

G-4500 Series FAQ

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Q01: What is the PIN code?

A01: The PIN code of SIM card is a four to eight digit code that is used to prevent unauthorized use of a SIM card. Before you use the G-4500, please check the SIM card that isn't had PIN code.

Q02: What are the GPRS and GPS module default baud rate?

A02: GPRS chip default baud rate is 115200 bps.
GPS chip default baud rate is 9600 bps.

Q03: How to use the G-4500 TPC Client to connect Remote TCP Server?

A03: Step1. Here is what you will need:

- GPRS user name - this is provided from your Telecom. CO., LTD.
- GPRS password - this is provided from your Telecom. CO., LTD.
- GPRS APN (Access point name) - this is provided from your Telecom. CO., LTD.
- Remote TCP Server IP
- Remote TCP Server Port

For example: AT&T Telecom. CO., LTD. in America

GPRS user name	WAP@CINGULARGPRS.COM
GPRS password	CINGULAR1
GPRS APN	wap.cingular

Step2.

```
#include "GPRS.h"
struct str_GPRS_setting rGPRS;

sprintf(rGPRS.user_name, " WAP@CINGULARGPRS.COM ");
sprintf(rGPRS.password, " CINGULAR1");
sprintf(rGPRS.ExtraStr, " wap.cingular ");
sprintf(rGPRS.GPRS_server,"1.2.3.4"); //Remote TCP Server IP
rGPRS.RemotePort = 10000; //Remote TCP Server Port
.....
while(1){
    .....
    GPRS_TCPClient(); // must be loop
}
```

© More information about how to connect to Remote TCP Server, please refer to demo and download from:

ftp://ftp.icpdas.com/pub/cd/usbcd/napdos/g-4500/software/demo/gprs_sim300/tcp_client/

Q04: How to enable the gps chip on the g-4500?

A04:

```
X305IO_Init();
X305IO_Set_GPS(1);
/*
int X305IO_Set_GPS(int mode);
mode:
0 : Disable GPS chip
1 : Enable GPS chip
*/
```

Q05: How many sizes of buffer is the COM Port on the G-4500?

A05: It is default that 1024 bytes. If your GPRS datas are more than 1024 bytes, please refer to below method [before installcom fuction](#).

```
SetComPortBufferSize(modem_com, 2000, 5000); // The COM Port of G-4500 is 4.
InstallCom(modem_com, 115200L, 8, 0 ,1);
```

Q06: How to use domain name to connect Remote Server?

A06:

```
#include "GPRS.h"
struct str_GPRS_setting rGPRS;
rGPRS.DNSCFG = 0;
sprintf(rGPRS.DNS_Server, "168.95.1.1");
// The IP that 168.95.1.1 is Chunghwa Telecom Co., Ltd.'s DNS Server in Taiwan.

sprintf(rGPRS.GPRS_server,"www.abc.com"); //Remote TCP Server Domain name
rGPRS.RemotePort = 10000; //Remote TCP Server Port

.....
while(1){
.....
GPRS_TCPClient(); // must be loop
```

}

© More information about how to connect to Remote TCP Server, please refer to demo and download from:

ftp://ftp.icpdas.com/pub/cd/usbcd/napdos/g-4500/software/demo/gprs_sim300/tcp_client/

Q07: How to format the New SD card in the first time?

A07:

Step1. Please download the below website's firmware and upload the firmware to G-4500.

