



Customer Release Note

Open AT[®] SDK v4.21b

Reference: **WM_DEV_OAT_CRN_027**

Revision: **001**

Date: **November 5, 2008**

Cellular Modem (AT) Firmware

Embedded Applications (C/Lua)

Integrated Development Environment

Real Time Multitasking OS

Embedded Plug-Ins



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Version **001**
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Document Information

Revision	Date	List of revisions	
001	November 5, 2008	Official Release	

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1 Introduction

1.1 Related Documents

[1]	Open AT ADL Guide for Open AT v4.20	WM_ASW_OAT_UGD_031
[2]	Open AT® IP Connectivity Development Guide	WM_DEV_OAT_UGD_021-006
[3]	FW 6.62A Release Note	WM_PGM_SWFO_CRN_009
[4]	Open AT® Gti User Manual	WA_DEV_GTI_UGD_001-004
[5]	Open AT Gti v720 Customer Release Note	WA_DEV_GTI_DVD_015
[6]	Development Kit User Guide	WM_DEV_C-GPS_UGD_001
[7]	eRide GPS Core Interface	WM_DEV_C-GPS_IFS_003
[8]	Open AT® SDK V4.21a Customer Release Note	WM_DEV_OAT_DVD_302

1.2 Delivered Version Definition

This definition lists all modifications since the Open AT® SDK v4.21a Release.

1.3 Correction Severity Levels

The *Severity* values have the following meaning:

- 1: Critical
- 2: Major
- 3: Minor
- 4: Improvement

1.4 Open AT® SDK v4.21b Content

- Open AT® IDE v1.03 built on Eclipse™
- Open AT® OS v4.20
- Open AT® FW v6.62A
- Wavecom TCP/IP and Internet v3.00 Plug-Ins version
- Open AT® GTi v720 Plug-In
- Open AT C-GPS V100 Plug-In

2 Open AT® SDK v4.21b New Services and Modified Interfaces

2.1 Open AT® TCP/IP and Internet Plug-Ins

The Open AT® V4.21b SDK supports the Open AT® TCP/IP Plug-Ins.

This service is dedicated to all users of Open AT® OS, who need to communicate over UDP, TCP socket layers, either through wireless links such as GPRS and GSM CSD or wired links such as UART and CMUX virtual ports that are provided within Wavecom Wireless CPUs.

The WIP Plugin handles UDP / TCP API / FTP API / HTTP API / SMTP API / POP3 API / DOTA API / Ethernet API.

List of WIP Samples :

- WIP Soft (new name of AT Wrapper) (Private Sample)
- POP3
- SMTP
- ftp2ftp
- ftp_list
- ftp_put
- tcp_client
- tcp_server
- udp_client
- udp_server
- http_get
- DOTA
- ethernet

The Samples\common are source files common to all delivered samples.

For more information, please refer to Open AT® IP Connectivity Development Guide [2].

2.2 Driver for CMUX tool

The driver for Cmux tool version V2600 is available in folder Drivers/CMUX

2.3 Open AT[®] GTi Plug-In

The Open AT[®] SDK v4.21b supports the Open AT[®] GTi v720 Plug-In, usable to design graphical applications.

For more information, please refer to Open AT[®] GTi documentation [4] and [5].

3 Open AT[®] v6.62A Firmware

3.1 Delivery

The Open AT[®] Firmware v6.62A is delivered on the SDK for all Open AT[®] compatible Wireless CPU[®]s.

Firmware version is delivered in separate directories according to the concerned country (as described below).

Country	Firmware delivery directory
China mainland	Firmware\China
India	Firmware\India
South Asia	Firmware\South Asia
All other countries	Firmware\Other Countries

3.2 Corrections

Please refer to Open AT[®] Firmware v6.62A full Release Note (see the document [3]) for more information on AT commands related new features and corrections.

4 Open AT[®] IDE v1.03 Update

4.1 Introduction to Open AT[®] IDE v1.03

Now built on Eclipse™, this IDE allows any Open AT[®] Developer to select between either Visual.net or Eclipse™ framework to develop its Open AT[®] applications.

5 Open AT[®] OS v4.20 Update

5.1 Open AT[®] OS ADL API Update

5.1.1 Corrections

For more information, see the Open AT[®] SDK V4.21a Release Note [\[8\]](#).

6 Plug-Ins Update

6.1 Open AT® TCP/IP and Internet Plug-Ins

6.1.1 Beta Features

Id	Severity	Description (What/When)	Interface Change
NEW38546	4	Support for Ethernet bearer	no
NEW37301	4	HTTP client new options (redirection and authentication)	no

