UniOP to PLC Connection via Modem

This Technical Note contains the information and useful hints required to setup-up the communication between UniOP and a PLC with a Modem connection.

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1. Introduction

This Tech-Note contains an example of a system in which UniOP and a PLC are communicating via Modem.
Details are given on the Modem configuration options necessary for the communication.
The example is based on the following system setup:

PLC	: A-B SLC5/03,
Communication protocol	: DF1 (RS-232 – Programming Port)
Communication Parameters	: Baudrate 9600
	Data Bits 8
	Parity N
	Stop Bit 1

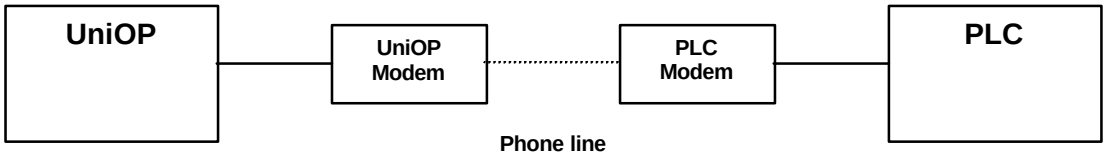

Figure 1. The sample

2. UniOP to Modem Connection

To connect the UniOP to the modem you should use the cable shown below in Figure 2.

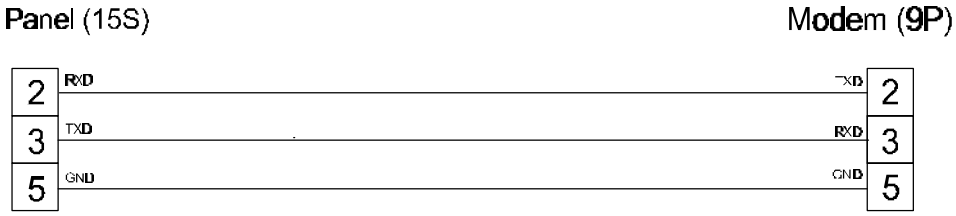

Figure 2. UniOP to Modem cable diagram

3. PLC to Modem Connection

To connect the PLC to the Modem you may use the normal UniOP to PLC communication cable and the adapter for the Modem shown in the figure below:

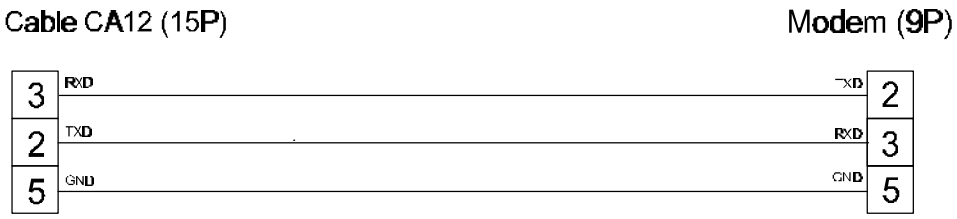

Figure 3. Adapter for Modem to PLC cable

4. Example of Modem Initialization

4.1 Modem on UniOP side

The information contained in the Technical Note TN53 should be used for the general set-up of the system.

The following command sequences have been tested:

AT &F0	Recall factory settings
AT \N1	Disable data compression
AT F8	Limits the maximum modem-modem baud rate to 9600bps.
AT &D0	Ignore the DTR value
AT &W	Store parameters in modem's Flash memory

Use a standard modem cable to connect the personal computer to the modem for setting the initialization parameters.

4.2 Modem on PLC side

The command sequences to configure this modem are the following:

AT &F0	Recall factory settings
AT S0=1	Set the auto answer mode
AT \N1	Disable data compression
AT F8	Limits the maximum modem-modem baud rate to 9600bps.
AT &D0	Ignore the DTR value
AT &W	Store parameters in modem's Flash memory

5. Dialing

To establish the connection between the modems you should use terminal emulator program from the PC, or one of the special Modem Commands available in the Designer. If you are using a terminal emulator program you may simply type the commands to the Modem. Make sure the baud rate is properly set.

When the Modem is on-line disconnect the standar PC cable from the modem and connect it to the UniOP cable adapter.