ftp://ftp.icpdas.com/pub/cd/usbcd/napdos/g-4500/software/demo/mmc_fs4/demo2/

Step2. After upload the firmware to G-4500 and run, key in "format" in the 7188xw.exe

```

c:\ 7188XW 1.31 [COM1:115200,N,8,1],FC=0,CTS=1, DIR=C:\Program Files\ICPDAS\MiniOS7_Utility
7188x for WIN32 version 1.31 <2006/03/14> [By ICPDAS. Tim Tsai.]
[Begin Key Thread...][Current set: Use COM1 115200,N,8,1
AutoRun:
Autodownload files: None
Current work directory="C:\Program Files\ICPDAS\MiniOS7_Utility"
original baudrate = 115200!
now baudrate = 115200!

uP-4500 >run #0 Step1.
2000/01/01<0> 00:00:00
[Disk Size=1456012000/01/01<0> 00:00:00

CD PATH or CD to display PWD
DELETE PATH
DELTREE PATH
DIR PATH
FORMAT <routine will prompt for arguments>
HELP
MKDIR PATH
RENAME filename NEWNAME
RMDIR PATH
TYPE filename
SETATTR D:PATH RDONLY|HIDDEN|SYSTEM|ARCHIVE|NORMAL
FILLFILE filename PATTERN NTIMES
LOAD
GET filename
QUIT

MicroSD:FORMAT Step2.
Pres: Y to format media Step3.
Calling media format
Press Y to format the volume Step4.
Format success.

MicroSD>

```

Q08: If the GSM function fails in some unforecast conditions, how to reset modem module?

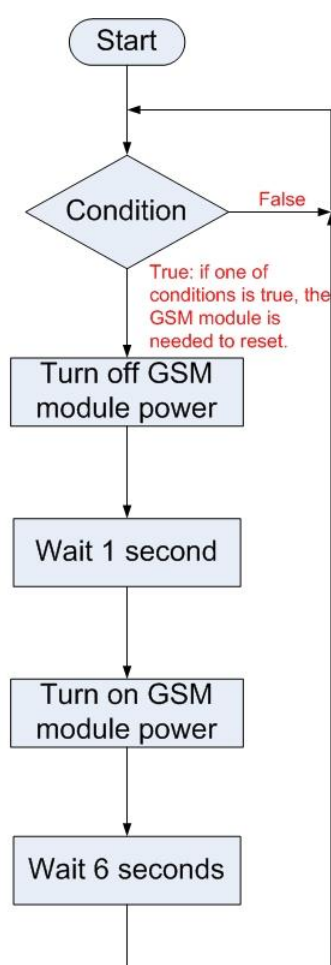
A08:

Because the GSM function of G-4500 under some unforecast cases could fail, we suggest the users to reset modem module of G-4500 in these conditions below.

- 1) Users send an AT command to modem, but don't receive any response.
- 2) The modem can't register to base station. (AT command: **+CREG: 0,0**)
- 3) The led light of GSM/GPRS is always off.

The following steps descript how to reset the modem module in the G-4500 for users.

- Flow chart:



Condition:

- 1) Users send a AT command to modem, but don't receive any response.
- 2) The modem can't register to base station. (AT command: **+CREG: 0,0**)
- 3) The led light of GSM/GPRS is always off.

- How to reset the GSM modem?

```
void GPRS_ResetPWR(void)
{
    //Reset the GSM/GPRS module by controlling power
    GPRS_SetPower(0);
    Delay(1000);
    GPRS_SetPower(1);
}
```

Q09: How to access 32GB SD card?

A09:

Please update SD card's lib to SD_V105 or latest, website as below,
<http://ftp.icpdas.com/pub/cd/usbcd/napdos/g-4500/software/lib/microsd/>,
 Demo (microsd.zip) download from:
<http://ftp.icpdas.com/pub/cd/usbcd/napdos/g-4500/software/demo/>

Q10: Why does it sometimes come out garbled code when using Print() function?

A10:

The maximum buffer of "Print" function are 256 Bytes, if it contains more than 256 bytes it will cause memory overflow, garbled code, or the value of variable changed.

Q11: How to download application into G-4500?

