

How to configure a TeSysT on DeviceNet with RSNetworx?

I- Type of publication

<input type="checkbox"/> Typical application	<input type="checkbox"/> Level 2 use
<input checked="" type="checkbox"/> Best know Method (BKM)	<input type="checkbox"/> Internal use
<input type="checkbox"/> Troubleshooting guide	<input checked="" type="checkbox"/> Customer

II- Product

- Product range :

TesysT ▼

- Product family :

LTMR ▼

III- Introduction

This document will describe you how to configure TeSysT on a network DeviceNet with a PLC Allen Bradley. The CPU is a Logix 5561 and the communication card is 1756-DNB.

IV- Description

Step 1: Download EDS files for TesysT and DeviceNet Network

a www.schneider-electric.com

b Product offers

c Motor control

d Protection components

e Downloads

f Software/firmware

g EDS files

Title	Type	Version	Ln
EDS&GSD for TeSysT	EDS files	V2.1	All

EDS file version 1_08 : only for TeSysT firmwares version 1.7 and 1.8

EDS file version 2_01 : only for TeSysT firmwares version 2.1 and 2.2

Step 2: Install Software to configure TesysT

For this technical resolution I use RsLinx 2.53 and RsNetworkx V5.00.
After, we are going to create an example of configuration and control for one TesysT in "Remote Configuration from the PLC".

Step 3: Configure TeSysT

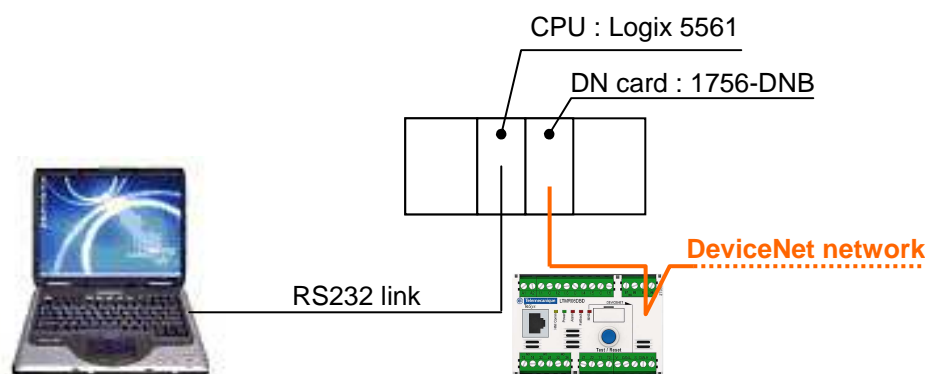
On DeviceNet you can configure the slaves (TesysT or TesysU + LULC09 ...) with RsLinx and RsNetworkx so we start by RsLinx.

3.1.) RsLinx : Configure the information transfer (computer driver) between your computer and the DeviceNet network

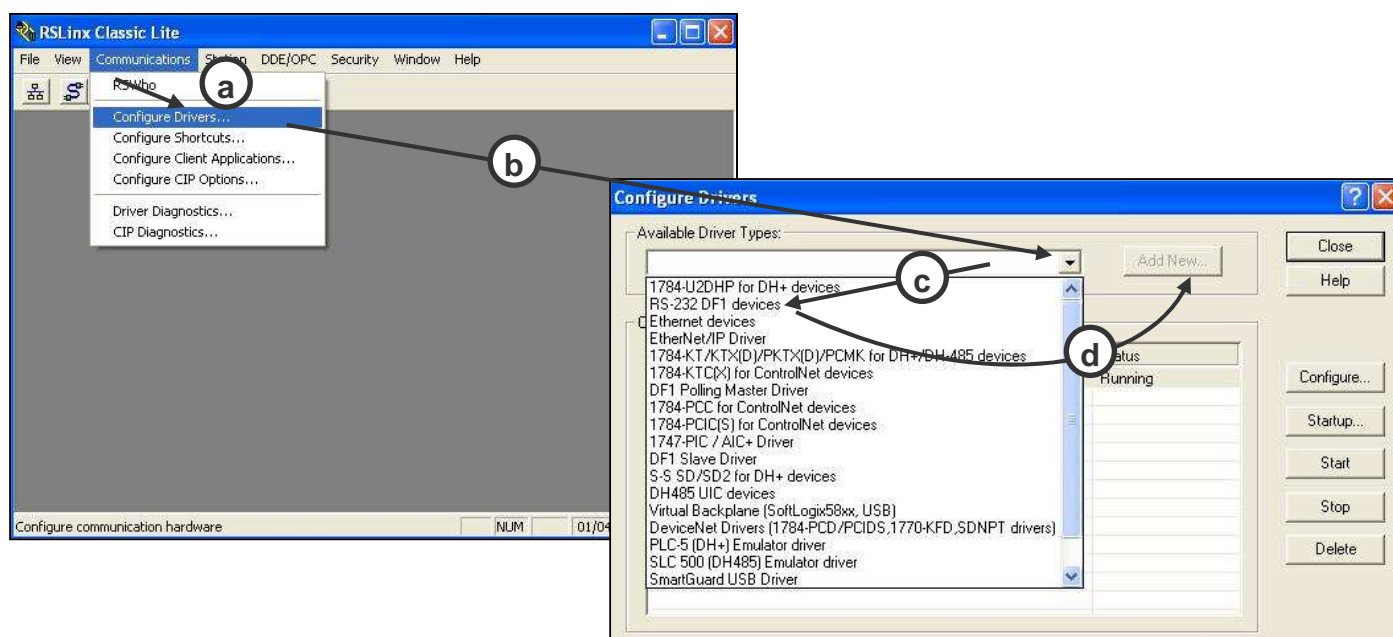
We use a RS232 link provided by Allen Bradley manufacturer (cable available when you buy an Allen Bradley CPU) to connect the serial port of the computer to the serial port of the CPU. Through, the processor (CPU) we exchange all informations from the DeviceNet network (by the master card 1756-DNB).

