

SIM TOOL KIT

APPLICATION PROGRAMMING INTERFACE version 4.0

Manual for System Integrator and Software Developer

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REVISION HISTORY

<i>EDITION</i>	<i>ISSUED DATE</i>	<i>DESCRIPTION</i>
1 st	1 st of April, 2006	Draft release
2 nd	8 th of April, 2006	Added SMSSentDisplay()
3 rd	15 th of June, 2006	Release version 1.3
4 th	24 th of July, 2006	Remove SMS API from manual
5 th	27 th of September, 2006	Release version 1.4
6 th	26 th of November, 2006	APPENDIX 1: Using COM Components from Visual Studio .Net Directly added
7 th	30 th of July, 2007	Minor modification
8 th	3 rd of September, 2007	Version 2.0 released
9 th	31 st of October, 2007	Version 2.1 released
10 th	20 th of December, 2007	Version 2.3 released
11 th	27 th of February, 2008	FAQ section added
12 th	15 th of March, 2008	Version 3.0 released
13 th	3 rd of April, 2008	Version 3.1 released
14 th	6 th of June, 2008	Version 4.0 released
15 th	29 th of July, 2008	Minor addition to section of "warranty and support"

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DEFINITION

1. STK MODEM – a GSM modem that is certified to use STK API.
2. SIM APPLICATION – an application that resides in the SIM card; usually the application is “menu” driven. Example of SIM applications are top-up of prepaid account, mobile banking, information on demand, etc.
3. SOFTWARE APPLICATION – a Windows programme residing in computer.
4. SOFTWARE PROGRAMME – same meaning as “SOFTWARE APPLICATION”.

INTRODUCTION

API TYPE: ActiveX DLL component (Component Object Model) for Windows

ActiveX Name: MobitekSTK4.dll

Version: 4.0

The API contains 3 classes:

- SIMToolKit – SIM Tool Kit
- SMS – Short Message Service
- USSD – Unstructured Supplementary Service Data
- Phonebook – Phonebook that stores name and number

Scope of Manual: This manual only covers the ***SIMToolKit*** class. For information on the ***SMS, USSD and Phonebook*** classes, please refer to the manual, “*SMS API v5 Manual.chm*”.

Pre-requisite:

1. System integrator, and software developer must possess programming skill, and knowledge in making reference to DLL file.
2. Any programming language that can use ActiveX DLL or COM such as:
 - 2.1 Visual Basic
 - 2.2 Visual Basic .Net
 - 2.3 Visual C++
 - 2.4 Visual Studio .Net
 - 2.5 Cold Fusion
 - 2.6 Any programming language that can call *MobitekSTK4.dll*
3. Operating System: Windows 98, 2000, XP, and Server 2003

FEATURE

1. Software developer can develop their own user interface or software application that can access and interact with the *SIM application* residing in the SIM card.
2. Software application can obtain menu items from *SIM application*.
3. Software application can select menu items.
4. Software application can obtain response from *SIM application*.
5. Software application can submit data to *SIM application*.
6. Software application can instruct *SIM application* to send out a SMS.
7. Software application can obtain status of *SIM application*.
8. Software application can stop a session of *SIM application*.

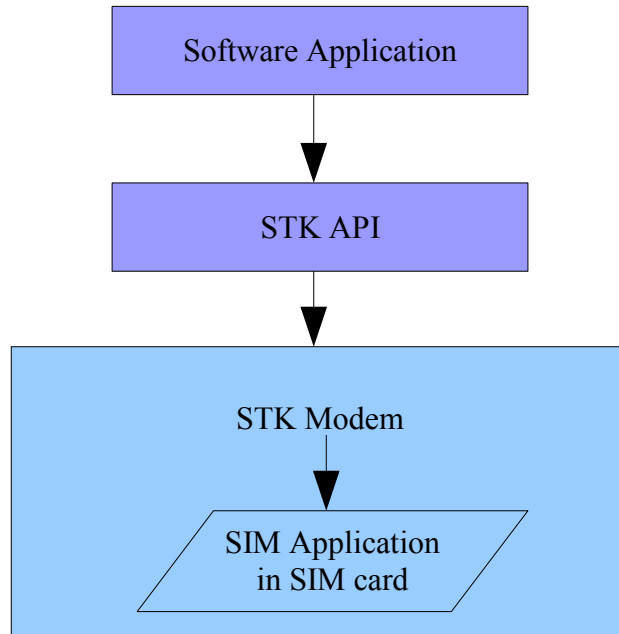
BENEFIT

1. To automate a top-up or reload process such as *Maxis e-load*, and *Digi Flexi e-load*.
2. To integrate multi-level marketing system with *SIM application*.
3. To integrate customer relationship management system with *SIM application*.
4. To integrate e-commerce system with *SIM application*.