A11:

Please refer to the steps as below,

Step1. Download 7188xw from:

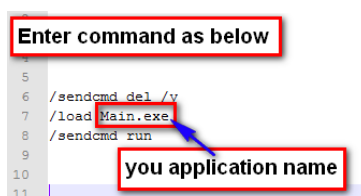
<http://ftp.icpdas.com/pub/cd/usbcd/napdos/g-4500/software/download%20tools/7188xw/>

Step2. Switch of G-4500 change to INIT mode.

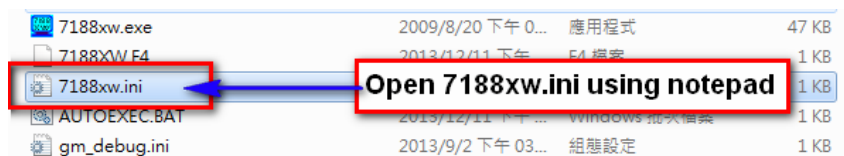
Step3.



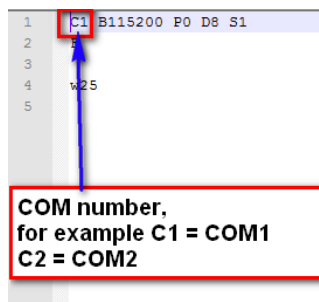
Step4.



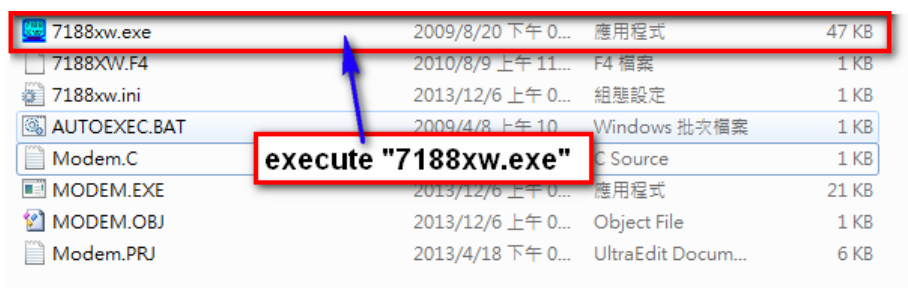
Step5.



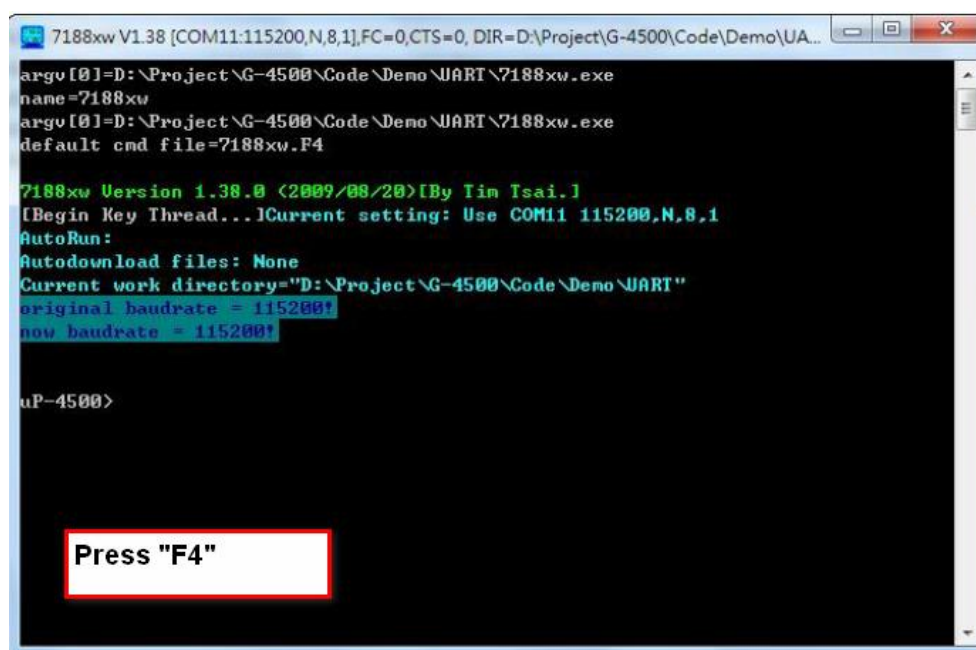
Step6.



