- A small EEPROM in each sensor stores the serial number, type of accessory and calibration constants.
- Industrial CPU board containing CPU boot firmware and memory for storing BIOS settings

## Memory Cleaning Instructions:

1. Connect to the Fluke 1760 Power Quality Recorder using PQ_Analyze.
2. Use “Advanced Settings” in PQ_Analyze to delete measurement data stored in the internal Compact Flash card.
3. Reset network settings to default.

*Note*

*The Ethernet network configuration will be set to DHCP enabled. After accomplishing this instruction it is not possible to connect to the instrument in a LAN where fixed IP addresses are used. A peer-to-peer connection using the cross-over cable and a USB connection is still possible.*

4. Rename device to its default name.

For more information, detailed step-by-step procedures can be found on the following pages.

## Memory Cleaning Limitations:

The LINUX operating system, application firmware, FPGA configuration in the internal Compact Flash memory card are factory programmed or updated during a firmware update, contain no user data, are not unique to the instrument, and cannot be cleaned.

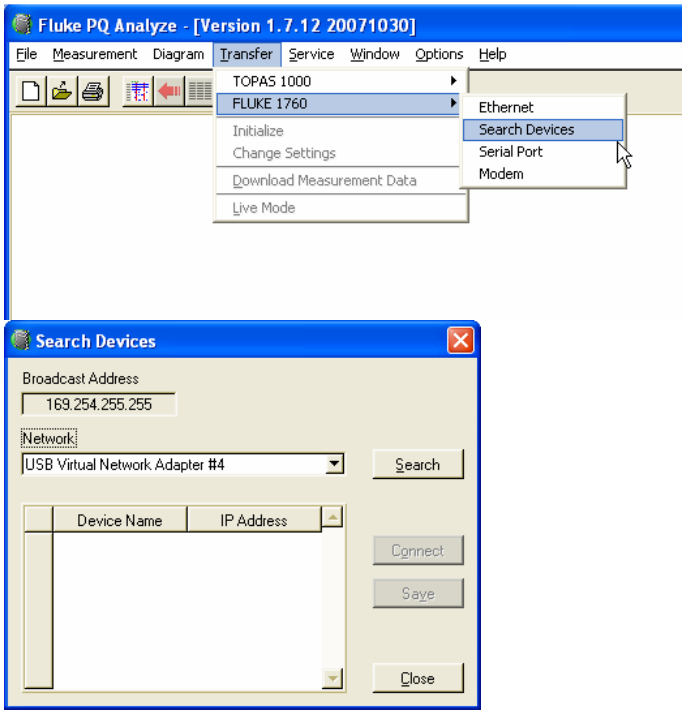
The internal Compact Flash memory card contains application log files that cannot be cleaned. They save a limited rolling history of status and diagnostic information for the instrument for use by service personnel.

The instrument serial number and calibration constants that are stored on Compact Flash memory card cannot be modified by the user and cannot be cleaned.

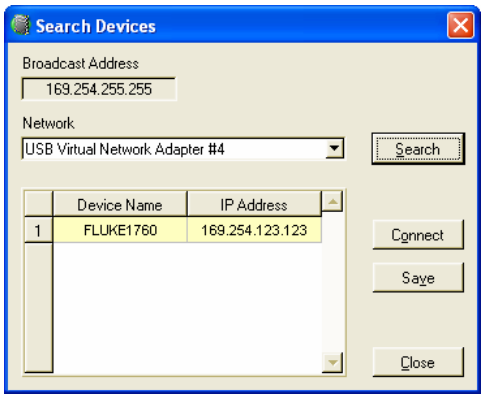
The Fluke 1760 Power Quality Recorder does not provide secure erasure of memories/files. Consequently, it may be possible to recover data from the 1760 even after these memory cleaning instructions have been followed. In addition, some files that cannot be cleaned by this procedure, such as application log files, may contain Ethernet network addresses and other information that could conceivably be used to identify specific instruments, when and where they recorded data, and other potentially sensitive information.

