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NEWS

How do you replace a serial MD2 connection with SHDSL with SINAUT ST7?

SCALANCE M826-2 SHDSL Router

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1 Settings in the SIMATIC Manager

Table 1-1

No.	Action	Remark
1.	Open your STEP 7 project in the SIMATIC Mana	ger and switch to NETPRO.
2.	Select the TIM to which the modem to be replaced is connected.	01_Master 01_314 314 31
3.	Go to the "Interfaces" tab. Select the dedicated line ("Standleitung") and delete it from the station using the "Delete" button.	Properties - TIM 3V-IE - (R0/S4) General Addresses Special Time Service Interfaces Options Interface State Interface State Interface State Interface Rot connected address = 152 153 0 1 WAHI connected for Standetung(I) Interface Rot connected Rot connecone Rot connected Rot connected Rot conn
4.	Select the Ethernet interface and change the IP address by clicking "Properties".	Properties - TIM 3V-IE - (R0/54) General Addresses Special Time Service Interfaces Options Interface State Interface In

1 Settings in the SIMATIC Manager

No.	Action	Remark
5.	Enter the required IP address. Then create a new Ethernet network and connect it to the station.	Properties - Ethernet interface TIM 3V-IE (R0/S4) General Parameters Image: Set MAC address / use ISO protocol MAC address:
	Note: Connect all the stations of the dedicated line to be replaced to the same Ethernet network.	IP address: 192.168.1.2 Gateway Subnet mask: 255.255.0 G D not use router C Use router Address: Address: Properties Properties Delete OK Cancel Help
6.	Repeat this procedure for the other stations conr	nected to the dedicated line.
7.	Compile the project. The completed network configuration is now as shown in the figure.	01_Master CPU TM 314 AAV. 2 Ethernet(1) Industrial Ethernet 02_Station 314 314 314 314 314 314 314 314 314 314 314 314 314 314 314 314 314

2 Settings in the SINAUT ST7 Engineering

2.1 Configure SINAUT Connections

Table 2-1

No.	Action	Remark
1.	Start the SINAUT ST7 Configuration Tool and open your project.	
2.	The Connection Configuration option is selected. Click OK.	SINAUT Configuration Tool
3.	The configured connections are shown in the left window. The invalid connection is marked in red. Delete this connection via "Right-click > Delete".	Start D1: Conjunto: A part 2004/LAXX: And D2004A4/ACCC12404854004/2 Image: Conjunto: A part 2004/LAXX: And D2004A4/ACCC12404854004/2 Part I: D1: Ref Conjunto: A part 2004/LAXX: And D2004A4/ACCC12404854004/2 Image: Conjunto: A part 2004/LAXX: And D2004A4/ACCC12404854004/2 Void a start 2004/LAXX: And D2004A4/ACCC12404854004/2 Image: Conjunto: A part 2004/LAXX: And D2004A4/ACCC1240487400474 Void a start 2004/LAXX: And D2004A4/AA Image: Conjunto: A part 2004/LAXX: And D2004A4/AA Void a start 2004/LAXX: And D2004A4/AA Image: Conjunto: A part 2004/LAXX: A
4.	The possible connections are shown in the right window. Select the required connection(s) via "Right-click > Add". The added connections are shown in the "configured connections" window on the left.	
5.	Save the configuration and switch to	

2.2 Save and Create System Data

Table 2-2

No.	Action	Remark
1.	Save and compile your project in the subscriber	administration.
2.	Confirm the first window with OK. Leave the options unchanged and proceed with OK. Note: Only the option "Generate System data blocks for TIMs and CPUs" should be selected. It is not necessary to compile the TD7 sources.	Options Subscriber administration Print © Overview format © Details Generation / Compliation optiona IV Generate System data blocks for TIMs and CPUs © Generate SINAUT TD7 source files for CPUs Generation / Compliation of TD7 source files will be done @ for all CPUs Generation Compliation of TD7 source files will be done @ for all CPUs C for selected CPUs C for selected CPUs Subscriber number as comment for stations, CPUs and TIMs SMS configuration IV Check character set of SMS message strings OK Cancel
3.	The SDBs are regenerated and saved in the STEP 7 project. If no errors occur, close the program.	Info - Generation / Compilation All SINAUT configuration data have been saved successfully. State of optional generation / compilation functions: - Generation of System data blocks for TIMs and CPUs: OK - Generation of SINAUT TD7 source files for CPUs: not started - Compilation of SINAUT TD7 source files for CPUs: not started - Generation of SINAUT TD7 source files for CPUs: not started - Generation of comment for stations, CPUs and TIMs: not started - Generation of comment for stations, CPUs and TIMs: not started - Material - Material - Compilation of SINAUT TD7 source files does not include the result of the compilation of SINAUT TD7 source files does not include the result of the compiler run. For safety reasons the output messages of the STEP7 block editor should always be checked. DK Help

3 Download Stations

When you have completed the settings in the SIMATIC Manager and SINAUT Configuration Tool, you can download the stations.