Step7.



Step8.



Step9.

```

7188xw V1.38 [COM11:115200,N,8,1],FC=0,CTS=0, DIR=D:\Project\G-4500\Code\Demo\UA...
argv[0]=D:\Project\G-4500\Code\Demo\UART\7188xw.exe
name=7188xw
argv[0]=D:\Project\G-4500\Code\Demo\UART\7188xw.exe
default cmd file=7188xw.F4

7188xw Version 1.38.0 (2009/08/20)[By Tim Tsai.]
[Begin Key Thread...]Current setting: Use COM11 115200,N,8,1
AutoRun:
Autodownload files: None
Current work directory="D:\Project\G-4500\Code\Demo\UART"
original baudrate = 115200!
now baudrate = 115200!

uP-4500>del /y
Total File number is 2, do you really want to delete(y/n)?

uP-4500>LOAD
File will save to 8000:0000
StartAddr-->7000:FFFF
Press ALT_E to download file!
Load file:MODEM.EXE[crc=7440,0000]
Send file info. total 93 blocks
Block 57

```

Step10.

```

File will save to 8000:0000
StartAddr-->7000:FFFF
Press ALT_E to download file!
Load file:MODEM.EXE[crc=7440,0000]
Send file info. total 93 blocks
Block 93
Transfer time is: 3.900000 seconds

uP-4500>LOAD
File will save to 85C5:0002
StartAddr-->8000:5C51
Press ALT_E to download file!
Load file:autoexec.bat[crc=38B4,0000]
Send file info. total 1 blocks
Block 1
Transfer time is: 0.062000 seconds
Finish

uP-4500>run
Receive data from COM port

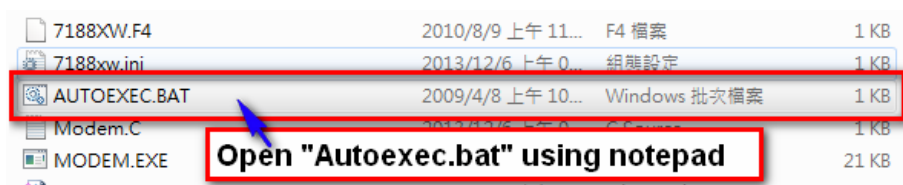
```

Q12: Can G-4500 execute application when G-4500 power on.

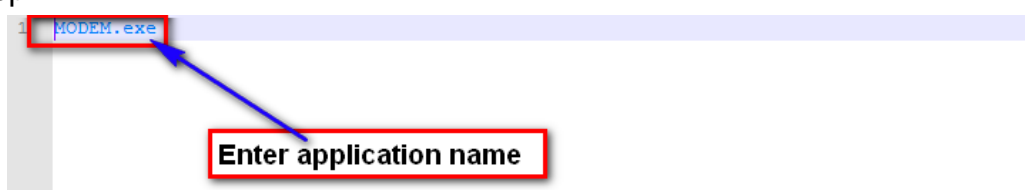
A12:

Please refer to the steps as below,

Step1.



Step2.



Step3.

```

1
2
3
4 /sendcmd del /y
5 /load main.exe
6 /load autoexec.bat ← load "autoexec.bat"
7 /sendcmd run
8