## Detailed Memory Cleaning Instruction

1. Use the USB cable to establish a connection to the PC. Alternatively a connection to your LAN or a peer-to-peer LAN connection using the cross-over cable is also possible.
2. Turn on the instrument.
3. Start software PQ_Analyze.
4. Connect to the instrument:
   Use *Transfer>FLUKE 760>Search Devices*

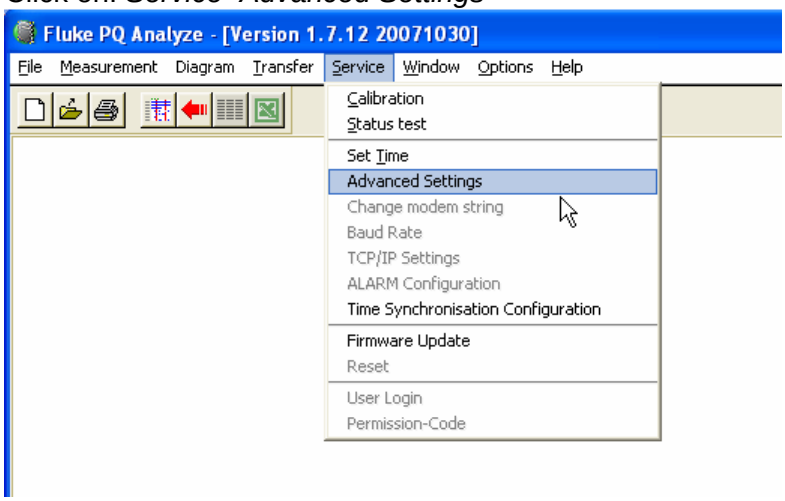


5. Click the *Search* button.




6. Select instrument where the measurement data should be erased and click on *Connect*.

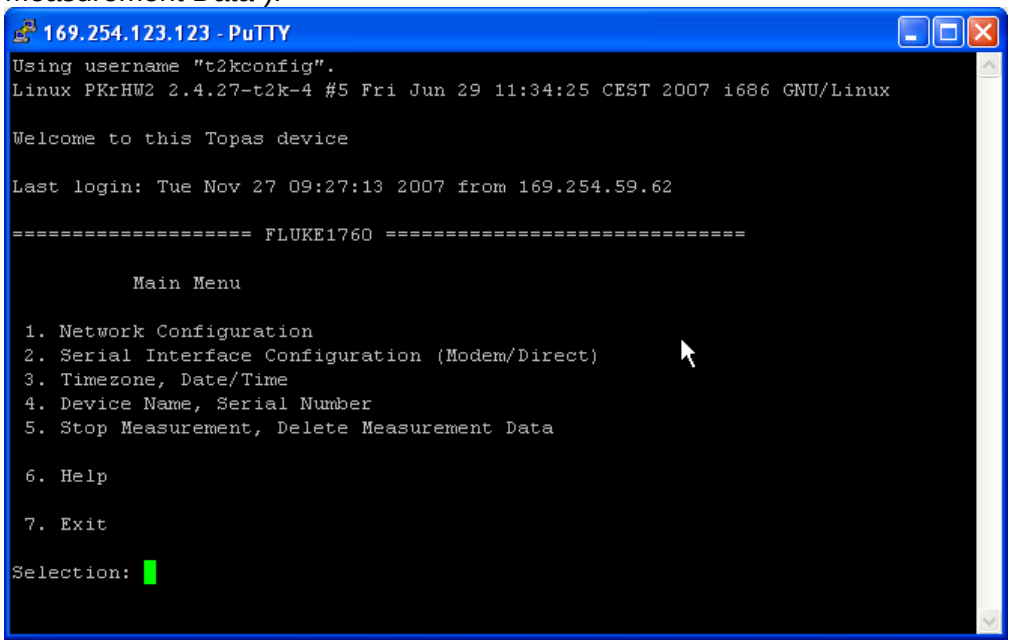
7. Click on: *Service>Advanced Settings*



