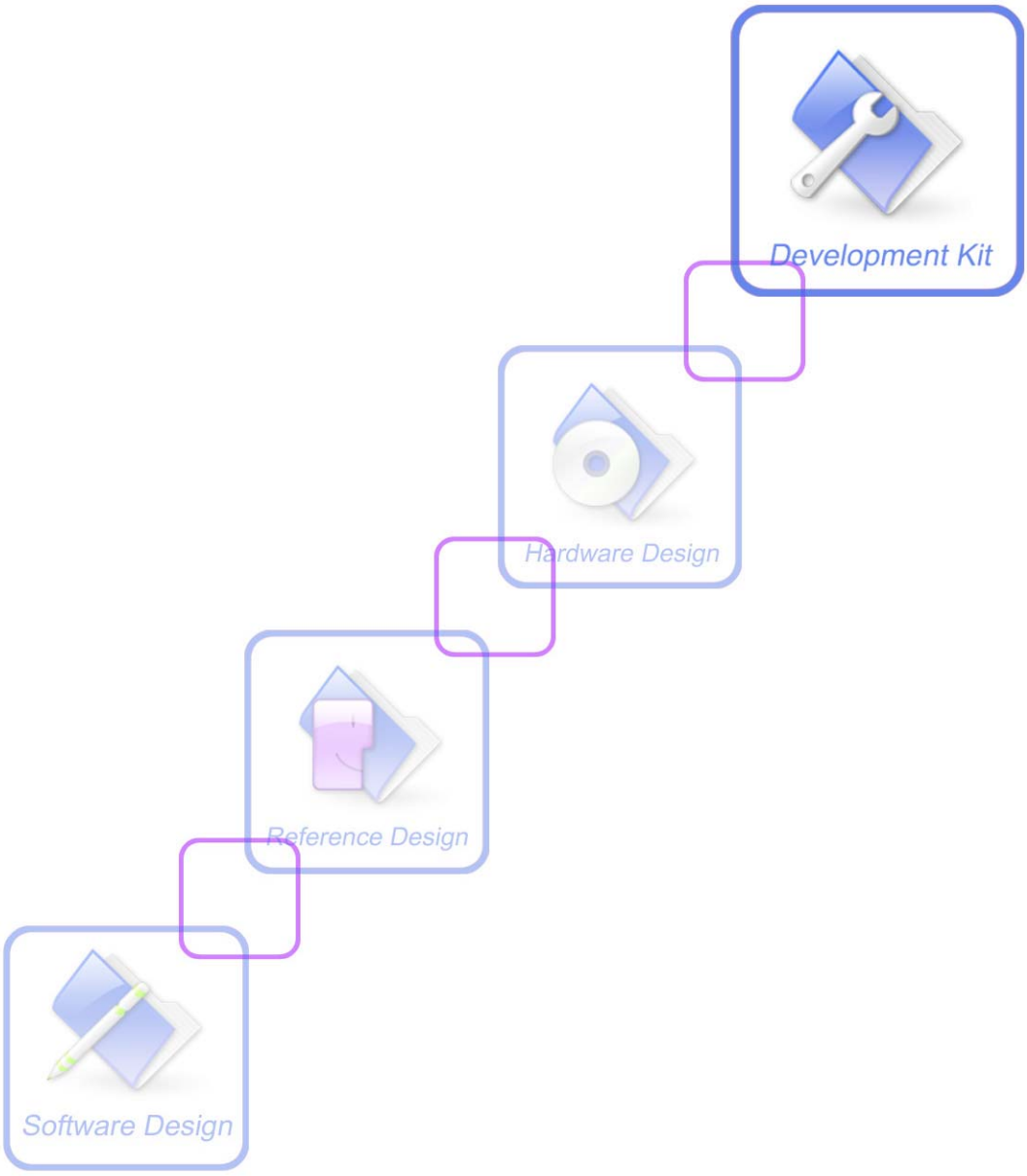
SIM900 SpyTracer User Guide V1.00



1 SpyTracer set up file

setup_SpyTracerV2-v2.8.0_Patch.exe

setup_SpyTracerV2_v2_8_0_Patch.rar

2 Hardware Configuration

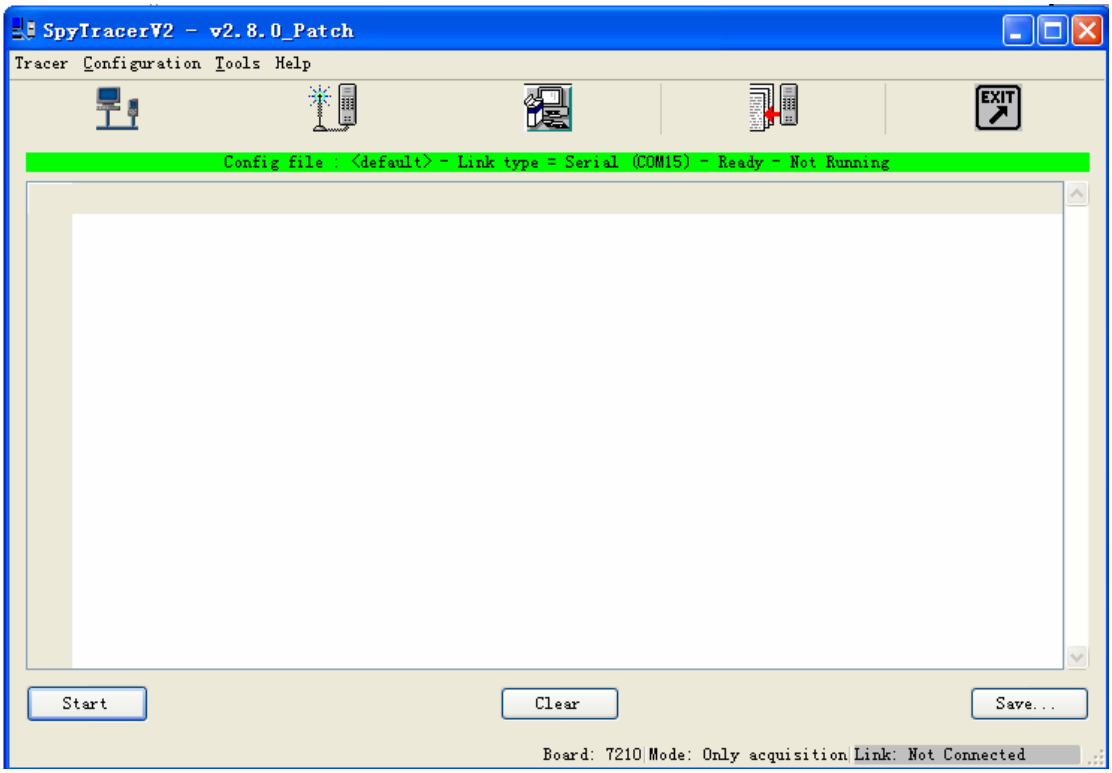
Before using the debug tool, you should connect the serial port to the PC correctly. The SIM900 provides two unbalanced asynchronous serial ports. The main serial port is the normal port that can use the AT command, the debug serial port is the debug port. The **debug serial port** supports the Trace function.

The GSM module is designed as a DCE (Data Communication Equipment), following the traditional DCE-DTE (Data Terminal Equipment) connection, the module and DTE are connected through the following signal. Under normal circumstance, connect the **debug serial port** to your PC serial directly while you are using the EVB of SIMCOM.

Note: When you are not using the EVB of SIMCOM, you should notice that module only supports the TTL level. You should add the level converter IC between the DCE and DTE, if you connect it to the PC.