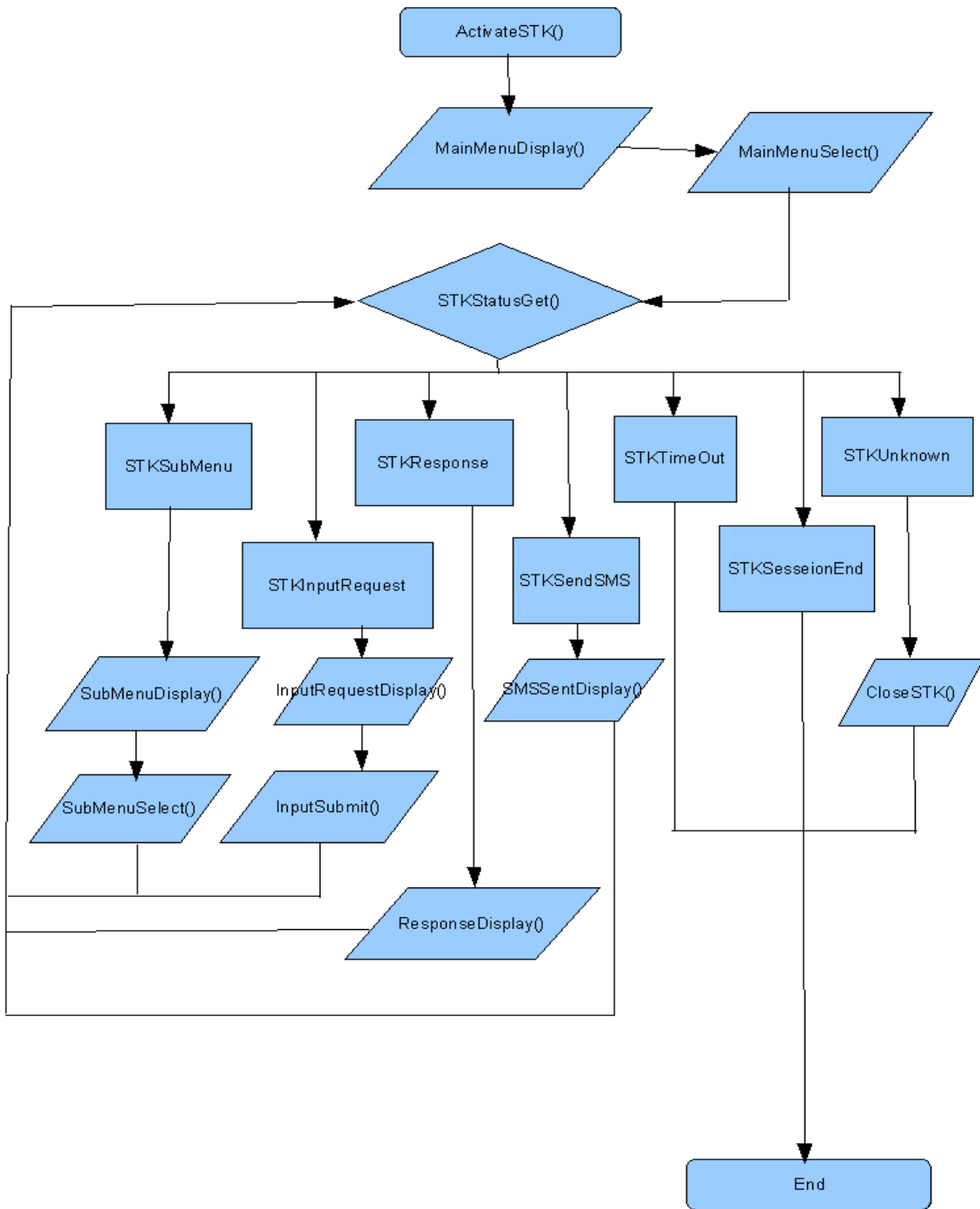
LIMITATION

1. STK API cannot load any application into SIM card.
2. STK API is not a development tool to develop *SIM application*.
3. STK API cannot change, modify, edit, or delete the menu in the SIM.
4. STK API does not work in *Vista* and *Windows 64 bit*.
5. STK Modem (and STK API) does not support USIM (3G SIM or 128k SIM).

OVERVIEW OF SOFTWARE ARCHITECTURE



SECTION 2: STK API FLOW CHART



STK API must be used strictly according to the above flow. If the above flow is not followed, then there will be errors, or incomplete process will occur. If this happen, SI/SD must call StopSTK(), and ActivateSTK(), and restart the whole process again from the beginning.