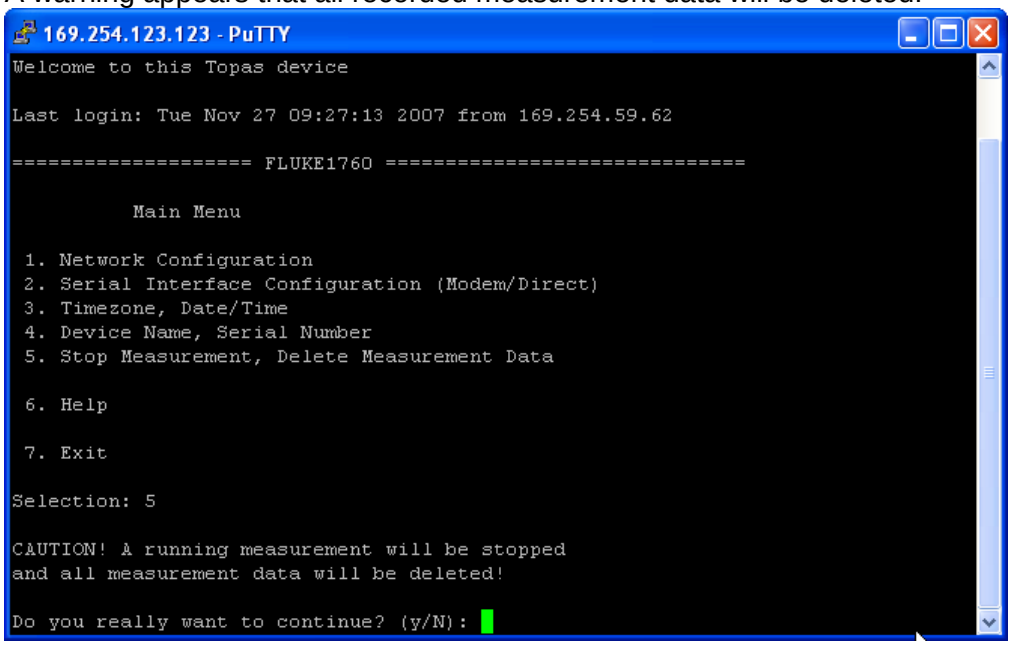

8. The first time you do this a security message is displayed (verification of trusted connection). Press **Yes**.

## Delete Measurement Data

1. In the configuration main window enter *5* (“5. Stop Measurement, Delete Measurement Data”).

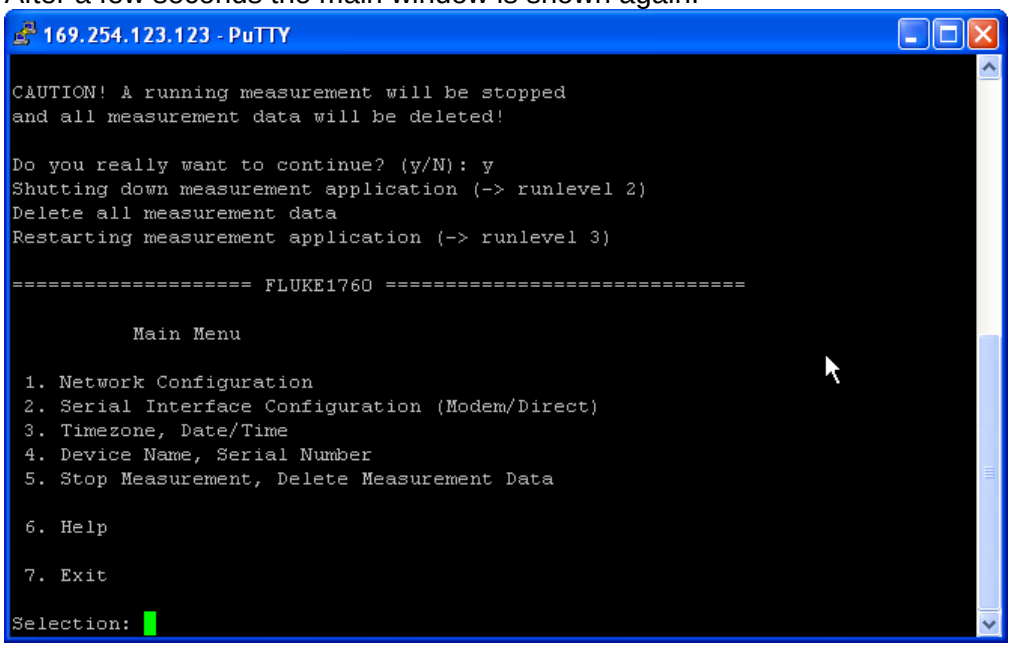



2. A warning appears that all recorded measurement data will be deleted.



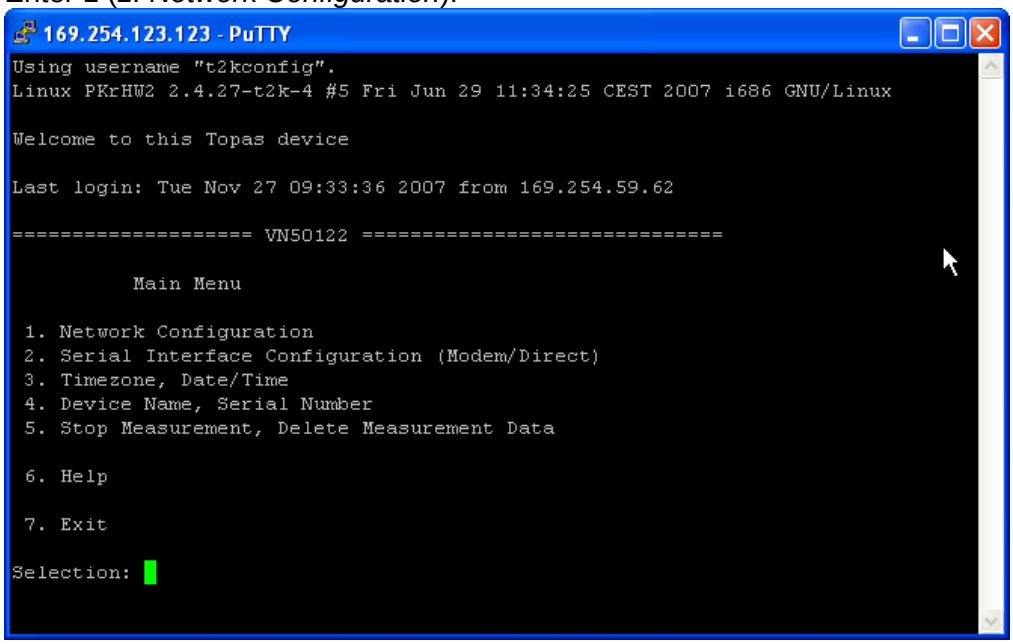

3. Press *Y* (case insensitive).