6.1.2 Corrections

Id	Severity	Description (What / When)	Interface Change
CUS37766	1	TCP Client and PING session creation won't be possible if the IP address is a DNS name.	no
ANO37901	1	The Open AT® application cannot set the HTTP version.	no
ANO38492/ CUS37852	2	During a GPRS session when answering call with ATA command from another port or WMUX mode, no "OK" is returned.	no
ANO38571	3	Cannot get WIP debug traces in TMT.	no
ANO38572	3	WIP_BERR_PPP_LINK_FAILED error code is always returned, whatever the cause of PPP connection establishment failure.	no
ANO36133	1	An assertion failure warning "STATE_SINGLE_STEP_CMD_PENDING == cfg->internal_state" is issued in the debug traces. However, it doesn't correspond to an actual internal error, and should be ignored.	no
CUS35671	3	When Debug options facilities are subscribed (through WIP_NET_OPT_DEBUG_PORT option in IP stack configuration <=> wip_netSetOpts, wip_netInitOpts...), global system behaviour is then slowed down by wip_debug traces output.	no
ANO39082	3	A buggy Open AT® application may pass a NULL handler and resets Wireless CPU®	no

Id	Severity	Description (What / When)	Interface Change
ANO39163	3	Impossible to get the following ethernet bearer options using wip_bearerGetOpts() API . <ul style="list-style-type: none"> - WIP_BOPT_ETH_LINK_CFG - -WIP_BOPT_ETH_LINKADV - -WIP_BOPT_ETH_PROMISC - -WIP_BOPT_ETH_ALLMULTI 	no
ANO39172	3	wip_drvlSrSubscribe API will return a positive handler instead of ADL_RET_ERR_PARAM if a Null Interrupt handler is passed.	no
ANO39162	3	Impossible to set the following ethernet bearer options using wip_bearerSetOpts() API . <ul style="list-style-type: none"> - WIP_BOPT_ETH_LINK_CFG - -WIP_BOPT_ETH_PROMISC - -WIP_BOPT_ETH_ALLMULTI 	no
ANO39186	3	Can allocate a buffer of size greater than maximum size allowed, with wip_drvBufAlloc or wip_drvBufAlloc API.	no
ANO38635	2	Performing a wip_deleteFile() does not raise the proper notification WIP_CEV_DONE and WIP_CEV_ERROR on the session channel.	yes
ANO38367	1	wip_POP3ClientCreate() is useless, now use wip_POP3ClientCreateOpts() with the mandatory username/password options.	yes
CUS38091	2	When creating a TCP socket on a wrong IP address, response timeout may be higher than 75 seconds depending on network used.	no
DEV36500	2	With some FTP servers, including ftp2.fr.netbsd.org, wip_list() does not work.	no
DEV37418	2	The WIP sample application ftp_list resets on execution over GPRS.	no
DEV36639	3	HTTP client connection channel doesn't emit WIP_CEV_OPEN. User should start using the channel as and when it's created, without waiting for an OPEN event.	no
DEV36641	3	The default HTTP version setting, in HTTP client, doesn't always work. Workaround: always specify HTTP version in every request that must be HTTP/1.1.	no

6.2 Open AT® GTi Plug-In

For more information, please refer to Open AT® GTi documentation [5].

7 Restrictions & Known Problems

7.1 Known Problems

The Open AT® OS v4.20, IDE v1.03, SDK v4.21b known problems are as follows:

Id	Description (What / When)
ANO52108	When you install and create a sample (Hello World for example) using Eclipse, Open AT Project Wizard got hanged sometimes on first run. When you kill the process and again restart it works fine.
ANO33005	If an ADL Open AT® application is running, and a GPRS connection is initiated from an external application using atd*99***1#, AT commands won't answer anymore until the ATH command is issued.
ANO35829	When an Open AT® application is running, after a reset (AT+CFUN=1), +WIND: 0/13/13/14 indications are returned to external application even if this application doesn't sent AT+WIND=<value>. These indications should not be returned (only internal to Open AT®).
ANO32243	User can't use adl_atCmdSubscribe to subscribe to a command beginning by "ATA", "ATD" or "ATH" when call service is used.
CUS32244	Commands such as ATA, ATH and ATD can not be filtered using the API adl_atCmdSubscribe (), when FCM, Call and/or SIM services are running.
ANO33441	Wireless CPU® may reset, when a huge number of bad formatted AT commands (e.g. a lot of commands are sent with 2 r at the end) are sent from an external application.
ANO35143	With the External_Storage sample, the chip writing process is not documented. Writing is limited to 32 data bytes, so only up to 32 data bytes can be written in a single AT command operation; all additional bytes will be ignored.
ANO35629	A GPIO is firstly subscribed as an output, but requiring a polling process. If it is set as an input (using SetDirection), INPUT_CHANGED events are never generated. If it is firstly subscribed as an input, INPUT_CHANGED events are correctly generated, even after a direction change.
DEV35546	The Application Download sample is not documented. There is no way to know how the supplied AT commands are working.
ANO35826	Open AT® project creation systematically fails if some special characters are used for project name (&,) in the Wizard.
ANO36483 ANO36397	It is impossible to debug a WIP based application using RTE on eclipse platform (it is only available using Visual C++). IDE has to be updated in order to manage RTE libraries either for Visual C++ environment, or for Eclipse/MinGW one.

