PROGRAMMING GUIDE

VIA Smart ETK SDK

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1. Introduction

1.1. Overview

VIA Smart ETK SDK supports the hardware control API for Network, Watch Dog, RTC, and UART modules.

Smart ETK is programmed with the socket IO as the communication between JAVA and C language to control the hardware modules. We implemented the board support service like bss_vt6080 to listen the request from Smart ETK API. We bound 127.0.0.1 as the internal listening IP, to keep it from establishing the connection with the external network.

2. System Requirements

2.1. Hardware Requirements

VIA Smart ETK SDK is compatible with the following main board:

- ☐ DS2 (VT6080) with Android BSP

2.2. Software Requirements

- ☐ Microsoft Windows or Ubuntu Linux
- ☐ Eclipse IDE with Android Development Tools (ADT) installed

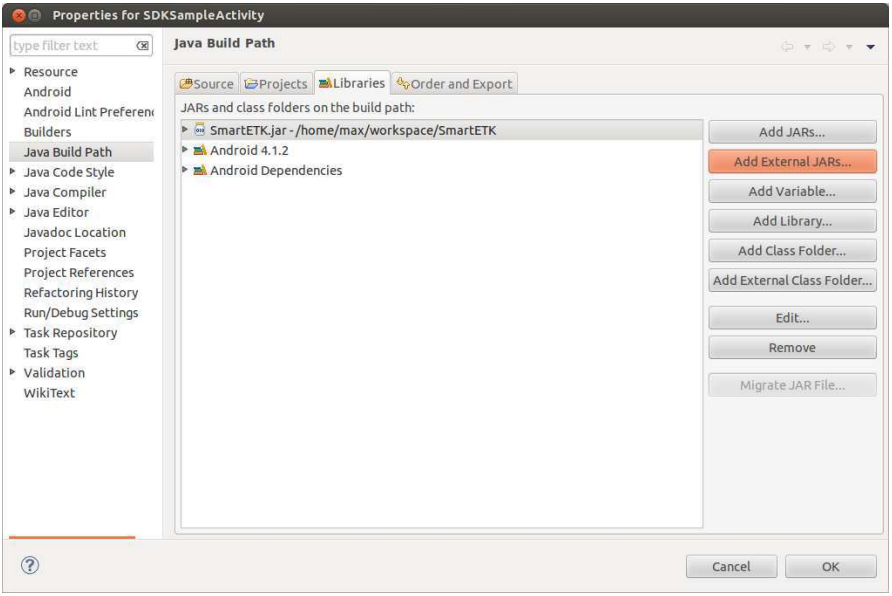
2.3. Application Required Permission

- ☐ android.permission.INTERNET
- ☐ android.permission.ACCESS_NETWORK_STATE

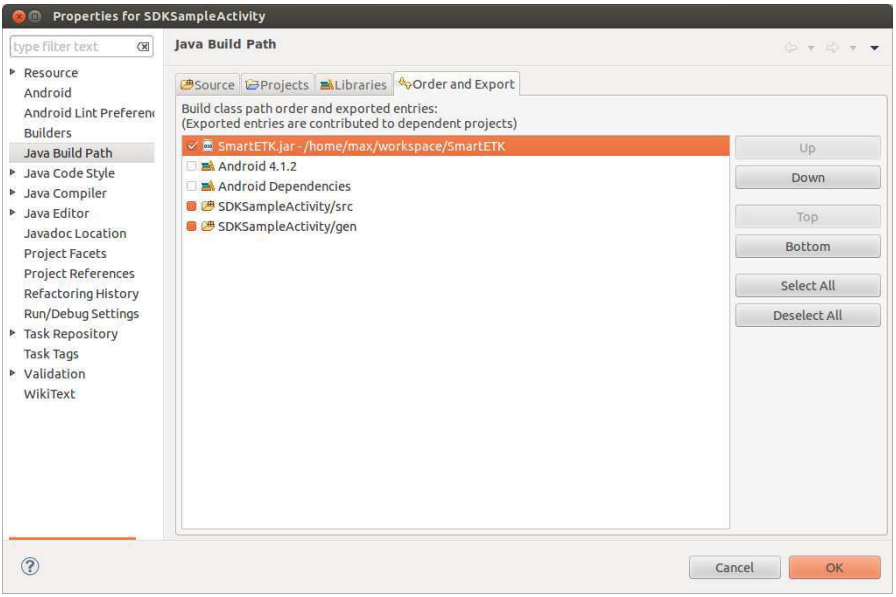
3. Installation and Usage

3.1. Installation on development computer

Open Eclipse IDE and create an Android project. In project properties, import SmartETK.jar by pressing the button "Add External JARs..." into the project.



Select "Order and Export" tab, move SmartETK.jar to the top and select it.



3.2. Installation on target board

Install the firmware released by VIA and it is done.

4. Smart ETK SDK API

4.1. Class definitions

Network, Watch Dog, RTC, and UART modules are placed in the class named com.viaembedded.smartetk, and returned values are placed in the class named com.viaembedded.smartetk. Import this package com.viaembedded.smartetk.* into Java code to use them.

4.2. Function return values

There are some types of return values found throughout the Smart ETK SDK API.

4.2.1. SmartETK.S_OK

The S_OK return value has the constant value 0. When a function returns the S_OK value, it indicates that the function is successfully complete.

4.2.2. SmartETK.E_FAIL

When a function returns the E_FAIL value, it indicates that the function has failed to complete.

4.2.3. SmartETK.E_VERSION_NOT_SUPPORT

When a function returns the E_VERSION_NOT_SUPPORT value, it indicates that the versions of SmartETK.jar and bsservice are not compatible.

4.2.4. SmartETK.E_INVALID_ARG