4. After a few seconds the main window is shown again.

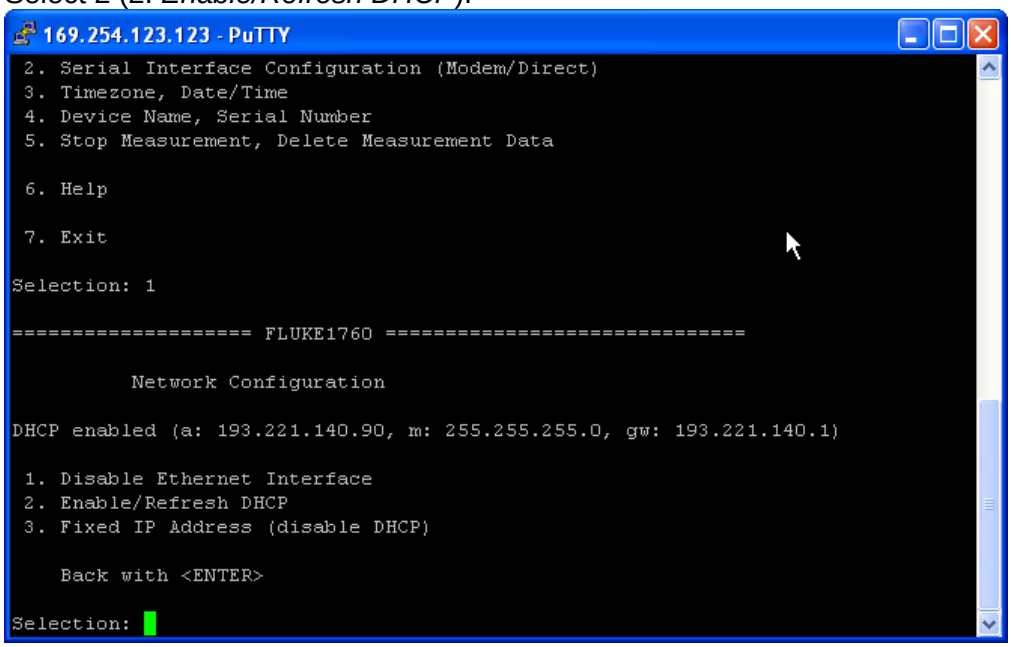



## Restore Network Default Settings

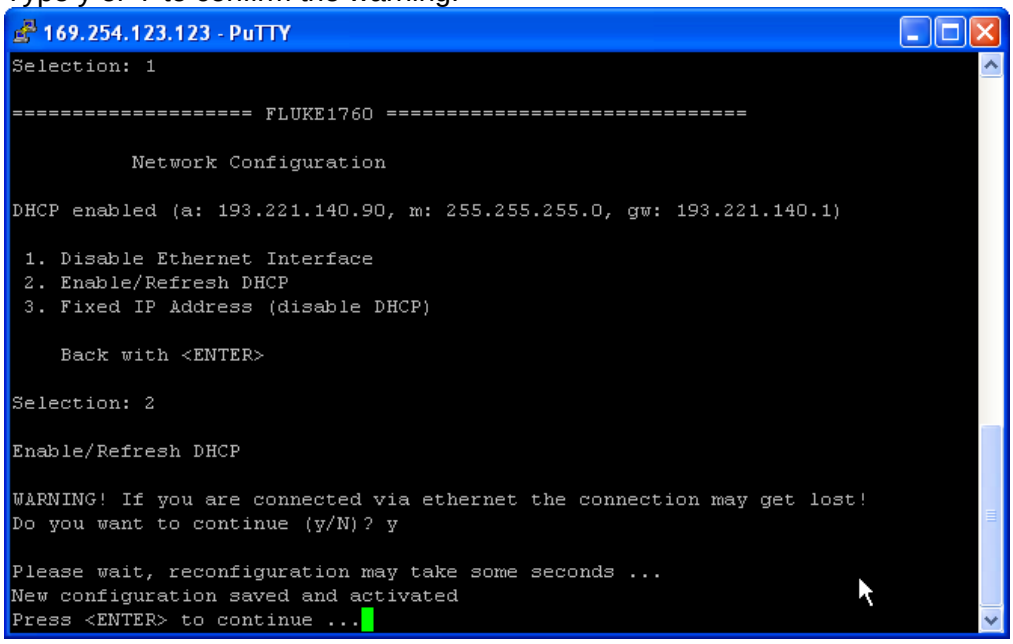
1. Enter 1 (*1. Network Configuration*).