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Restrictions & Known Problems**

Id	Description (What / When)
CUS36686 CUS36692	When AT+CREG? is sent from an external application after subscription to this AT command, +CREG response is received twice because the AT+CREG? is automatically subscribed internally by application. Hence, there are two different subscriptions for the same command. This is an ADL limitation which is specified in chapter 2.4 "ADL limitations" in the ADL user guide.
CUS37075	When up to 2000 A&D cells are created by an application (whatever are the cells' sizes), the adl_adGetCellList function will lead to a Wireless CPU® watchdog reset.
ANO35762	The Basic sample SMS_And_Recall_Flash does not parse correctly received SMS, and hence never recognizes even well-formatted messages.
ANO37492	When an application releases an external interrupt pin control through the adl_extintUnsubscribe function, +WIND: 12 unsolicited responses are not sent anymore by the Wireless CPU®. A reset is needed to resume the +WIND: 12 indications.
ANO37966	In the GPIO event handler, when updated feature identifiers table is retrieved in RTE mode using the "adl_ioFeature_e * " type as is described in ADL user guide, the retrieved feature value is wrong.
CUS38806	RI behaviour (configured through AT+WRIM command) is not the same when an Open AT® application is running or not. This behaviour should be independant of the application execution.
CUS36647	Unexpected unsolicited +CREG & +CGREG events are sent by the Wireless CPU® when an embedded application is running and the AT&W command is used.
CUS38905	Service SIM of ADL is not in a good state when the AT+CPIN=XXXX commands is sent by the external application too quickly. A workaround is to check the PIN status like ADL (AT+CPIN?), when +SIM PIN is received wait for 1 second in order to let ADL subscribe to SIM event and then verify the PIN code. The +CME ERROR: 811 will disappear.
ANO37855	When adl_semConsumeDelay() is used with "TimeOut" defines to 0, "OK" response is received instead of "ADL_RET_ERR_PARAM".
ANO38648	When using the CMUX feature, if an application tries to send unsolicited responses too early (e.g. in the adl_main function), these ones should not be displayed on DLC ports, since they are not opened yet. As a workaround, the application should wait for the CMUX ports to be opened (use adl_portIsAvailable).
ANO37742	If an application uses the SIM service with bad handler values (NULL pointers), functions return OK, but any incoming SIM event will lead to a reset of the Wireless CPU®.
CUS37817	ADL is not currently supporting the ATQ1 mode; this mode is mandatory to keep an ascendant compatibility with old external applications using only some basic AT commands.
CUS39258	The adl_fcmUnsubscribe () API returns incorrect value of FCM flow when called immediately after adl_fcmSubscribe() API.

7.2 Open AT® TCP/IP and Internet Plug-Ins Restrictions

Id	Description (What / When)
ANO35165	Call events (RING indications) are not forwarded when GSM bearer is connected (even if ADL_CALL_FORWARD is called in a call service subscription).
ANO36397	It is impossible to debug a WIP based application using RTE on eclipse platform (it is only available using Visual C++).
DEV36499	'common' reserved sample name is displayed in the Wizard samples list (e.g. in the WIP Samples Set). It will not be displayed, since it is not a functional standalone sample.
DEV36615	When 100 mails are stored in the maildrop, the getList() may result in a reset of the Wireless CPU®.
ANO36804	In some cases, writing on a socket already shut down doesn't cause any error.
DEV36810	When creating a socket with wip_create() just after the call of wip_close() of that socket (same address and port), the then created socket could not function properly as desired because the socket closing needs time and is not immediate. Workaround has to ensure that the wip_create() is a little delayed from a respectively previous wip_close() call (a delay of one second is necessary).
ANO35171	When GSM bearer is used, ATH from external terminal stops the bearer link.
ANO38635	Performing a wip_deleteFile() does not raise the proper notification WIP_CEV_DONE and WIP_CEV_ERROR on the session channel.
ANO39170	Module reset occurs when trying to set / get the options of an invalid ethernet bearer using wip_bearerSetOpts() / wip_bearerGetOpts()
DEV39287	If the wip lib formats the mail header, specifying the BCC recipients, field will not work and corrupts the sent mail. A workaround is to let the application specify by itself the mail header and the recipients.
ANO39395	IP multicast is not yet supported by WIP, so this option should not be currently used by customer applications.
CUS38128	Wrong event received when trying to write data into a incorrect IP address in the UDP Channel's event handler

**Open AT® SDK v4.21b Release Note
Restrictions & Known Problems**

Id	Description (What / When)
CUS39046	"NO CARRIER" is not received for voice call when WIP GPRS bearer is started.
CUS39557	GSM data call not handled properly when a TCP data channel is already established.
CUS39563	When an attempt is made to create a TCP client socket with a TCP server which is in a closed state, then the error -990 is received indicating that the TCP connection is refused by the server. However there is no specific time delay (timeout) after which this error is received.

7.3 Open AT® C-GPS Plug-Ins Restrictions

Id	Description (What / When)
DEV36673	Performance of C-GPS in RTE mode are degraded because processing Open AT ® application in RTE mode is slower than in target mode.
CUS36961	Position returned when using GCC compiled application is not accurate.

7.4 Open AT® GTi Plug-In Restrictions

For more information, please refer to Open AT® GTi documentation [5].