```

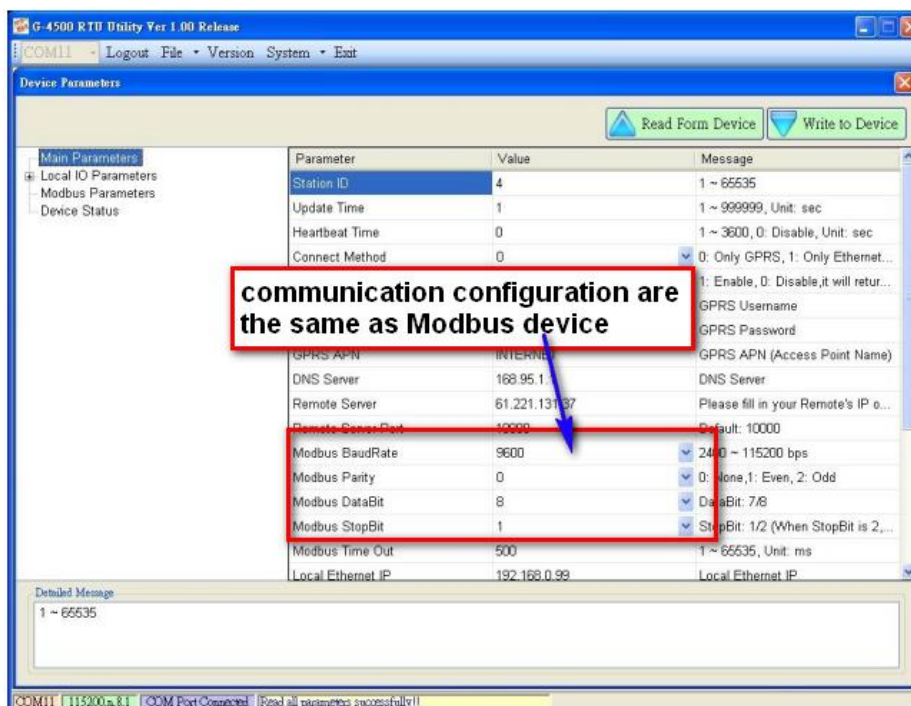
Step4. Download application to G4500

Step5. Switch of G-4500 change to run mode

Q13: How should I do if G-4500 can't access Modbus device when G-4500 execute RTU Firmware?

A13:

Please make sure the UART configuration of G-4500 and Modbus device are the same. Refer to the picture as below,



Q14: What should I do if G-4500 can't connect to the server when using Ethernet demo?

A14:

Please make sure that local IP, Mask and Gateway of G-4500 is correct, please refer to step as below,

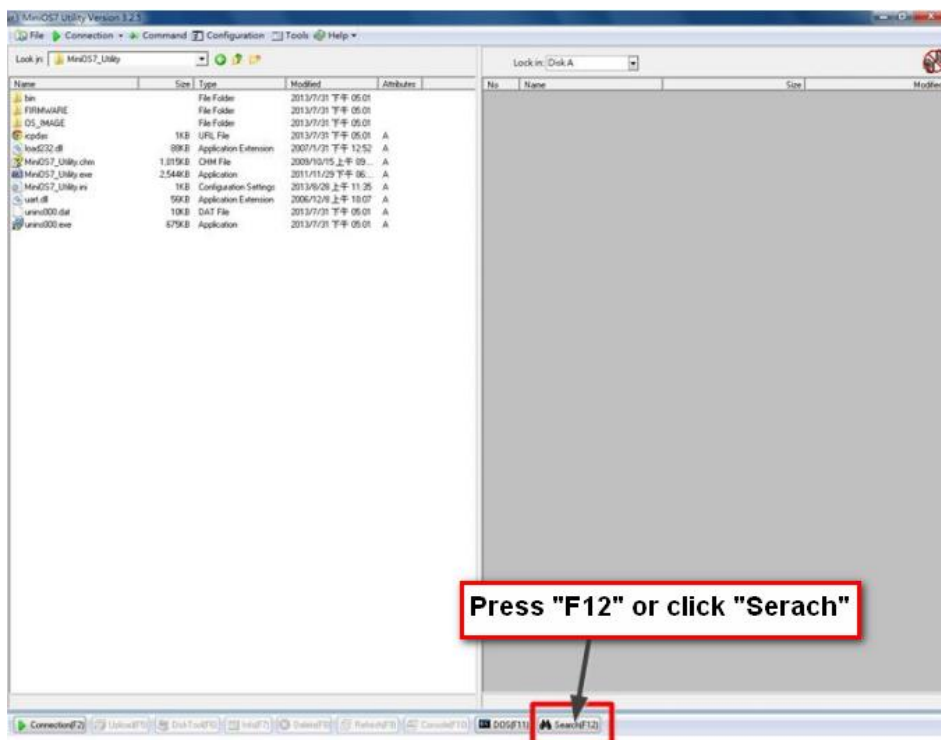
Step1. Execute mini7 utility, download form