To summarize, this software can establish the transfer of configuration datas to TesysT and the program to the Allen Bradley PLC from your computer.

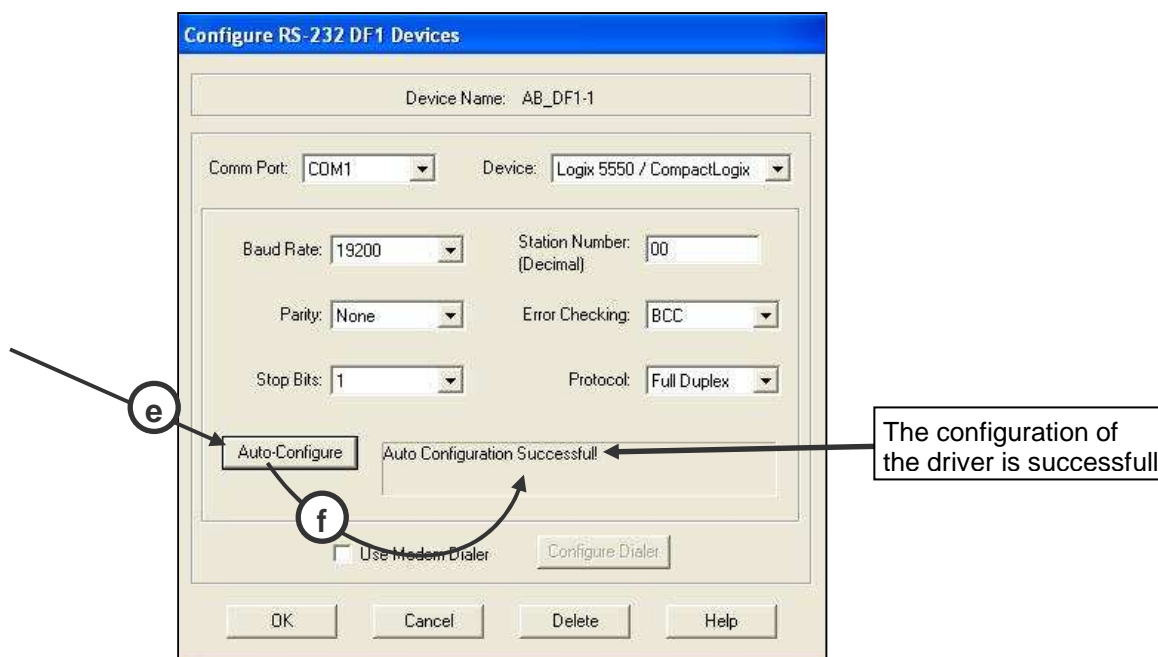
Diagram:



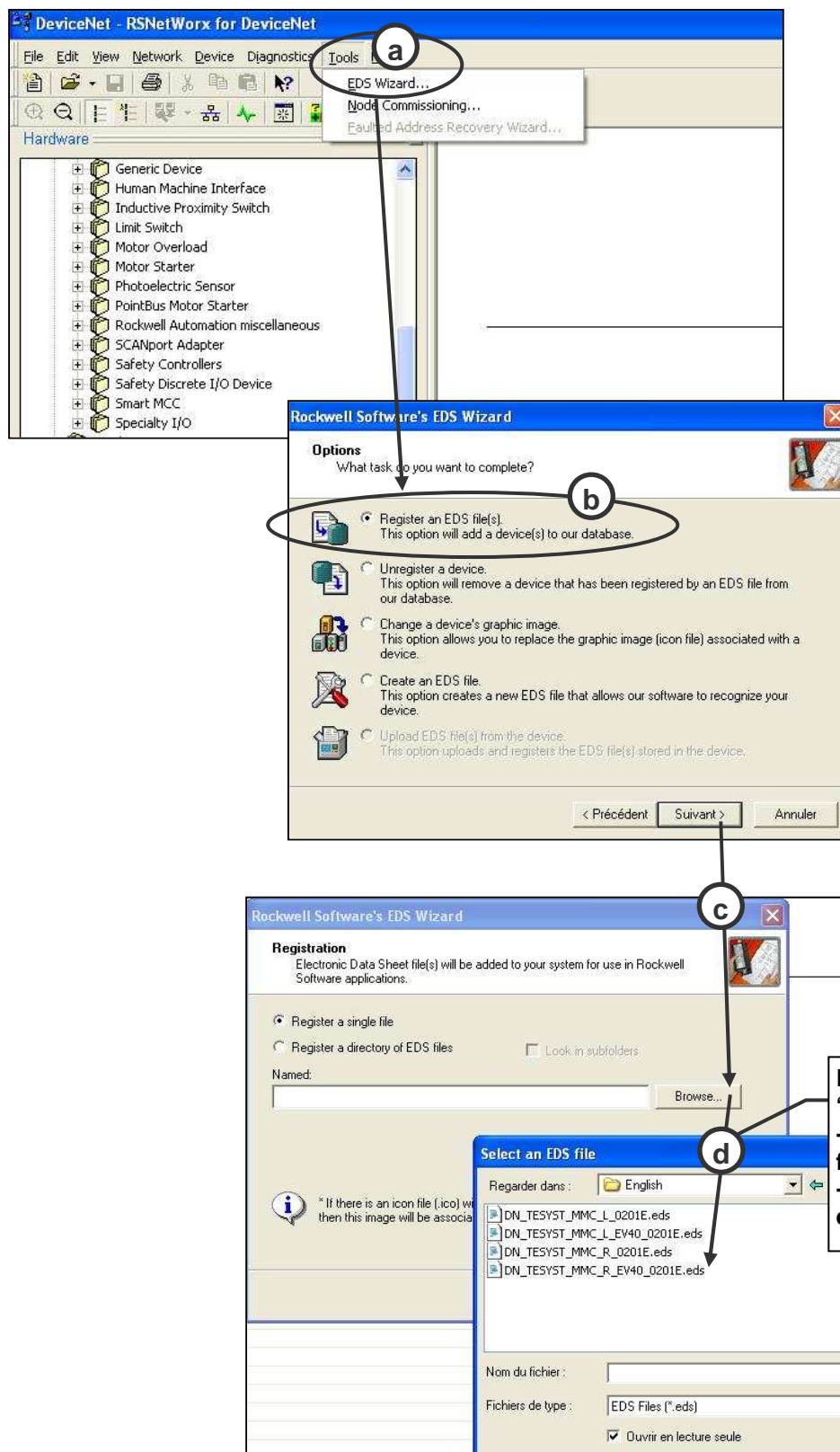
- Start RsLinx:



After clicking on “Add New” and validate “Ok” for Driver Name you have this window:

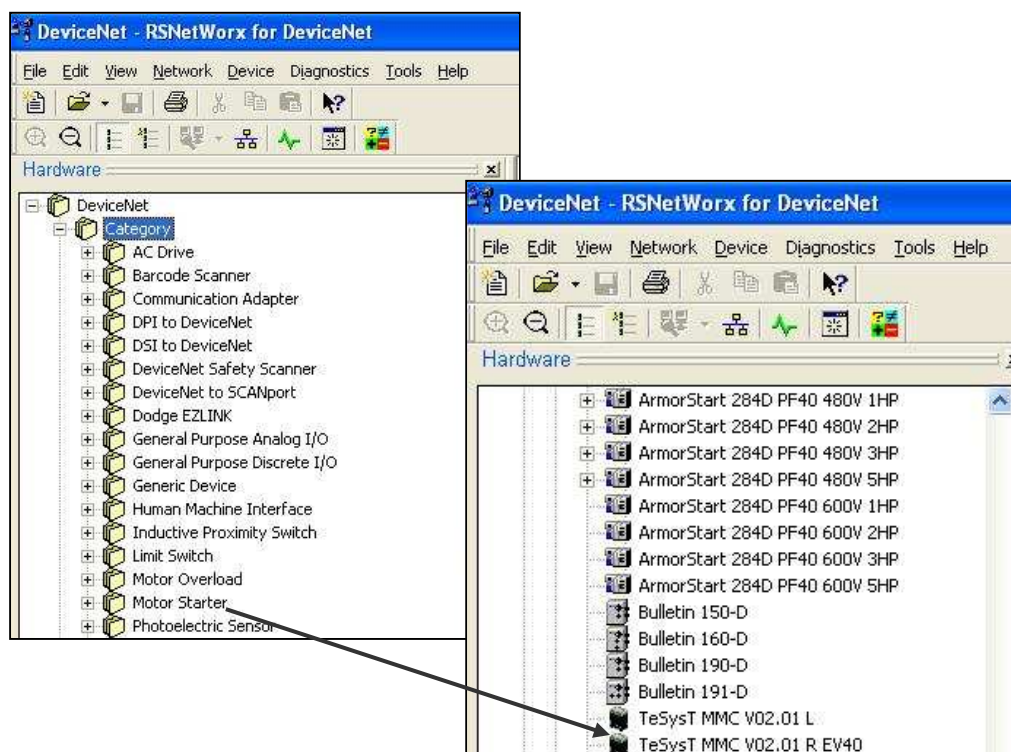


3.2.) RsNetworx: “EDS recording”