When a function returns the E_INVALID_ARG value, it indicates that the arguments are invalid.

4.2.5. SmartETK.E_FUNC_NOT_SUPPORT

When a function returns the E_FUNC_NOT_SUPPORT value, it indicates that the function is not supported by this board.

4.2.6. SmartETK.E_CONNECTION_FAIL

When a function returns the E_CONNECTION_FAIL value, it indicates that the bsservice doesn't respond to the request. Please make sure bsservice is running successfully.

4.2.7. SmartETK.E_NOT_RESPOND_YET

When a function returns the E_NOT_RESPOND_YET value, it indicates that the bsservice function is still running and has not finished yet.

4.2.8. SmartETK.E_TIMEOUT

When a function returns the E_TIMEOUT value, it indicates that there is no corresponding data received within the period.

4.2.9. SmartETK.E_UART_OPENFAIL

When Uart.open() returns the E_UART_OPENFAIL value, it indicates that the UART device can't be opened successfully. Please make sure the name of the tty device exists.

4.2.10. SmartETK.E_UART_NOT_OPEN

When a function returns the E_UART_NOT_OPEN value, it indicates that uart object cannot be operated normally. It might represent that the application doesn't open UART device before calling other operating function;or it was reset by the other uart object.

4.2.11. SmartETK.E_UART_ALREADY_OPENED

When Uart.open() returns the E_UART_ALREADY_OPENED value, it indicates that the uart object has been opened. If you need to open other UART device, please call close function to close the current device and open the other UART again.

4.2.12. SmartETK.E_UART_TTY_BEEN_USED

When Uart.open() returns the E_UART_TTY_BEEN_USED value, it indicates that the tty device has been used by other uart object. If you want to use it, you can call reset function to release the resource and open it again.

4.2.13. SmartETK.E_UART_BAUDRATE_NOT_SUPPORT

When Uart.setConfig() returns the E_UART_BAUDRATE_NOT_SUPPORT value, it indicates that baud rate is not supported.

4.3. Network Class

4.3.1. Network Class

Syntax:

```
Network();
```

Description:

Create a new Network object.

Example:

Create a Network object.

```
Network m_network = new Network();
```

4.3.2. Network.setWakeOnLan()

Syntax:

```
int setWakeOnLan(boolean bEnable);
```

Description:

Enable or disable Network wake on LAN function from suspend mode.

