
Chapter 17. SMS: Short Message Service

The I-8417/8817/8437/8837, iPAC-8447/8847, I-7188EG, I-7188XG, uPAC-7186EG & Wincon-8xx7 controller can integrate with a GSM Modem to support SMS: Short Message Service. This allows user to request information or control something from his own cellular phone to the ISaGRAF controller. Beside, the controller can also send information and alarms to user's cellular phone.

17.1: Hardware Installation

The I-8417/8817/8437/8837 supports SMS since its driver version of 2.24, while version 1.14 for I-7188EG, and version 1.12 for I-7188XG, and version of 3.10 for W-8xx7 (iPAC-8447/8847 & uPAC-7186EG support it since they are released around Q1/Q2, 2008). If your driver is older one, please upgrade the hardware driver to the associate version or a higher version. The driver can be found from the below ICP DAS's web site:

<http://www.icpdas.com/products/PAC/i-8000/isagraf.htm>

The I/O library should be re-installed if yours is older one. Please refer to section 1.2. Or you can refer to Appendix A.2 to simply install "C functions" with the below items.

SMS_test, SMS_get, SMS_gets, SMS_send, SMS_sts
and "I/O complex equipment" : SMS.

The GSM Modem **M1206** (900/1800) is recommended for the ISaGRAF controller since its driver version of I-8xx7:2.47, I-7188EG:1.38, I-7188XG:1.35 & Wincon-8xx7:3.10. You may purchase them from ICP DAS or from your local agent. ICP DAS is not sure for other GSM modems working or not.

Note: Please REMOVE the password setting in SIM card , then plug it into GSM modem.

I-8xx7(COM4/5) W-8xx7(COM2)	GSM cable of M1206 (or GM29)	7188EG/XG:COM3/4 RS232	GSM cable of M1206 (or GM29)
2 RXD	_____ 2 TXD	RXD	_____ 2 TXD
3 TXD	_____ 3 RXD	TXD	_____ 3 RXD
5 GND	_____ 5 GND	GND	_____ 5 GND
4 DTR	----- 4 DSR	DTR (or RTS)	----- 4 DSR
7 RTS	----- 7 CTS	DTR (or RTS)	----- 7 CTS

17.2: A SMS demo example

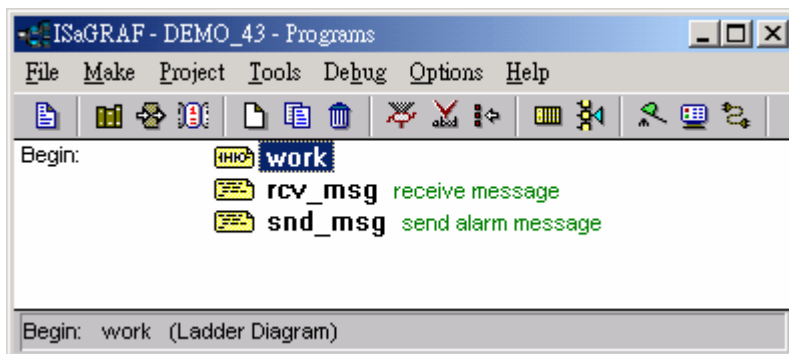
The demo project is located at I-8xx7's demo_43 and demo_43a, please refer to section 11.1 to install it to your ISaGRAF workbench. Or It can be download at ICP DAS's ftp site.

<ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/isagraf/8000/demo/>

Variables :

Name	Type	Attribute	Description
M1	Boolean	Internal	Trigger to send an alarm message when K1 is pushed
M2	Boolean	Internal	Trigger to send a report message when a message is coming
K1	Boolean	Input	Pushbutton 1, connect to push4key
L1	Boolean	Output	Output 1, connect to show3led
L2	Boolean	Output	Output 2, connect to show3led
L3	Boolean	Output	Output 3, connect to show3led
Q1	Boolean	Internal	Test if message is coming
TMP	Boolean	Internal	Temporary usage
SMS_available	Boolean	Input	is SMS available ? connect to SMS - status
T1	Timer	Internal	Blinking time of L1 to L3, init at T#500ms
data	Message	Internal	The coming Message
phone	Message	Internal	phone No. of sender
Date_time	Message	Internal	Message coming date & time in string format
To_who	Message	Internal	phone No of receiver, please use your own No.
Msg_to_send	Message	Internal	Message to send out
Year1	Integer	Internal	Message coming year
Mon1	Integer	Internal	Message coming month
Day1	Integer	Internal	Message coming date
Wday1	Integer	Internal	Message coming week date
Hour1	Integer	Internal	Message coming hour
Min1	Integer	Internal	Message coming minute
Sec1	Integer	Internal	Message coming second
Q1_cnt	Integer	Internal	Message coming count, declared as retained variable
Msg_status	Integer	Internal	Message sending status
TMP_v	Integer	Internal	temporary usage