http://ftp.icpdas.com/pub/cd/8000cd/napdos/minios7/utility/minios7_utility/

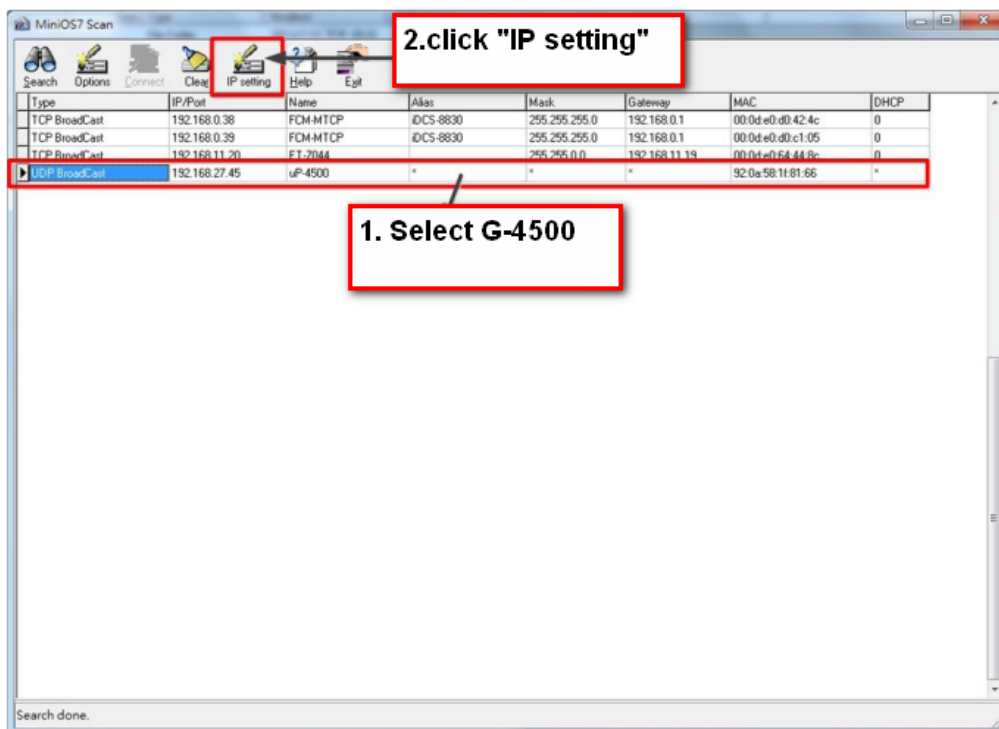
Step2. PC Connect to G-4500, please refer the manual page 8 to page 10, download address:

http://ftp.icpdas.com/pub/cd/8000cd/napdos/minios7/utility/minios7_utility/minios7_utility.pdf