Parameters:

bEnable – enable or disable Network wake on LAN function from suspend mode.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.3.3. Network.getWakeOnLan()

Syntax:

```
int getWakeOnLan(boolean[] bEnable);
```

Description:

Get the status if Network wake on LAN function from suspend mode is enabled or disabled.

Parameters:

bEnable – return true for enable, return false for disable.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.4. WatchDog Class

4.4.1. WatchDog Class

Syntax:

```
WatchDog();
```

Description:

Create a new WatchDog object.

Example:

Create a WatchDog object.

```
WatchDog m_watchdog = new WatchDog();
```

4.4.2. WatchDog.setEnable()

Syntax:

```
int setEnable(boolean bEnable);
```

Description:

Enable or disable the watch dog function. If the watch dog function was enabled, it should be fed within a period, otherwise the system will reboot.

Parameters:

bEnable – enable or disable watch dog function.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.4.3. WatchDog.getEnable()

Syntax:

```
int getEnable(boolean[] bEnable);
```

Description:

Get the status if watch dog function is enabled or disabled.

Parameters:

bEnable – return true for enable, return false for disable.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.4.4. WatchDog.setTimeout()

Syntax:

```
int setTimeout(int iTimeout);
```

Description:

Set watch dog timeout value. The argument is an integer representing the timeout in seconds.

Parameters:

iTimeout – timeout value. (only support timeout in 2, 4, 8, 16, 32, and 64 seconds).

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.4.5. WatchDog.getTimeout()

Syntax:

```
int getTimeout(int[] iTimeout);
```

Description:

Get watch dog timeout value.

Parameters:

iTimeout – return timeout value.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.4.6. WatchDog.keepAlive()

Syntax:

```
int keepAlive();
```

Description:

Keep watch dog alive to avoid rebooting the system.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.5. RTC Class

4.5.1. RTC Class

Syntax:

```
RTC();
```

Description:

Create a new RTC object.

Example:

Create an RTC object.

```
RTC m_rtc = new RTC();
```

4.5.2. RTC.setWakeUpTime()

Syntax:

```
int setWakeUpTime(byte byMode, int iYear, byte byMonth, byte byDay, byte byHour, byte byMin, byte bySec);
```

Description:

Set the wake up time and mode in RTC. The behavior of wake up from suspend mode will start at the wake up time, and it must loop according to the wake up mode.

Parameters:

byMode –

RTC.ARG_RTC_MODE_DAY for wake up every day.

RTC.ARG_RTC_MODE_MONTH for wake up every month.

RTC.ARG_RTC_MODE_WEEK for wake up every week.

iYear – Year since 1900 ~ 2155 for wake up time

byMonth – Month (1 ~ 12) for wake up time

byDay – Day of the month (1 ~ 31) for wake up time

byHour – Hours (0 ~ 23) for wake up time

byMin – Minutes (0 ~ 59) for wake up time

bySec – Seconds (0 ~ 59) for wake up time

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.5.3. RTC.getWakeUpTime()

Syntax:

```
int getWakeUpTime(RTCStatus RS);
```

Description:

Get the wake up time and mode set in RTC.

Parameters:

RTCStatus – Wake up time and mode set in RTC

class RTCStatus

{

byMode –

RTC.ARG_RTC_MODE_DAY for wake up every day.

RTC.ARG_RTC_MODE_MONTH for wake up every month.

RTC.ARG_RTC_MODE_WEEK for wake up every week.

iYear – Year since 1900 ~ 2155 for wake up time

byMonth – Month (1 ~ 12) for wake up time

byDay – Day of the month (1 ~ 31) for wake up time

byHour – Hours (0 ~ 23) for wake up time

byMin – Minutes (0 ~ 59) for wake up time

bySec – Seconds (0 ~ 59) for wake up time

}

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.5.4. RTC.setEnable()

Syntax:

```
int setEnable(boolean bEnable);
```

Description:

Enable or disable RTC wake up function from suspend mode.