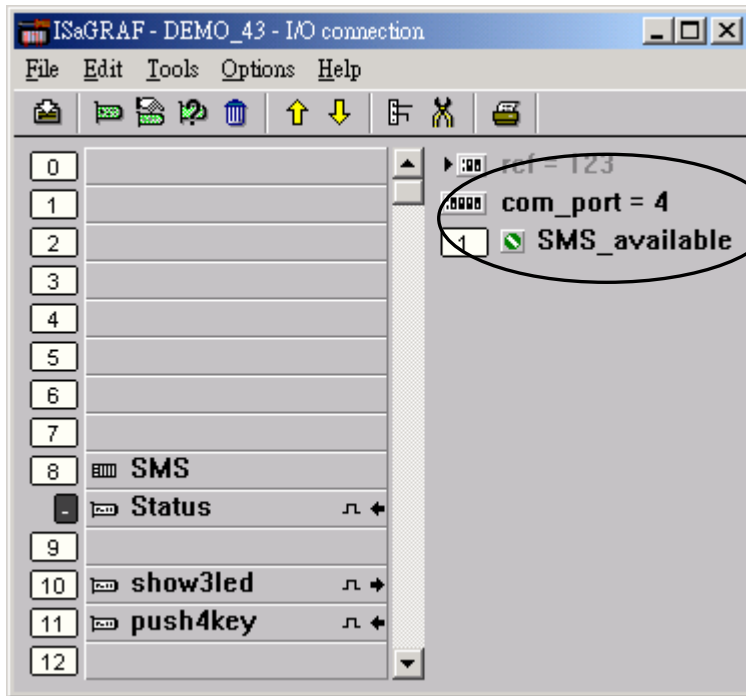
Project architecture :



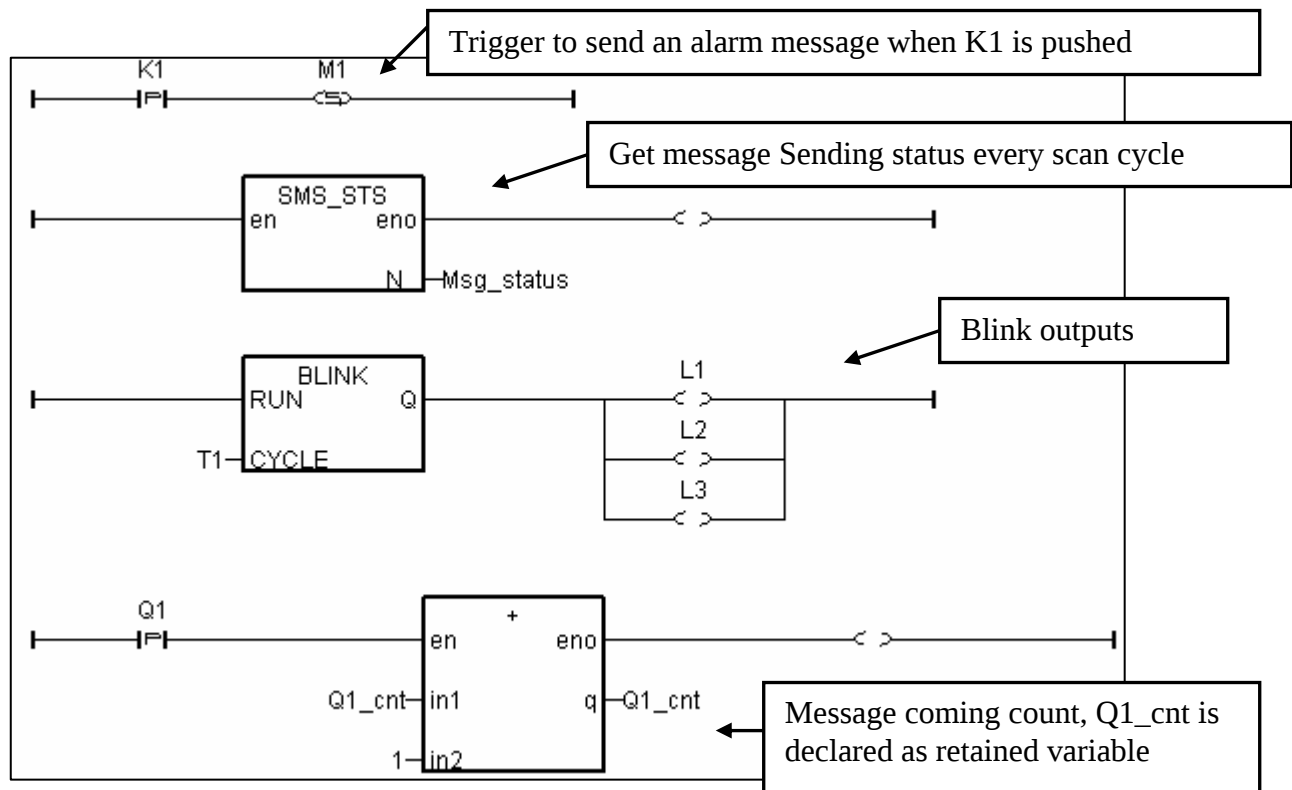
Operation actions:

1. If K1 is pushed, an Alarm message will be sent.
2. If the user send a message in format, for ex. T0200 or T1500 to the controller, the blinking period will change to 200ms and 1500ms. And then the controller will response a report message back to the user.

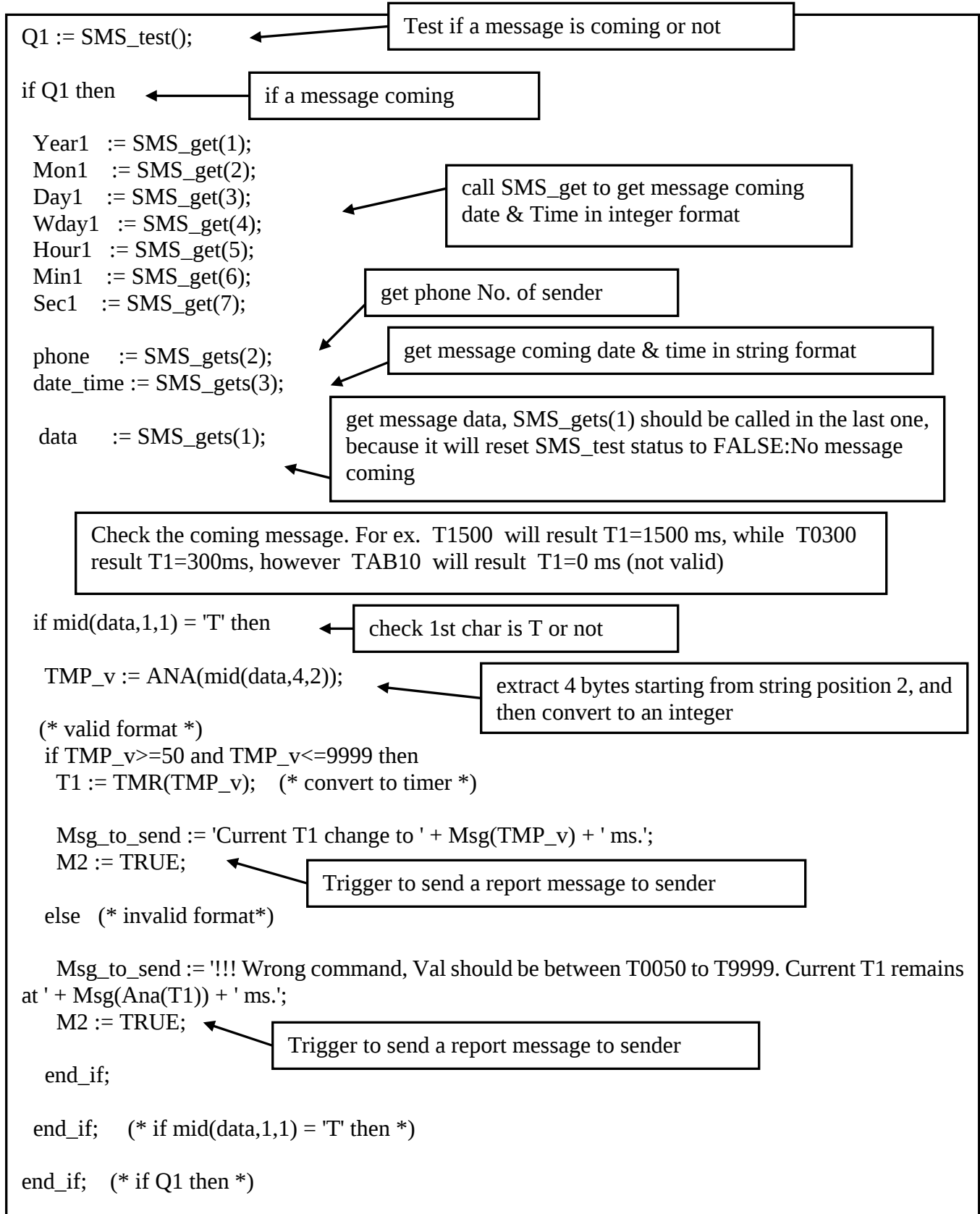
I/O connection:



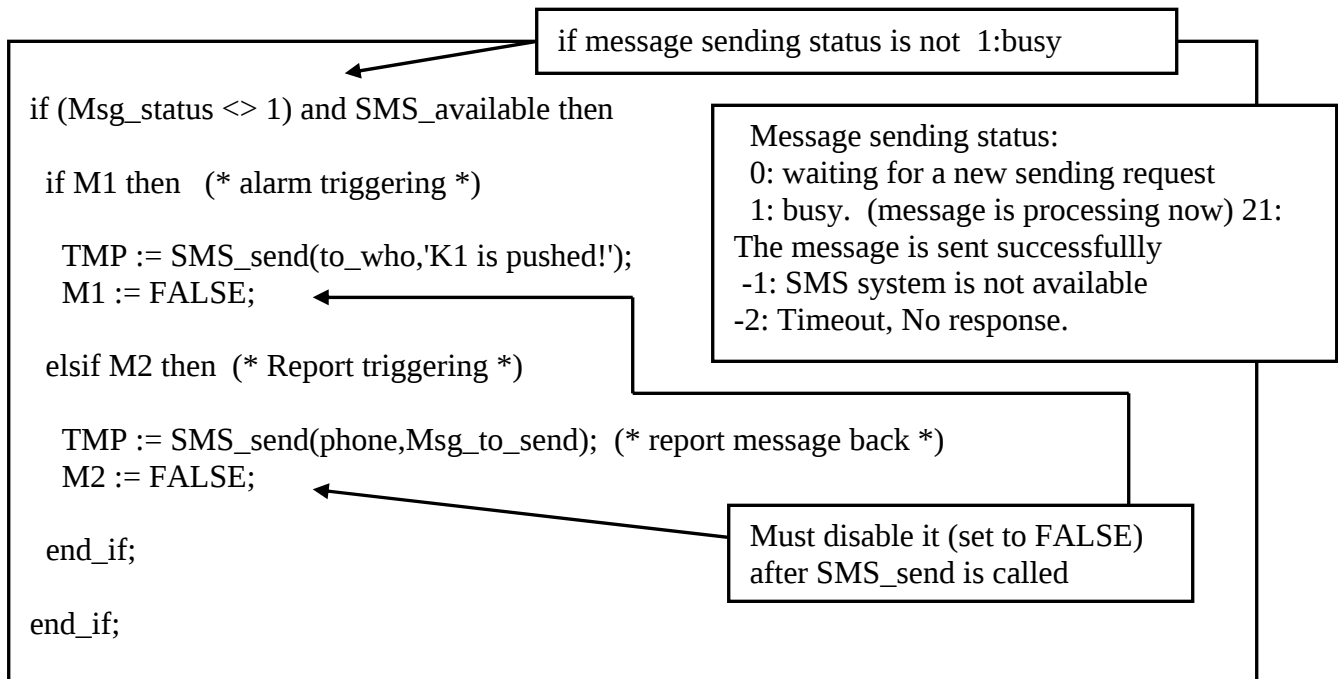
LD program : work



ST program : rcv_msg



ST program : snd_msg



More description of SMS_sts, SMS_send, SMS_test, SMS_get & SMS_gets, Please refer to ISaGRAF's On-line Help. "Library" – "C functions" – "SMS_xxxx"