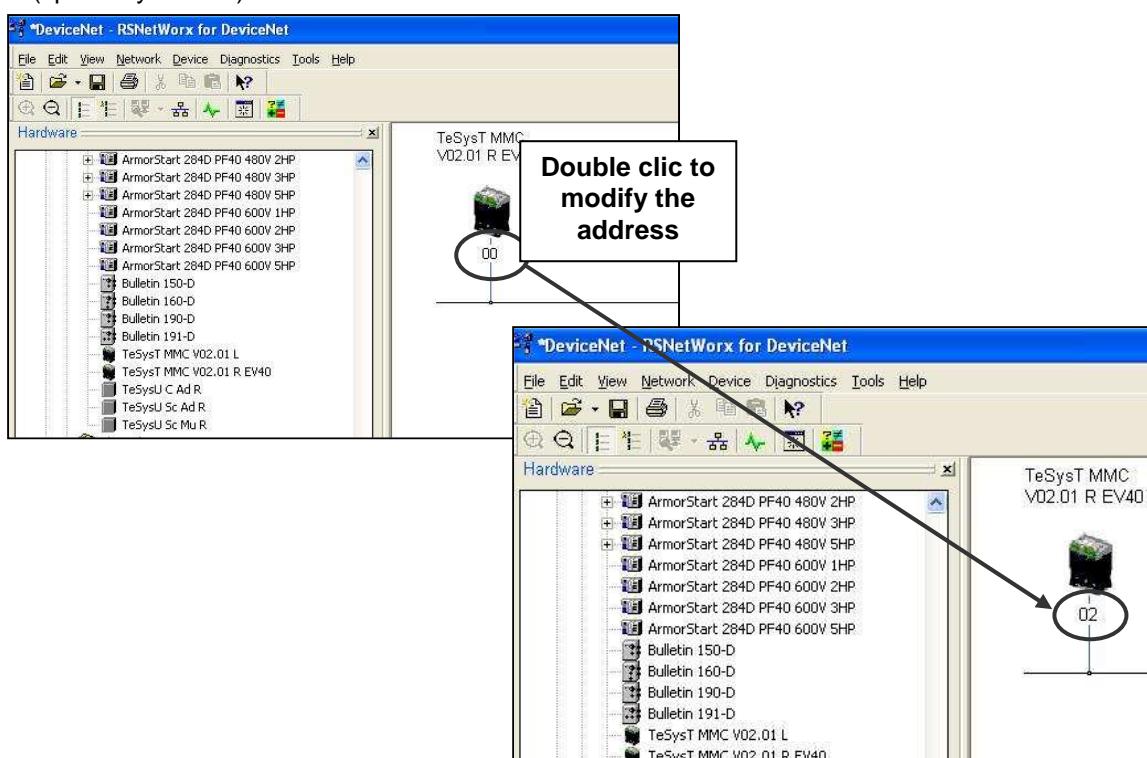
You validate the last windows by “Open” and you validate other windows to go back to the main screen of RsNetworx.

Now you can find the EDS recorded into the RsNetworkx library “Motor Starter”:



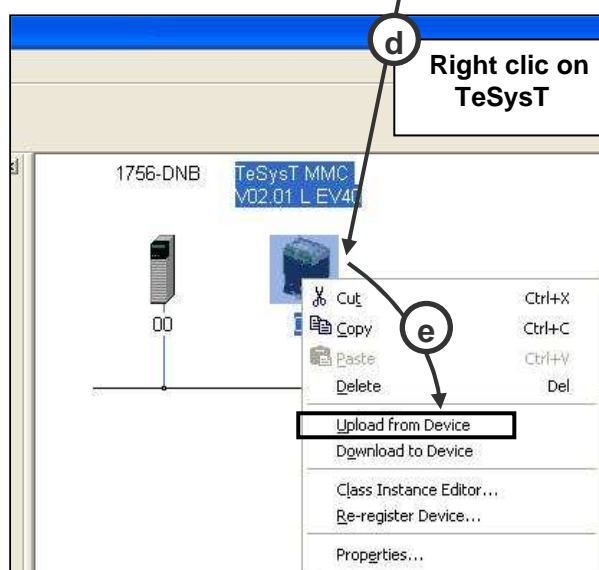
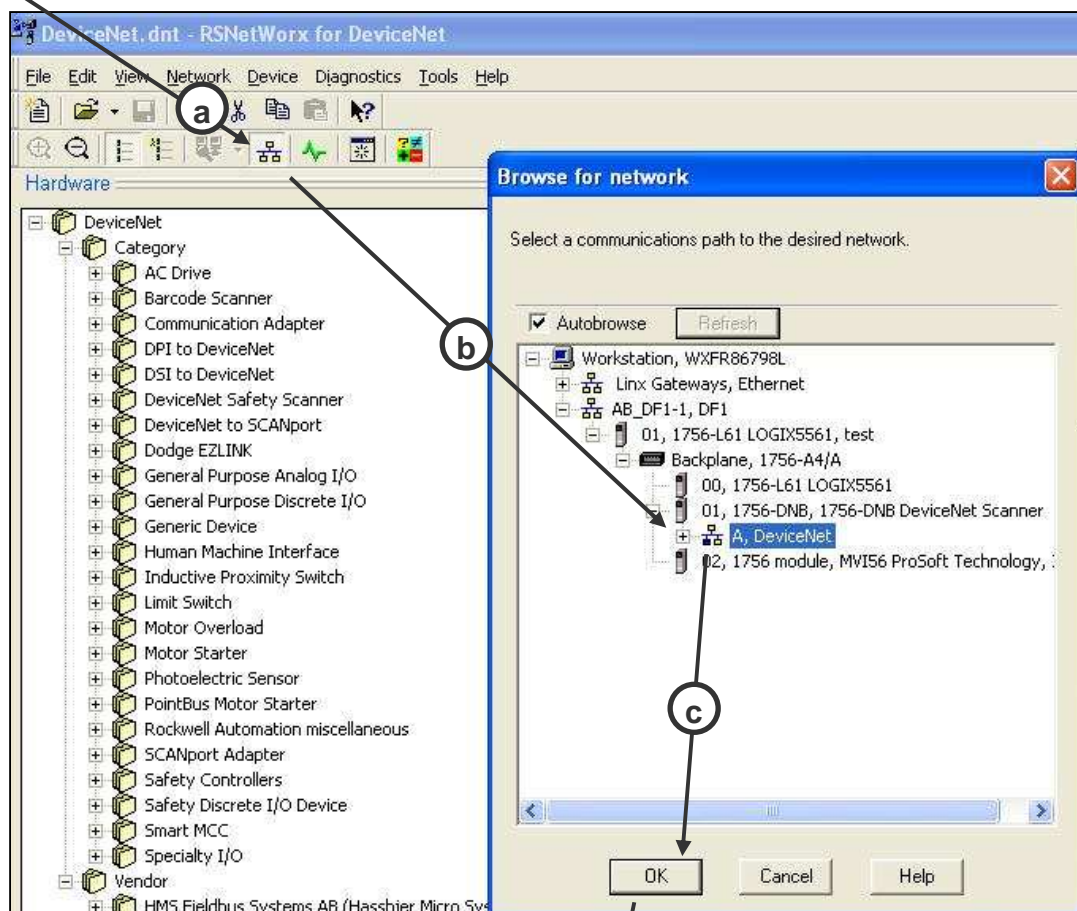
3.3.) RsNetworkx: “Configure TesysT”

Select TeSysT into the library. For our example we take address “2” for a network speed 125 kbits/s (speed by default).