Parameters:

bEnable – enable or disable RTC wake up function from suspend mode.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.5.5. RTC.getEnable()

Syntax:

```
int getEnable(boolean[] bEnable);
```

Description:

Get the status if wake up function from suspend mode is enabled or disabled.

Parameters:

bEnable – return true for enable, return false for disable.

Return:

S_OK – if the function succeeds.

E_* – if the function fails

4.6. I2C Class

4.6.1. I2C Class

Syntax:

```
I2C(int iI2CBusNum, byte byI2CAddress, int iOffsetLen);
```

Description:

Create a new I2C object with specified bus number, slave address and the length of the offset address.

Parameters:

iI2CBusNum – I2C bus number. Ex: 0 is for i2c-0 bus, 1 is for i2c-1 bus.

byI2CAddress – I2C slave address. Support 7 bits slave address data.

iOffsetLen – The length of the registers' offset only support 0 ~ 4 bytes. (0: no registers / 1: 8 bit registers / 2: 16 bit registers / 3: 24 bit registers / 4: 32 bit registers)

Example:

Create an I2C object in I2C bus 1 and I2C slave address 10, and the offset length is 0.

```
I2C m_i2c = new I2C(1,10,0);
```

Create an I2C object in I2C bus 1 and I2C slave address 52, and the offset length is 2 (16 bit registers).

```
I2C m_i2c = new I2C(1,52,2);
```

4.6.2. I2C.read()

Syntax:

```
int read(byte[] byBuf, int iOffset, int iReadLen);
```

Description:

Read data from specified offset with a given length, and store the data in buffer.

Parameters:

byBuf – The buffer to store read data

iOffset – The registers' offset to read from a specified I2C bus number and slave address. (Valid data is 0 ~ 7FFFFFFF)

iReadLen – number of bytes to read, maximum 255 bytes per transfer.

4.6.3. I2C.write()

Syntax:

```
int write(byte[] byBuf, int iOffset, int iWriteLen);
```

Description:

Write data to a specified offset with a given length.

Parameters:

byBuf – The buffer of the written data

iOffset – The registers' offset of writing to a specified I2C bus number and slave address. (valid data is 0 ~ 7FFFFFFF)

iWriteLen – The written data length, maximum 255 bytes per transfer.

4.7. UART Class

4.7.1. UART Class

Syntax:

```
Uart();
```

Description:

Create a new UART object.

Example:

Create a UART object.

```
Uart m_uart = new Uart();
```

4.7.2. Uart.open()

Syntax:

```
int open(String sDev);
```

Description:

Open the specified UART device.

Parameters:

sDev – UART device name. (Ex. ttyUSB0)

Return:

S_OK – if the function succeeds.

E_UART_OPENFAIL – open device has failed.

E_UART_ALREADY_OPENED – object already has been opened.

E_UART_TTY_BEEN_USED – device has been used by other object.

E_* – if the function fails.

4.7.3. Uart.close()

Syntax:

```
int close();
```

Description:

Close the current opened UART device.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.7.4. Uart.setConfig()

Syntax:

```
int setConfig(int iBaudRate, byte byDataBIts, byte byStopBits, byte byParity,
byte byFlowCtrl);
```

Description:

Set the configurations of the opened UART device.

Parameters:

iBaudRate – baud rate (Ex. 115200)

byDataBits – data bits. 7: 7-bit data bits; 8: 8-bit data bits

byStopBits – stop bits. 1: 1-stop bits; 2: 2-stop bits

byParity – parity. 0: none; 1: odd; 2: even

byFlowCtrl – flow control. 0: none; 1: CTS/RTS

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.7.5. Uart.getConfig()

Syntax:

```
int getConfig(UartConfig UC);
```

Description:

Get the configurations of the opened UART device and store them in passed UartConfig Class.