3 STEP BY STEP

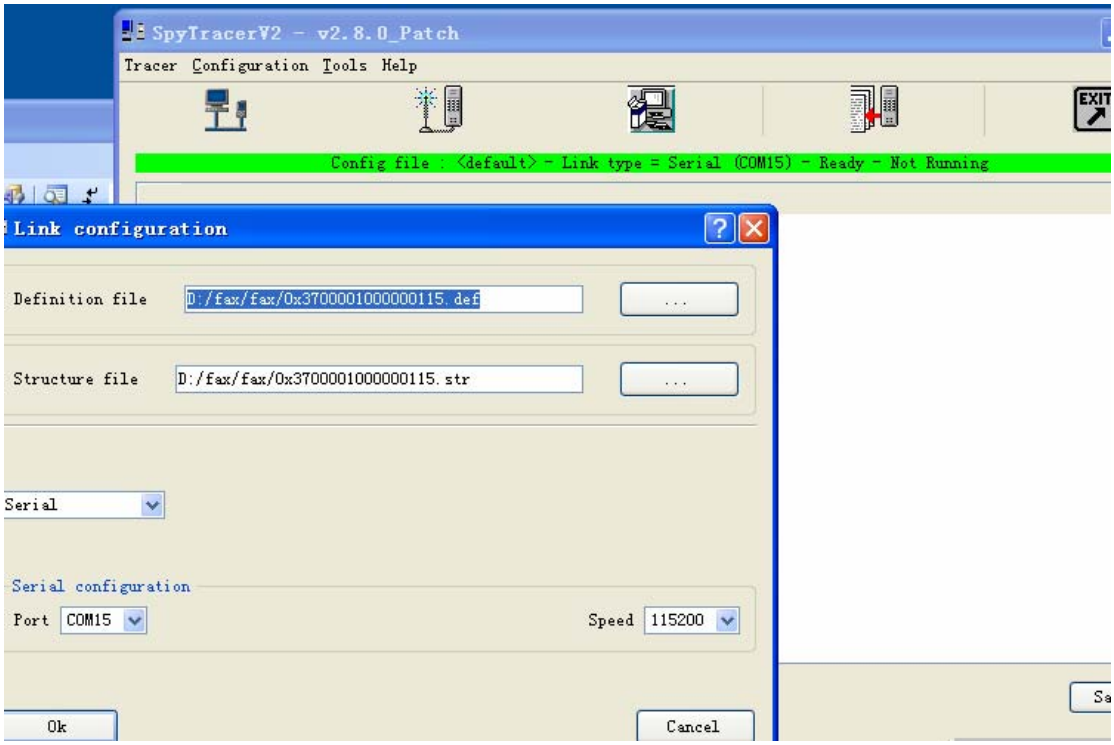
1 Run “SpyTracerV2” and you will see the interface:



NOTE: When you firstly use this software, above green color bar is red because of absence of configuration files.

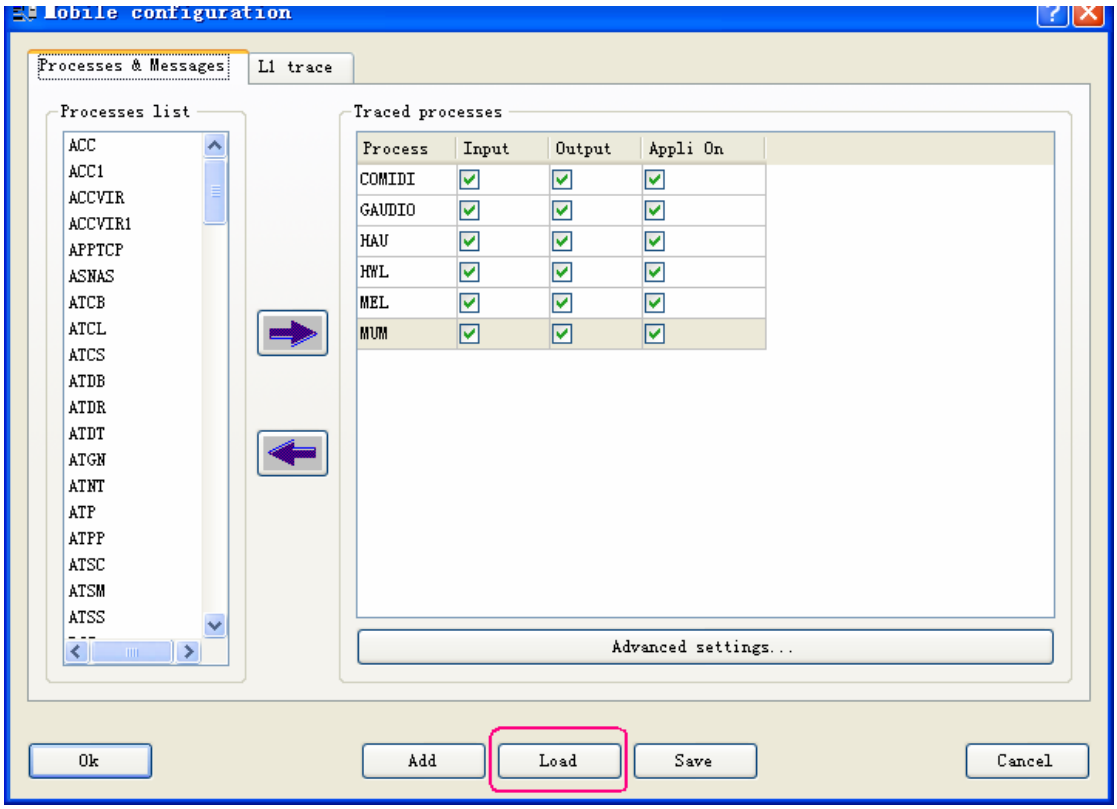
2. Click  for adding configuration files.