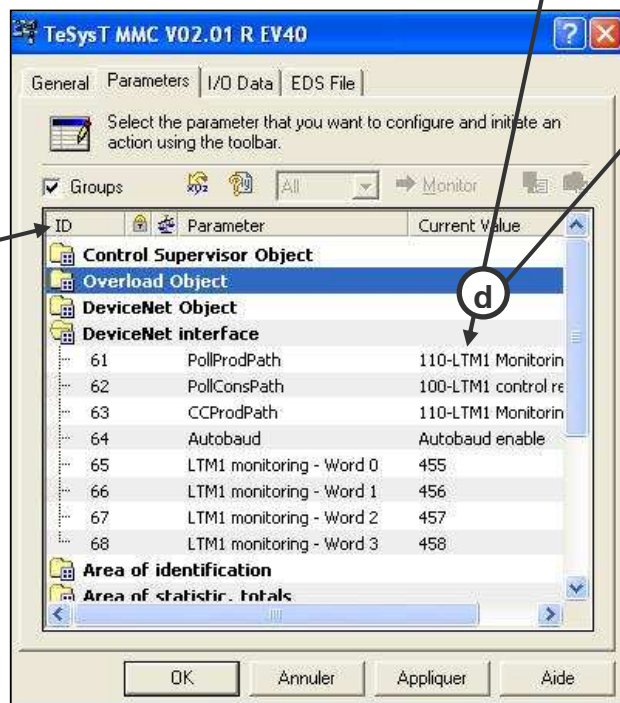
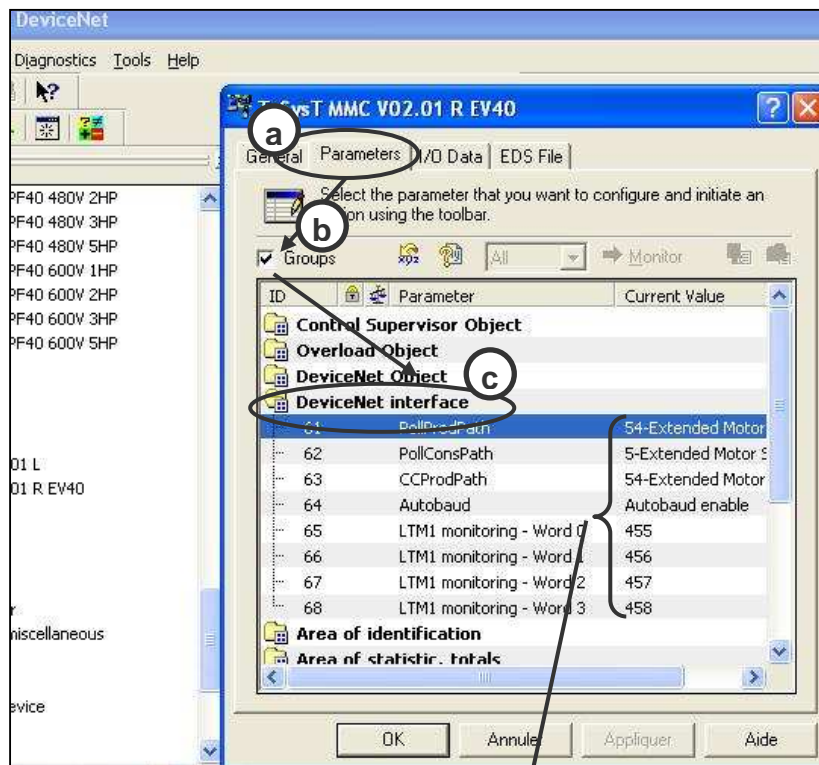


Uploading information from TeSysT by RsNetworkx:

Go Online with RsNetworkx:



After Uploading, you click on TeSysT icon and you can configure TesysT information:



-Into the ID61-62-63: select instances 110,100 & 110. For our example we take these instances (an instance defines which information you want to read or write). If you want to look which other informations you can access with other instance then see user manual TeSysT DeviceNet April 2008 page 394.