Parameters:

UartConfig – UART Configuration

```
class UartConfiguration
{
        int iBaudRate – baud rate (Ex. 115200)
        byte byDataBits – data bits. 7: 7-bit data bits; 8: 8-bit data bits
        byte byStopBits – stop bits. 1: 1-stop bits; 2: 2-stop bits
        byte byParity – parity. 0: none; 1: odd; 2: even
        byte byFlowCtrl – flow control. 0: none; 1: CTS/RTS
}
```

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

Example:

```
UartConfig UC = m_uart.new UartConfig();
if(SmartETK.S_OK != m_uart.getConfig(UC))
{
        cleanStatus();
        return;
}
```

4.7.6. Uart.setTimeout()

Syntax:

```
int setTimeout(boolean bEnable, int iTimeout);
```

Description:

Set the timeout of the opened Uart device.

bEnable = true, iTimeout = 0 (polling read)

bEnable = true, iTimeout > 0 (read with timeout)

bEnable = false (blocking read)

Parameters:

bEnable – enable or disable the timeout function.

iTimeout – timeout value. Range 0 – 255 (0 ~ 25.5 seconds), unit is 0.1 second.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.7.7. Uart.getTimeout()

Syntax:

```
int getTimeout(Timeout T);
```

Description:

Get the timeout configuration of the opened UART device and store them in passed Timeout Class.

Parameters:

Timeout – timeout configuration

```
class Timeout
{
        boolean bEnable –  enable or disable the timeout function
        int iTimeout – timeout value. Range 0 – 255 (0 ~ 25.5 seconds), unit is
                       0.1 second.
}
```

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

Example:

```
Timeout T = m_uart.new Timeout();
if(SmartETK.S_OK != m_uart.getTimeout(T))
{
        cleanStatus();
        return;
}
```

4.7.8. Uart.setReturnChar()

Syntax:

```
int setReturnChar(boolean bEnable, byte byReturnChar);
```

Description:

Set the termination character of the opened UART device.

bEnable = true (blocking until byReturnChar is received, or read buffer is full.)

bEnable = false (ignore byReturnChar checking when reading data)

Parameters:

bEnable – enable or disable the termination character function.

byReturnChar – the termination character

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.7.9. Uart.getReturnChar()

Syntax:

```
int getReturnChar(ReturnChar RC);
```

Description:

Get the termination character configuration of the opened UART device and store them in passed ReturnChar Class.

Parameters:

ReturnChar – termination character configuration

```
class ReturnChar
{
        boolean bEnable –  enable or disable the termination character function
        byte byReturnChar – the termination character
}
```

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

Example:

```
ReturnChar RC = m_uart.new ReturnChar();
if(SmartETK.S_OK != m_uart.getReturnChar(RC))
{
        cleanStatus();
        return;
}
```

4.7.10. Uart.readData()

Syntax:

```
int readData(int iReadLen, byte[] byRead, int[] iActualLen);
```

Description:

Receive data from the opened UART device.

Parameters:

iReadLen – number of bytes to read, maximum 1024 bytes per transfer.

byRead – pointer to the buffer pointer.

iActualLen – the actual number of bytes received.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.7.11. Uart.readData()

Syntax:

```
int readData(int iReadLen, byte[] byRead);
```

Description:

Receive data from the opened UART device.

Parameters:

iReadLen – number of bytes to read, maximum 1024 bytes per transfer.

byRead – pointer to the buffer pointer.

Return:

>=0 – if the function succeeds, return the actual number of bytes received.

<0(E_*) – if the function fails.

4.7.12. Uart.writeData()

Syntax:

```
int writeData(int iWriteLen, byte[] byWrite);
```

Description:

Send the data to the opened UART device.

Parameters:

iWriteLen – number of bytes to transmit, maximum 1024 bytes per transfer.

byWrite – pointer to data buffer.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.7.13. Uart.reset()

Syntax:

```
int reset();
```

Description:

Reset the opened or open failed UART device.

If the UART device has been used by other object, open function will return E_UART_ALREADY_OPENED fails. The object could call reset function to release the uart resource and call open UART device again.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.8. SystemETK Class

4.8.1. SystemETK Class

Syntax:

```
SystemETK();
```

Description:

Create a new SystemETK object.