2. Select 2 (2. *Enable/Refresh DHCP*).



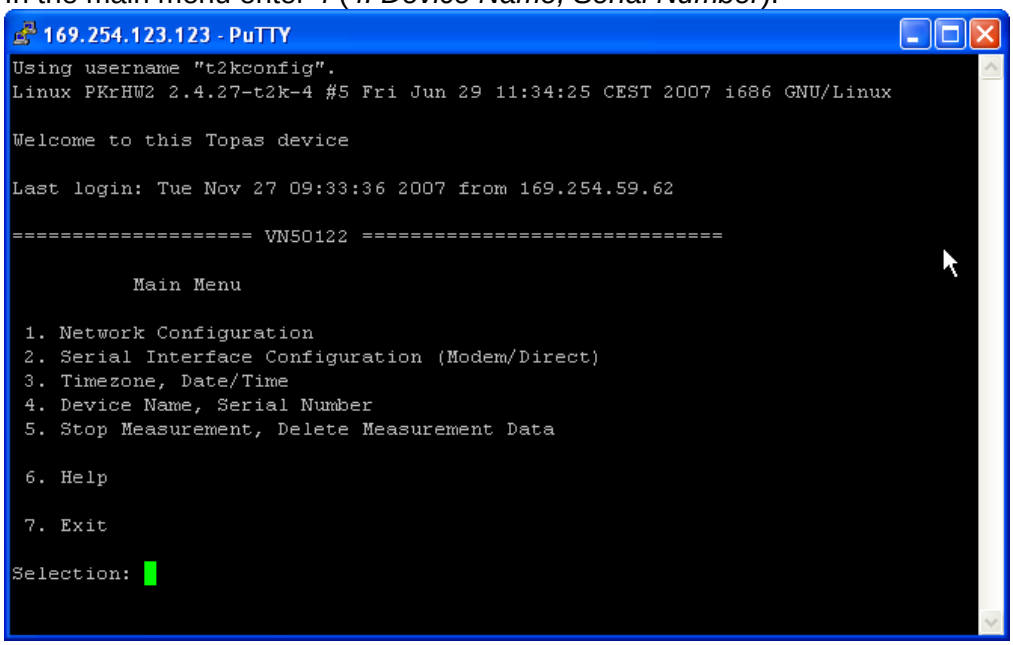

3. Type y or Y to confirm the warning.



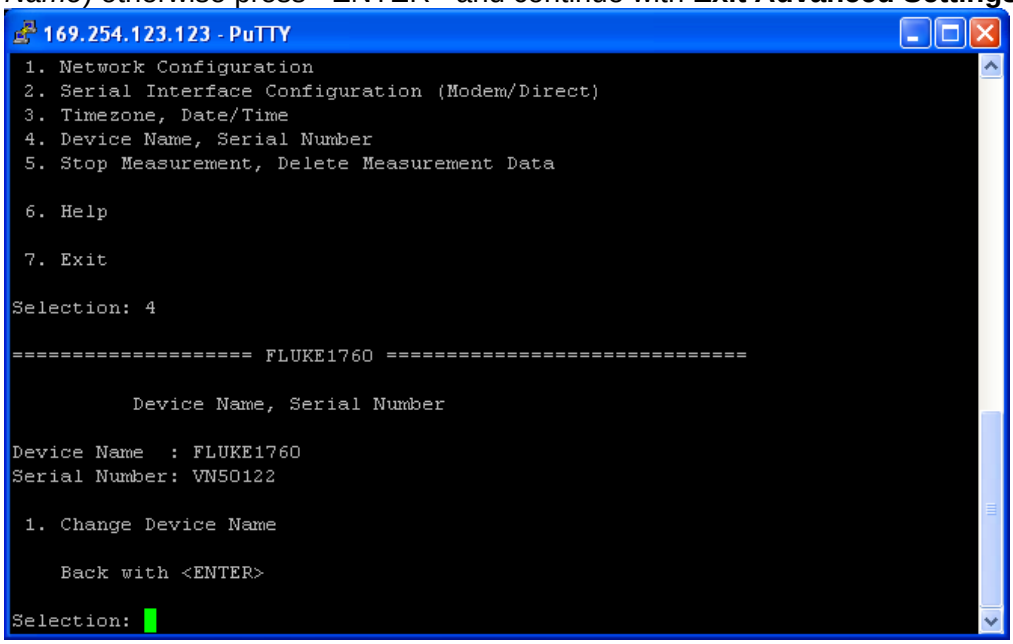

4. Press <ENTER> twice to get the main menu.

## Set Default Device Name

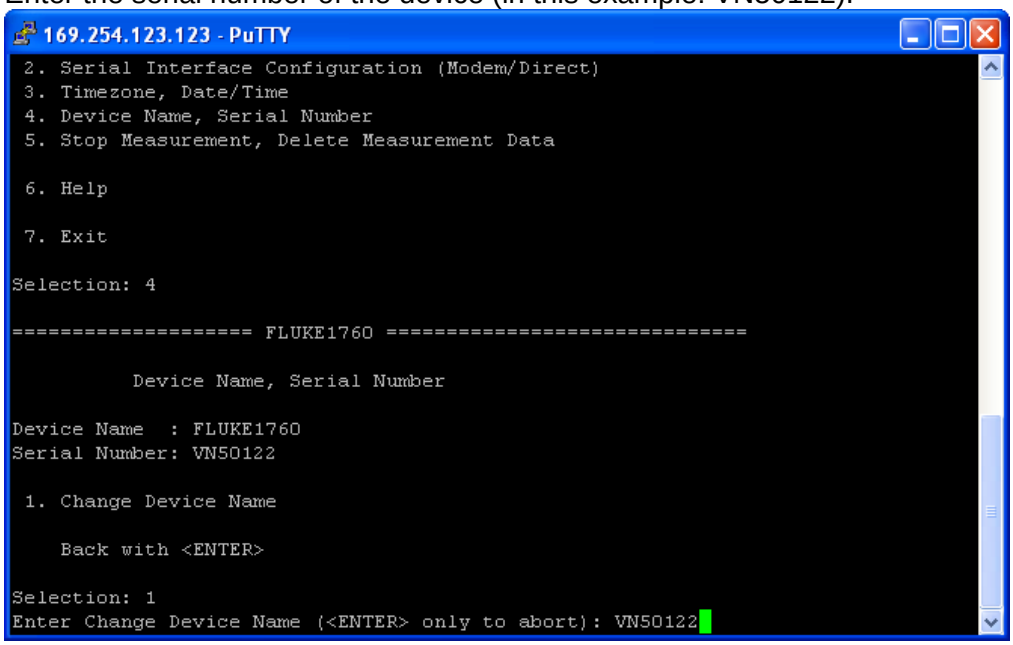
1. In the main menu enter *4* (*4. Device Name, Serial Number*).



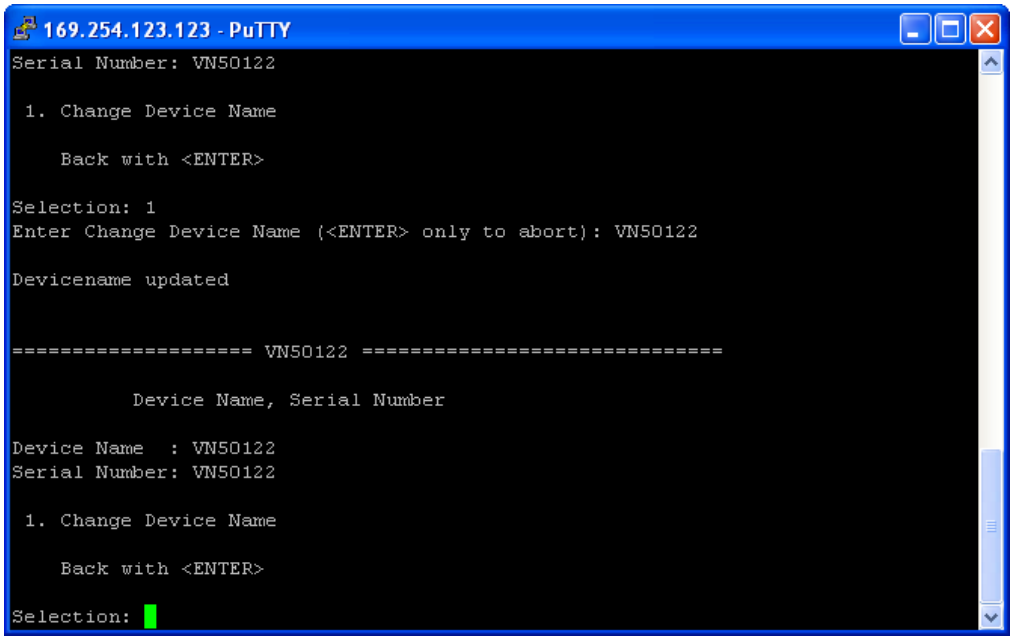

2. If the Device Name and Serial Number is not identical enter *1* (*1. Change Device Name*) otherwise press <ENTER> and continue with **Exit Advanced Settings**.



3. Enter the serial number of the device (in this example: VN50122).




4. The window shows the new device name. Press <ENTER> to jump back to the main menu.



## Exit Advanced Settings

1. In main menu press 7 (*7. Exit*).