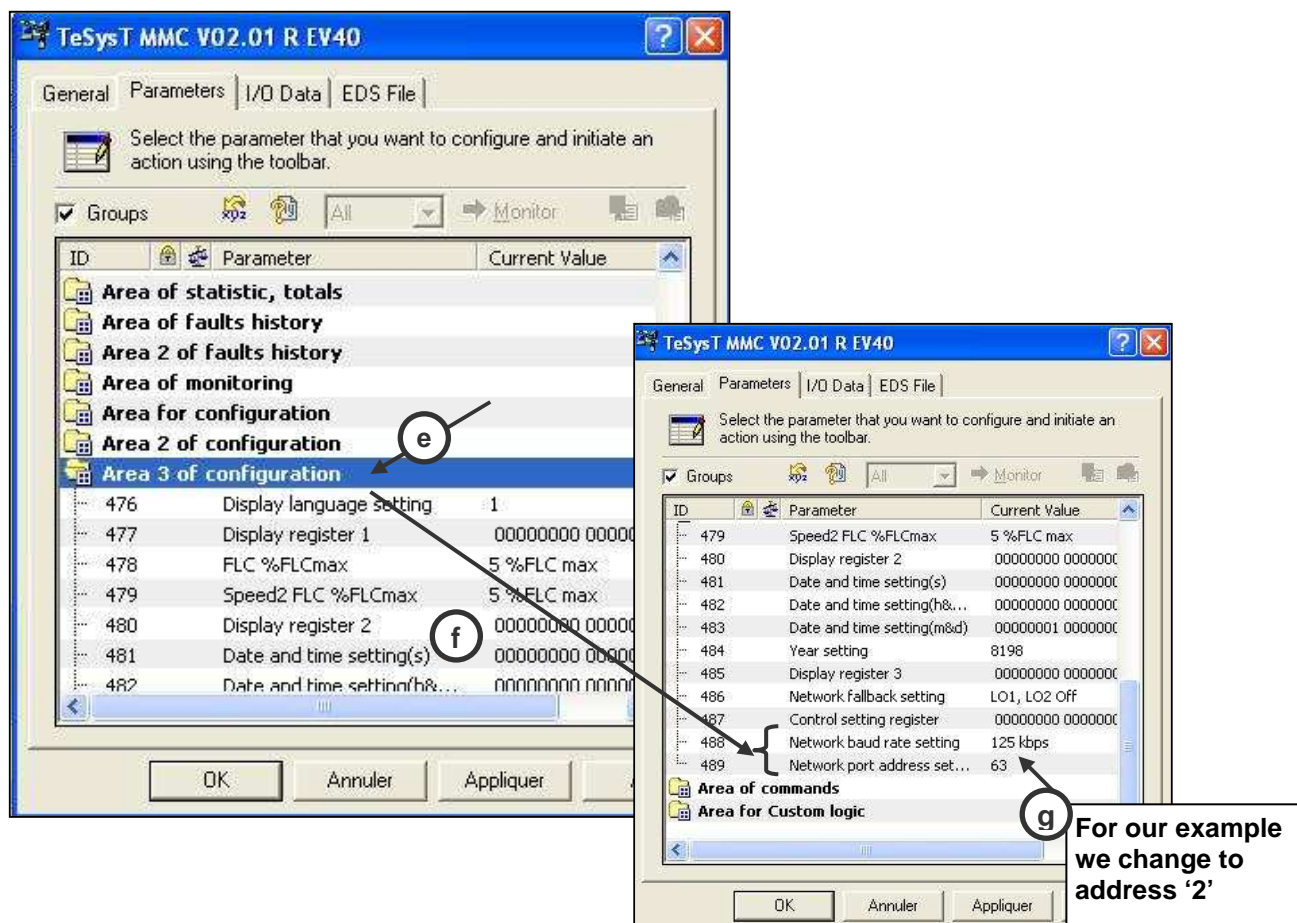
-When you select instance 110 (or 113) for ID61 the TeSysT returns to the PLC informations contained into ID65-66-67-68. By default, TeSysT returns cyclically registers 455, 456, 457 & 458.

- You can change the informations returned by selecting ID65 or ID66 or ID67 or ID68.

- Into the IDs65 to 68 you can configure all the informations contained between the registers 450 to 539 only (see user manual TeSysT DeviceNet April 2008 page 431).

Link for user manual TeSysT DeviceNet April 2008:
[http://www.global-download.schneider-electric.com/852575030043326A/all/3A734120F9E60152C125746F0031859C/\\$File/1639504_02a55.pdf](http://www.global-download.schneider-electric.com/852575030043326A/all/3A734120F9E60152C125746F0031859C/$File/1639504_02a55.pdf) (Note: the downloading can take few minutes)

**Configuration of TeSysT Address and baudrate (settings not available if you use an EDS file
DN_TESYST_MMC_Lxxxxxx: Local configuration file):**

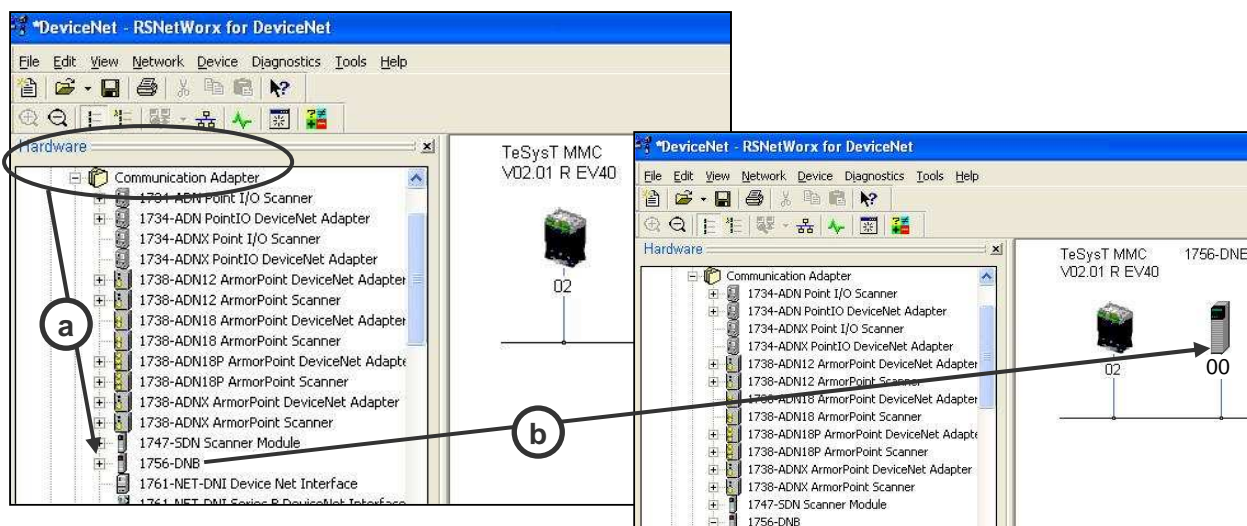


You validate all windows by "OK" and the information will be downloaded into TeSysT. (be sure that you are still On-Line)