Example:

Create a SystemETK object.

```
SystemETK m_system = new SystemETK();
```

4.8.2. SystemETK.reboot()

Syntax:

```
int reboot();
```

Description:

Reboot the machine.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.8.3. SystemETK.suspend()

Syntax:

```
int suspend();
```

Description:

Suspend the machine.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

4.9. DPMS Class

4.9.1. Dpms Class

Syntax:

```
Dpms();
```

Description:

Create a new Dpms object.

Example:

Create a Dpms object.

```
m_dpms = new Dpms();
```

4.9.2. Dpms.setDpms()

Syntax:

```
int setDpms(boolean bEnable);
```

Description:

Enable or disable the Dpms mode of HDMI output

Parameters:

bEnable – enable or disable the Dpms mode of HDMI output.

Return:

S_OK – if the function succeeds.
E_* – if the function fails.

4.9.3. Dpms.getDpms ()

Syntax:

```
int getDpms(boolean[] bEnable);
```

Description:

Get the status if DPMS function is enabled or disabled.

Parameters:

bEnable – return true for enable, return false for disable.

Return:

S_OK – if the function succeeds.

E_* – if the function fails.

Appendix A. Network

A.1. Set Wake On LAN From Suspend mode

The following is the sample code:

```
boolean bSetEnable = true;

if(null == m_network)
        m_network = new Network();

if(SmartETK.S_OK != m_network.setWakeOnLan(bSetEnable))
{
        return false;
}
```

A.2. Get Wake On LAN From Suspend mode Status

The following is the sample code:

```
if(null == m_network)
        m_network = new Network();

boolean[] bGetEnable = new boolean[1];
```

```
if(SmartETK.S_OK != m_network.getWakeOnLan(bGetEnable))
{
        return false;
}

return bGetEnable[0];
```

Appendix B. Watch Dog

B.1. Enable the Watch Dog

The following is the sample code:

```
if(null == m_watchdog)
        m_watchdog = new WatchDog();

if(SmartETK.S_OK != m_watchdog.enable(true))
        return false;
```

B.2. Disable the Watch Dog

The following is the sample code:

```
if(null == m_watchdog)
        m_watchdog = new WatchDog();

if(SmartETK.S_OK != m_watchdog.enable(false))
        return false;
```

B.3. Set Watch Dog Timeout Value

The following is the sample code:

```
if(null == m_watchdog)
        m_watchdog = new WatchDog();

if(SmartETK.S_OK != m_watchdog.setTimeout(32))
        return false;
```

B.4. Get Watch Dog Status

The following is the sample code:

```
if(null == m_watchdog)
        m_watchdog = new WatchDog();

boolean[] bGetEnable = new boolean[1];
int[] iTimeout = new int[1];

if(SmartETK.S_OK == m_watchdog.getEnable(bGetEnable))
{
        /* Do something ... */
}

if(SmartETK.S_OK == m_watchdog.getTimeout(iTimeout))
{
        /* Do something ... */
}
```

B.5. Keep Watch Dog Alive

The following is the sample code:

```
if(null == m_watchdog)
        m_watchdog = new WatchDog();

if(SmartETK.S_OK != m_watchdog.keepAlive())
        return false;
```

Appendix C. RTC

C.1. Set RTC Wake Up From Suspend mode

The following is the sample code:

```
boolean bSetEnable = true;

if(null == m_rtc)
        m_rtc = new RTC();

if(SmartETK.S_OK != m_rtc.setEnable(bSetEnable))
{
        return false;
}
```

C.2. Get RTC Wake Up Status

The following is the sample code:

```
if(null == m_rtc)
        m_rtc = new RTC();

boolean[] bGetEnable = new boolean[1];

if(SmartETK.S_OK != m_rtc.getEnable(bGetEnable))
{
```

```
        return false;
}
```

C.3. Set RTC Wake Up Time

Wake up from suspend since 2014/5/1, every day at 12:00.