Firstly, load the definition file and structure file.
Secondly, set the corresponding COM port on your PC and 'Speed' to 115200.
You will see picture as followed:



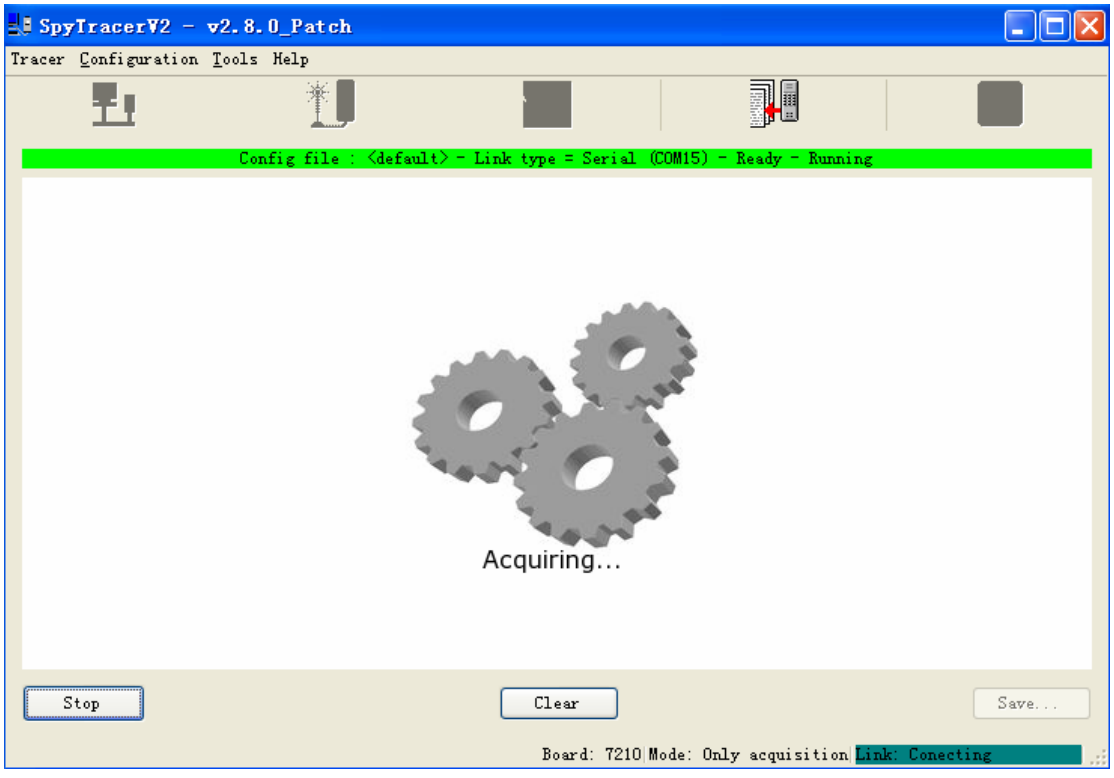
Note: Definition file and structure file are different from firmware build version. Be sure the right definition file and structure file are loaded according to the firmware version in module.

3 Click the  for "Mobile configuration". Load the signal filter. Normally, SIMCom provides '*.enc' file to be loaded as the signal filter configuration defining the types of signal to be captured.