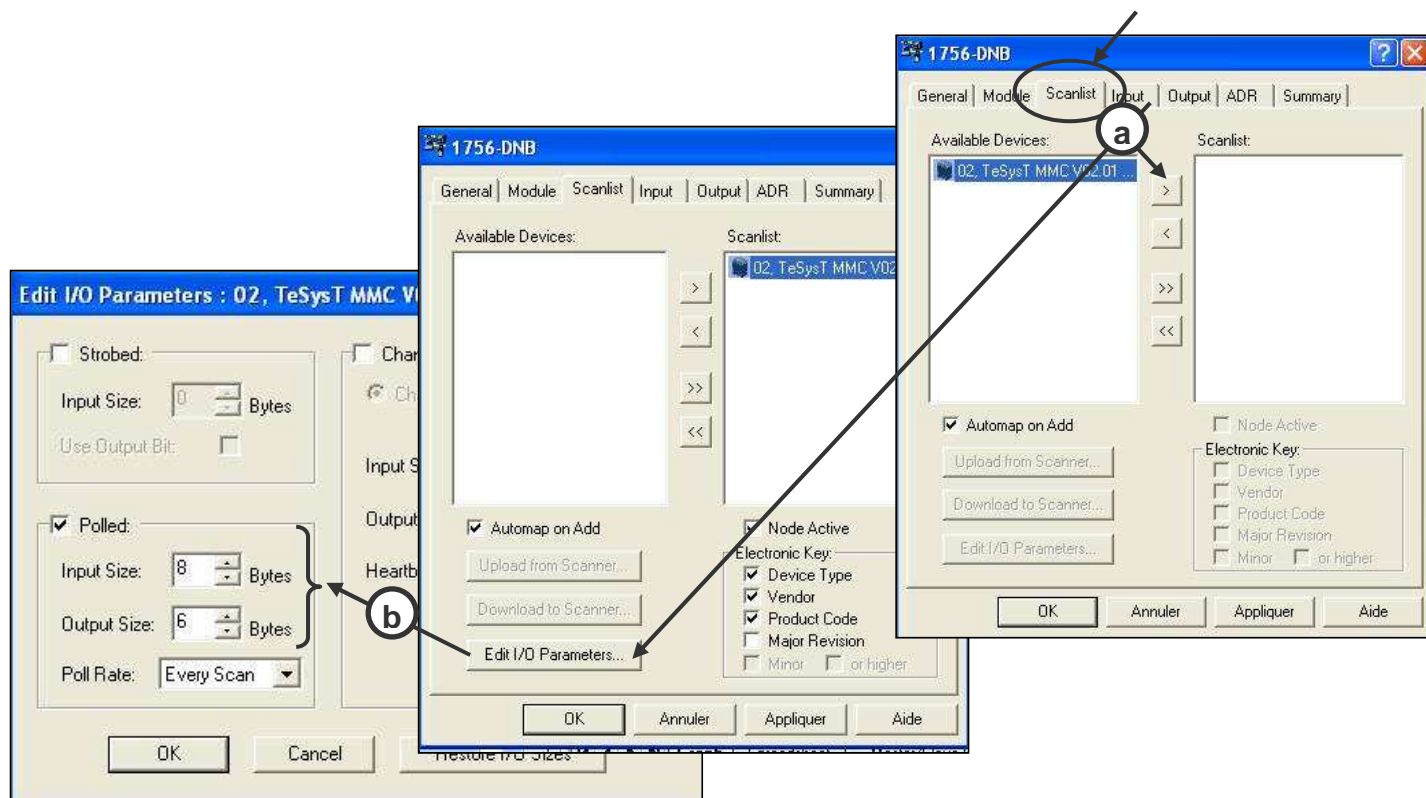
Step 4: Configure Master Card

We remind you that for TeSysT we have selected instances 110, 100 & 110 (cyclic exchange for reading informations registers 455, 456, 457 & 458 and writing informations registers 704, memory reserved, 700).

You take into the library "Communication Adapter" the master card "1756-DNB":



Go Online and Upload information from the master card 1756-DNB as seen on the page 7.

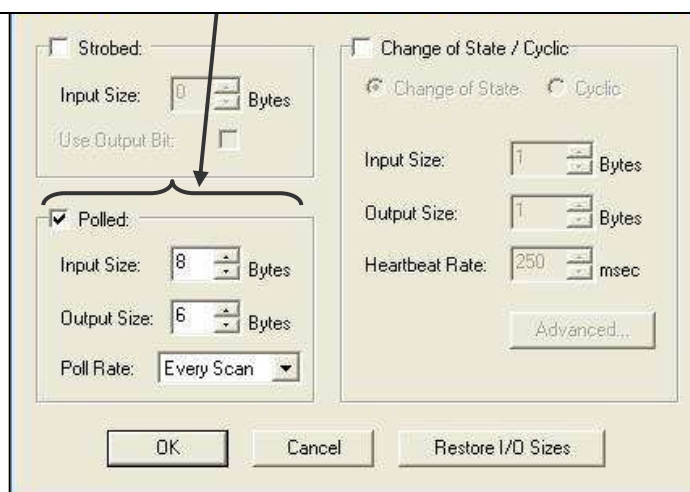


According to the instance selected (see page 8 - 3.3) the input data and output data exchanged have different size.