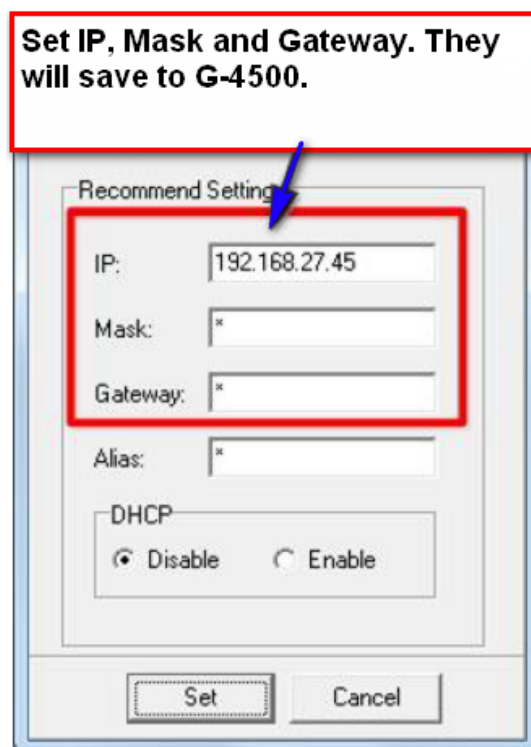
Step3.



Step4.



Step5.



Q15: Can I use GSM module to create a TCP server?

A15:

Yes, but please make sure if your IP of 2G/3G is public.

Demo and lib: <http://ftp.icpdas.com/pub/cd/usbcd/napdos/g-4500/software/demo/>

Q16: Can G-4500 program FTP function via GPRS?

A16:

FTP client need to two socket, but G-4500-2G only one socket, so G-4500-2G cannot support FTP function via GPRS. furthermore, G-4500-3GWA have ten Sockets , so G-4500-3GWA that can support FTP function via GPRS.

Q17: How to refresh WDT by timer on G-4500 platform?

A17:

User can use InstallUserTimerFunction_ms function to refresh WDT. Please refer the following sample code.

```
#include <conio.h>
#include <stdio.h>
#include <malloc.h>
#include <stdlib.h>
#include <string.h>
#include "../lib/GSM.h"
#include "../lib/G4500.h"
```

```
#include "../lib/OS7_COM.h"

//User Timer Function
void timerWDT(void)
{
    RefreshWDT();
}

int main(void)
{
    InitLib(); //-- init

    EnableWDT(); //Enable Watchdog function

    //Call timerWDT function once every 300 ms (WDT timeout:800 ms)
    InstallUserTimerFunction_ms(300, timerWDT);

    //User's main function

    DisableWDT(); //Disable Watchdog function

    StopUserTimerFun(); //Stop timer

    return 0;
}
```

Q18: How to send SMS in different language?**A18:**

1. For example, use SMSDemo to send SMS in Russian.
Link to following URL: <https://www.branah.com/unicode-converter>
2. The SMS content transcoding into Unicode (ex.здравствуйте):
 - (1) Put the SMS content into “Unicode text” block.
 - (2) Select “Remove \u”
 - (3) Click “Convert”
 - (4) and you will see the Unicode of SMS content in “Unicode” block.

Unicode Converter - Unicode, decimal, and text converter

Unicode text (Example: a 中 Я)
 Здравствуйте

Convert whitespace characters

Unicode (Example: \u0061 \u4e2d \u042f) Remove \u
 043704340440043004320441044204320443043904420435

3. Added “\x” in front of each byte, and stored in the SMS content variable.

```

SendMsg.mode = GSM_UCS2;
memcpy(SendMsg.msg, "\x04\x37\x04\x34\x04\x40\x04\x30\x04\x32\x04\x41\x04\x42\x04\x32\x04\x43\x04\x39\x04\x42\x04\x35", 24);
SendMsg.dataLen = 24;

```

4. This value indicates the number of bytes of the SMS content, please modify it.

```

SendMsg.mode = GSM_UCS2;
memcpy(SendMsg.msg, "\x04\x37\x04\x34\x04\x40\x04\x30\x04\x32\x04\x41\x04\x42\x04\x32\x04\x43\x04\x39\x04\x42\x04\x35", 24);
SendMsg.dataLen = 24;

```

5. Compile this project and execute.