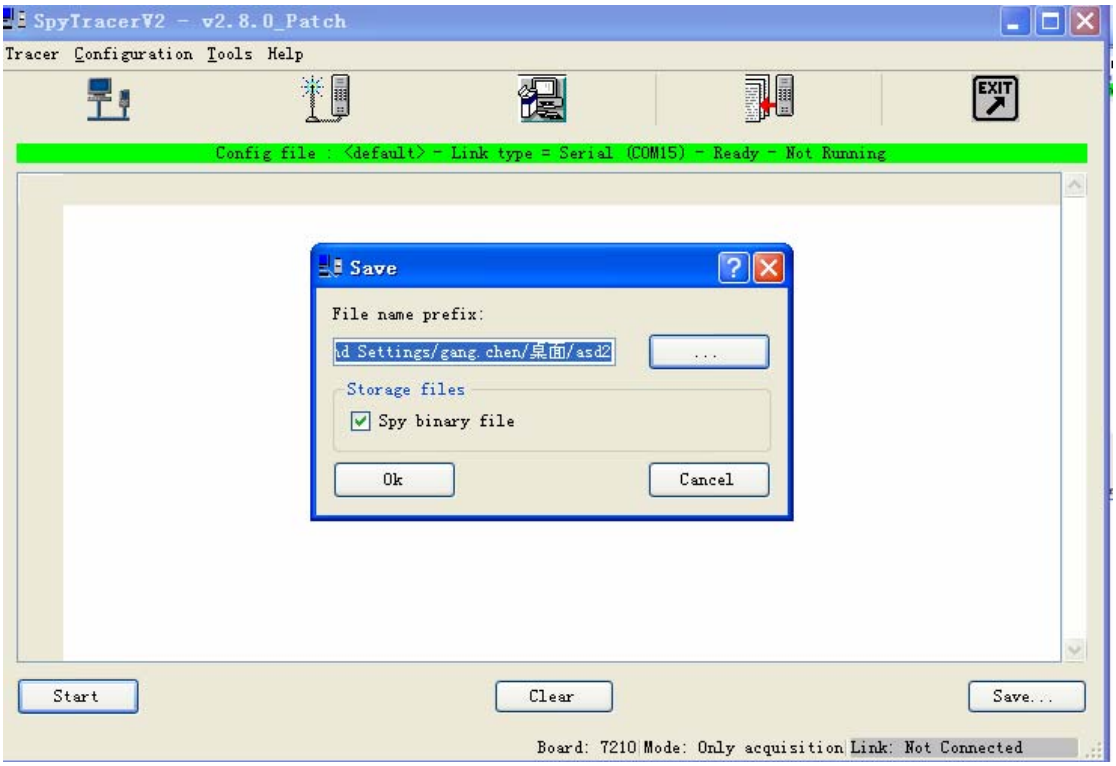
Note: type of trace can be found at the end of the doc

4 Click the “Start” button on the left part, you will see picture as followed:



5 Power on SIM900, **SpyTracer** will start to capture the log

6 Click the “Stop”, and “Save”, and we will save the captured log file. You will see picture as followed:



4 type of trace

Voice call	
MO/MT call failure	**ATCL ATP SPC CC CMM MMM RR CMR**
Call forwarding failure	**ATCL ATSC ATP ATSS SPC CC CMM MMM RR SSCMR**
Multiparty call failure	**ATCL ATSC ATP ATSS SPC CC CMM MMM RR SSCMR**

Network	
Cannot register	**ATNT ATP SPN MMM GMM CMM RR**
Mobility	**ATNT ATP SPN MMM GMM CMM RR**
PLMN selection	**ATNT ATP SPN MMM GMM CMM RR**

SIM	
SIM detection failure	SMCPROC EEPROM SAP

SMS	
SMS MO/MT failure	ATSM ATP SPM CC CMM MMM RR SMS
List/read SMS failure	ATSM ATP SPM SMCPROC EEPROM SAP SMS
Fail to save message into SIM or ME	ATSM ATP SPM SMCPROC EEPROM SAP SMS

Phonebook	
Initiate phonebook failure	ATDR ATP SPD SMCPROC EEPROM SAP ACC
Phonebook operation failure (read, write & erase)	ATDR ATP SPD SMCPROC EEPROM SAP ACC

Fax	
Operation failure	ACL ATP ATCL SPC DCM DSL FAX CC CMM MMM RR

SIM Tool Kit	
Operation failure	ATCS ATP SPS STK

CMUX	
DLC init failure	MUX MIS ATP AGN

Data call (CSD)	
Fail in CSD call establishment	DCM SPC CMR CC MMM CMM L2M L1A L1S DSM RLP MIS ATP ATDT DSL RR
Call drops	DCM SPC CMR CC MMM CMM L2M L1A L1S DSM RLP MIS ATP ATDT DSL RR
transfer rate	DCM SPC CMR CC MMM CMM L2M L1A L1S DSM RLP MIS ATP ATDT DSL RR

GPRS	
Fail in GPRS attachment	ATGN ATNT ATP SPN SPG MMM GMM SM SMR SMM
Fail in PDP context activation	ATGN ATNT ATP SPN SPG MMM GMM SM SMR SMM
Download speed	SPN SPG SM SMR SMM DADASVC SN RLD RLP RLU MAC

I2C	
	NO message change

TCP IP	
TCP data transmission	ATCS ATP DATASVC IPSTACK MIS DSL PPP PPPS DNR
UDP data transmission	ATCS ATP DATASVC IPSTACK MIS DSL PPP PPPS DNR

Flow Control	
Hardware flow control	ATGN ATP MIS DSL
Software flow control	ATGN ATP MIS DSL

Audio	
Echo	GAUDIO HAU ATP
Rx/Tx Gain	GAUDIO HAU ATP
Side Tone	GAUDIO HAU ATP

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