For our example:

- The instance 110 has 8 bytes (4 words): we read register 455 (TesysT status), 456 (TeSysT status), 457 (Input status) and 458 (Output Status)

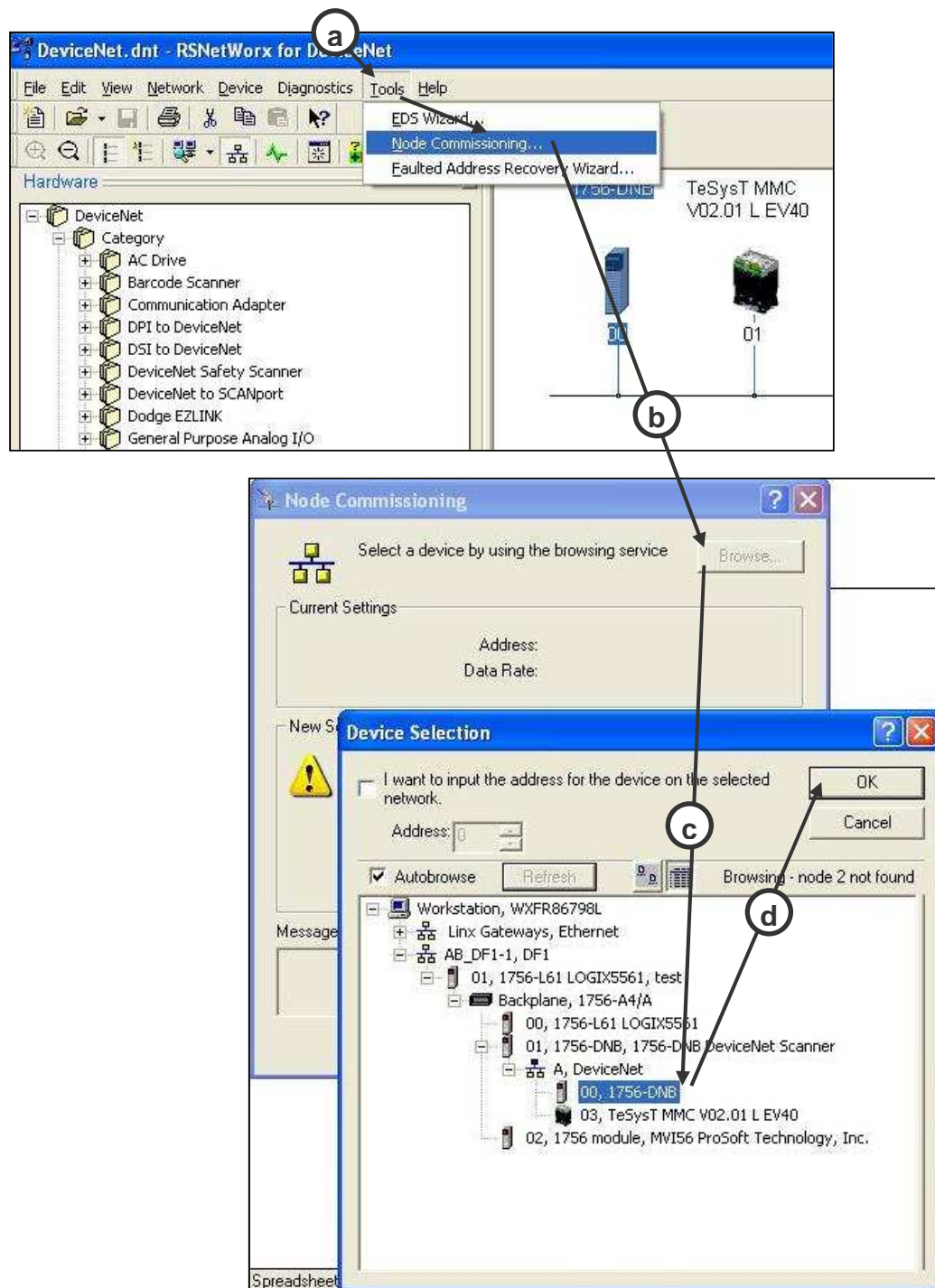
- The instance 100 has 6 bytes (3 words): we write 704 (TesysT command), Reserved area, 700 (memory available for custom mode to write cyclically information from PLC to TeSysT) (see user manual TeSysT DeviceNet April 2008 page 383).



You validate all windows by "OK" and all informations will be downloaded (be sure that you are still On-Line and the Key of the PLC is on program mode)

Step 4: Additional information

In this example (TesysT address is '2' and baudrate is '125 kbps'), we keep the baudrate value by default so we do not change the network speed managed by the master card DeviceNet (1756-DNB). However if you want 500 kbps, you can change the network speed by this way:



Now the window is refreshed and you can access to the area of baudrate and address for the master card:



V- Limitation

The TeSysT does not support the "ADR" service of DeviceNet network (you have this option in the settings of the master card 1756-DNB: check that this option is disabled into the menu "ADR").