

SIM900_SIMDevIDE_ Application Note_V1.01





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Revision history

Revision	Date	Description of change	Author
1.00	2010-09-06	Initial	MXN
1.01	2012-02-08	Update	Chenyang

SCOPE

This document describes how to use the IDE tool to develop user's own application. Examples are also given for reference. This document can be used for SIM900 serial modules, like SIM900, SIM900D, SIM900B and SIM900A.

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1 Introduction

SIMDevIDE is an IDE tool developed by SIMCom to integrate its core Embedded AT environment with customer's application development process. SIMDevIDE allows customers to edit, compile, link core libraries and download MOT file effortlessly. SIMDevIDE works with all versions of Windows.

2 Getting Started

Before installing SIMDevIDE tool, user should install arm complier tool first.

2.1 Install SimDevIde

Uncompress the rar file (e.g."1137B02V01SIM900A64_ST_EAT.rar"). Execute installation file (e.g. "SIM900ADevIDE V1.01 (1137B02V01SIM900A64_ST_EAT).exe") and follow the install instructions. After completion of the installation, click the desktop shortcut icon to start SIMDevIDE.



Figure 1

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2.2 Set Compiler Environment

1. Choose "Options->Compiler option" menu.

2. Confirm complier tool path. If it is not default path, navigate to the correct path by click "…" button.

Compiler		X
RVCT22LIB:	C:\ARM\RVCT\Data\2_2b576\lib	
RVCT21TOOLS:	C:\ARM\RVCT\Programs\2_2b616	
RVCT22INC:	C:\ARM\RVCT\Data\2_2b576\include\windows	
MACRO DEFINE:		
	OK Cancel	

Figure 2

Note: "*RVCT21TOOLS*" *is the path compiler tool with version number* 2_2*b*616 *and* "*RVCT22INC*" *is the path of standard lib with version number* 2_2*b*576.

2.3 Create a new project

- 1. Choose "File->New" menu.
- 2. Type in the name of the project in the "Project name" box.
- 3. Select a demo project based on the type of the module used for the project.

New	×
Projects Files	
Project name:	
Copy From Project:	
=====Please Select example project====== 💌	
OK Cancel	ı

Figure 3

4. Press "OK" then a new project folder is created automatically in the path "...\SIM900DevIDE\yourproject".

5





Figure 4

2.4 Add Files to the Project

1. Choose "File->New" menu, select "Files" tab.

New	×
Projects Files	
🔽 Add to project	
pjt1	•
File:	
Lo <u>c</u> ation:	
C:\SIM900ADevIDE\pjt1\code	<u></u>
	OK Cancel

Figure 5

6

2. Add source file according to its type (header/code), and select its location appropriately.



New	X
Projects Files	
✓ Add to project	
pjt1	•
File:	
test1. c	
Lo <u>c</u> ation:	
C:\SIM900ADevIDE\pjt1\code	
	OK Cancel

Figure 6

3. Press "OK", the file is added to the project successfully.



Figure 7

7

2.5 Add a Global Macro

- 1. Select "Options->Compiler Option" menu.
- 2. Type the macros in the "MACRO DEFINE" box, separate them with comma.



Compiler		×
RVCT22LIB:	C:\ARM\RVCT\Data\2_2b576\lib	
RVCT21TOOLS:	C:\ARM\RVCT\Programs\2_2b616	
RVCT22INC:	C:\ARM\RVCT\Data\2_2b576\include\windows	
MACRO DEFINE:	SIMCOM_FTR, SIMCOM_EMBEDDED_AT	
	OK Cancel	

Figure 8

3. Press "OK", then the macros are added in the file ".. $SIM900DevIDE\pit1\mak$ general features.opt".

2.6 Build an Existing Project

1. Choose "File->Open Project" to open an existing project.

打开					? ×
查找范围(<u>I</u>):	🗀 pjtl		•	£ 	
ainc Code					
amak					
pjcr.proj					
文件名 (M):	pjt1. proj			打开	0)
文件类型 (I):	Sim Project file	es (*.proj)		- 取消	<u>ا</u>

Figure 9

8

2. Select "Build->Build All" menu.





Figure 10

3. If compile is successful, the output files "pjt1.cla", "pjt1.elf", "pjt1.map", "pjt1.sym" are created in "..\SIM900DevIDE\pjt1\output\".

2.7 Download to SIMCom Module

1. Select "Build->Download" menu.

2. Configure the options as below. It is recommended to use the default value for the options "Baud Rate" and "FileCount".

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SIM900 Series download Tools Customer 1.3	Select module type
SERIAL Download Target Port Baud Rate FileCount ReadBufferSzie SIM900A COM13 460800 TWO 2048 Download File Core File C:\SIM900ADevIDE\EmbatSIM\gsmos\coreSW\rvctcore	Confirm the serial port number in user's PC's Device Manager.
Time 00000000 Size App File C:\SIM900ADevIDE\pjt1\output\pjt1.cla Time 003E0000 Size Erase Type: Erase All Flash	Select the core file in the path "\SIM900ADevI DE\EmbatSIM\gs mos\coreSW\rvctc
Flash Type Start Download Stop Download	Select the application file created in the path "\SIM900ADevI
0% Exit	

Figure 11

3. Download user's application to the module by pressing "Start Download" button.

Note: If user only needs to download the application file, set the "File Count" option to "ONE" and "Erase Type" to "Erase User Data and Code".



2.8 Debug Process

 Enable debug tool by adding "ebdat7_00EnterDebugMode()" function in customer's program code. See "SIM900_Embedded AT Application Note_V1 00" for the details of this function.
Set debug port and baud rate by selecting "Project->COM Setting...".

_			
C	OM Setting		>
	-Debug COM-		
	Port:	COM1	•
	Baud:	115200	•
		OK OK	Cancel

Figure 12

3. Select the "Debug" tab of output window. Then select "Build->Debug Start" to start. From the debug window, it shows that the debug port is opened successfully.

* Open COM Successfully!	
dow	
an with	_
Build Debug Find in Files	
Ready	Folding level: 1 Style: 0 Line: 67, Col: 1, Character: 2085 NUM ///

Figure 13

4. Power on the module, the customer's program will be running on the module, then debug information will be printed in debug window via debug port which is set as instructed above.



Figure 14

5. Stop debugging by selecting "Build->Debug Stop".



×	ÿ ÿ]
l	<< <entry customer="" task="" work="">>> Sprintf 9 : 3, 4, 4</entry>	
ut Window	sscanf 3 para: 9, 3, 4 <<<<< <eat begin="" loop="" task="" work="">>>>>eat1_02GetEvent in eat1_02GetEvent OUTEVENT_MODEMDATAOUTPUTDATA TYPE: 0x0eat1_02GetEvent ineat1_02GetEvent OUTeat1_02GetEvent in eat1_02GetEvent OUTEVENT_MODEMDATAOUTPUTDATA TYPE: 0x0eat1_02GetEvent in eat1_02GetEvent OUTEVENT_MODEMDATAOUTPUTDATA TYPE: 0x0eat1_02GetEvent in Close COM Successfully!</eat>	
Outp	Build Debug Find in Files	
Rea	ady Folding level: 9 Style: 9 Line: 999, Col: 999, Character: 999 OVR NUM	1

Figure 15



Contact us: Shanghai SIMCom wireless solutions Ltd. Address: Building A, SIM Technology Building, No. 633 Jinzhong Road, Shanghai, P. R. China 200335 Tel: +86 21 3252 3300 Fax: +86 21 3252 2030 URL: www.sim.com/wm