The following is the sample code:

```
byte byMode =  RTC.ARG_RTC_MODE_DAY;
int iYear = 2014;
byte byMonth = IntToByte(5);
byte byDay = IntToByte(1);
byte byHour = IntToByte(12);
byte byMin = IntToByte(0);
byte bySec = IntToByte(0);

if(null == m_rtc)
        m_rtc = new RTC();

if(SmartETK.S_OK != m_rtc.setWakeUpTime(byMode, iYear ,
byMonth , byDay , byHour , byMin , bySec))
{
        return false;
}
```

C.4. Get RTC Wake Up Time

The following is the sample code:

```
if(null == m_rtc)
{
        m_rtc = new RTC();
        m_RS = m_rtc.new RTCStatus();
}

if(SmartETK.S_OK != m_rtc.getWakeUpTime(m_RS))
{
        return false;
```

Appendix D. I2C

D.1. I2C Initialize

Create an I2C object in I2C bus 1 and I2C slave address 52, and the offset length is 2.

The following is the sample code:

```
int iBusNum = 1;
byte byAddress = IntToByte(52);
int iOffsetLen = 2;

if(iBusNum < 0 || byAddress < 0 || iOffsetLen < 0)
        return false;

m_i2c = new I2C(iBusNum, byAddress, iOffsetLen);
```

D.2. I2C Read Data

Read data from offset "0" with length "2" bytes, and store data in byRead byte array buffer.

The following is the sample code:

```
byte[] byRead = new byte[255]
int iOffset = 0;
int iReadLen = 2;
```

```
Arrays.fill(byRead, 0);

if(SmartETK.S_OK != m_i2c.read(byRead, iOffset, iReadLen) || null
== byRead)
        return false;
```

D.3. I2C Write Data

Write data to offset "0" with length "2" bytes and data value "0x0101". The written data is stored in byWrite byte array buffer.

The following is the sample code:

```
byte[] byWrite = new byte[2]

byWrite[0] = 0x01;
byWrite[1] = 0x01;

int iOffset = 0;
int iWriteLen = 2;

if(SmartETK.S_OK != m_i2c.write(byWrite, iOffset, iWriteLen))
        return false;
```

Appendix E. UART

E.1. UART Initialize Communication

The following is the sample code:

```
private Uart m_uart = null;

m_uart = new Uart();
if(null == m_uart)
{
        cleanStatus();
        return;
}

if(SmartETK.S_OK != m_uart.open((m_sDev =
mETDev.getText().toString())))
{
        cleanStatus();
        return;
}

if(SmartETK.S_OK != m_uart.setConfig((m_iBaudRate =
Integer.valueOf(mETBaudRate.getText().toString())), (byte)8,
(byte)1, (byte)0, (byte)0))
```

```
{
        cleanStatus();
        return;
}
```

E.2. UART Write Data

The following is the sample code:

Notice that "mETWrite" is the EditView to store the writing texts.

```
if(SmartETK.S_OK !=
m_uart.writeData(mETWrite.getText().toString().getBytes().length,
mETWrite.getText().toString().getBytes()))
{
        return;
}
```

E.3. UART Read Data

The following is the sample code:

```
int iReadLen = LENGTH;
byte[] byRead = new byte[LENGTH];
int[] iActualLen = new int[1];

while(SmartETK.S_OK == m_mainThreadUart.readData(iReadLen,
byRead, iActualLen))
{
```

```
        if(0 == iActualLen[0])
                continue;

        /* Process received byRead byte array ... */

        for(int i = 0; i < byRead.length; i++)
                byRead[i] = 0;

        iActualLen[0] = 0;
}
```

Appendix F. SystemETK

F.1. Reboot the Machine

The following is the sample code:

```
private SystemETK m_system = null;


if(null == m_system)
        m_system = new SystemETK();

if(SmartETK.S_OK != m_system.reboot())
        return;
```

F.2. Suspend the Machine

The following is the sample code:

```
private SystemETK m_system = null;


if(null == m_system)
        m_system = new SystemETK();

if(SmartETK.S_OK != m_system.suspend())
        return;
```

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