Table 3-1		
No.	Action	Remark
1.	Connect your PG/PC with the Ethernet interface	of the TIM.
2.	Download the project from the SIMATIC Manager.	SIMATIC Manager - [SINAUT_WAN File Edit Insert PLC View Op File Edit Insert PLC View Op SINAUT_WAN Object name Object name Hardware CPU 314 TIM 3V-IE Adv.
3.	Repeat the procedure for all the stations.	

4 Connect Hardware

Table 4-1

No.	Action	Remark
1.	Connect the Ethernet interface of the TIM to the	Ethernet interface of the SCALANCE M826-2.
2.	In 2-wire mode you connect the 2-wire conductor directly to the first connection block (X1) of the device.	

When the SHDSL connection is established, the LED X1 lights green.

5 Configure SCALANCE M 826-2

If the SHDLS connection is not established or if you want to configure a 4-wire mode, you have to make settings in the Web Based Management (WBM) of the SCALANCE M826-2.

5.1 Assign IP Address

First assign an IP address to the SCALANCE M826-2 as described below, because there is no factory-set IP address (IP address: 0.0.0.0).

Table 5-1	
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No.	Action	Remark
1.	Connect your PG/PC to the Ethernet interface of	of the SCALANCE M826-2.
2.	Open the SIMATIC Manager and go to "PLC >	Edit Ethernet Node".
3.	Click "Browse" and select the SCALANCE M82	6-2.
4.	Enter the required IP address and assign it via "Assign IP Configuration".	Edit Ethernet Node Nodes accessible online Ethernet node Nodes accessible online MAC address: 00-18-18-84-4E-7F Browse - Set IP configuration IP address: 192-168.1.4 G Do not use router Subret mask: 255-255.256.0 C Use router Address: C Obtain IP address from a DHCP server Identified by C Device name C Client ID @ MAC address C Device name Device name Device name Assign IP Configuration Assign IP Configuration Reset to factory settings Reset Close Help Help
5.	Repeat the procedure for all the SCALANCE M	826-2s.

5.2 Settings for 4-wire Mode

Table 5-2

No.	Action	Remark
1.	In the web browser you enter the IP address of t "192.168.1.4").	ne SCALANCE M826-2 (in this example
2.	Switch to "Interfaces >SHDSL" and select the interface "SHDSL 2".	Welcome admin SHDSL Overview Loased Overview Configuration Connection Check >Wizards Enable PME Aggregation Function Information Interface Status Role SHDSL 1 enabled Central Office (CO) SHDSL 2 enabled Customer Premises Equipmer SHDSL Set Values Refresh SHDSL Set Values Refresh Set Values Refresh Set Values Set Values Refresh Set Values Set Value

No.	Action	Remark
3.	Set the same role as for the interface "SHDSL	Overview Configuration Connection Check
	1.	Interface: SHDSL 2
		Status: enabled
		Port Type: Switch-Port VLAN Hybrid
		Role: Central Office (CO)
		Predefined Profile: Reliability
		Extended Mode: Disabled
		PAM: PAM-16 + PAM-32
		Lineprobing: Enabled
		SNR Model: Worst Case
		Target SNR: Normal (6 dB)
		Min. Link Data Rate [kbps]: 192
		Max. Link Data Rate [k0ps]: 5696
		PBO Value: 0
		i bo valde. U
		Set Values Refresh
4.	Select the option "Enable PME Aggregation	Welcome admin SHDSL Overview
	Function" and apply the setting via "Set	Logout
	Values".	► Wizards
		► Information I Enable PME Aggregation Function
		System System SHDSL 1 enabled Central Office (CO)
		vinterfaces SHDSL 2 enabled Central Office (CO)
		Ethernet Set Values Refresh
		→ SHDSL

The 2-wire conductors are thus grouped into one single connection with a higher transmission rate.

5.3 Other Settings for the SHDSL Interfaces

You can also make other settings, like the maximum transmission rate, for example. Information about this is available in the configuration manual "SCALANCE M-800 Web Based Management" at the link.