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PA100 Mobile Computer
SDK Programming Manual

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Overview

The ***Argox*** PA100 Mobile Computer Software Developer Kit (SDK) Programming Manual is prepared to assist programmers on developing application programs using ***Argox*** PA100 Mobile Computers under Microsoft® Windows® CE6.0 Operating System. It gives all the details needed to call functional subroutines controling the devices on the ***Argox*** PA100 Mobile Computer or access value-added devices on board such as Scanning and Wireless module.

This Programming Manual is organized as two major sections, one for the system related functions and the other for value-added scanning functions with the following information:

- Argox Mobile Computer standard Application Programming Interface (API) Definitions for system related functions:

  Audio

  Display

  Keypad

  Led and Vibrator Indicators

  Battery Status

  System Settings

  Bluetooth

  WLAN

- Argox Scanning module Application Programming Interface (API) Definitions

API definitions illustrate how to call a given functional subroutine. The API definitions are structed with information including: prototypes, parameters, return values, examples, and requirements of each API. The “Requirements” section gives information on whether or not a device supports a specific API function and the files to be included.

SDK Functions

When using SDK to develop their own application program, the programmer should link DLL file or LIB file, then, include header file SYSAPIAX.H.
The following two examples are given to show how to use LIB file and DLL file while developing an application program. We will use ***Visual Studio 2005*** to illustrate.

Example 1: Using LIB file.

First, programmer should include sysapiax.lib in the application project.

```
#include "Sysapiax.h"
main()
{
    . . . . .
    SetBacklightPWM(100, 100);
    . . . . .
}
```

Example 2: Using DLL file.

```
HINSTANCE dllHandle = NULL;
typedef DWORD (_stdcall *pfnSetBacklightPWM)(int nACPowerPercent, int
nBatteryPercent);
pfnSetBacklightPWM        m_SetBacklightPWM;

main()
{
    dllHandle = LoadLibrary(L"SYSAPIAX.dll");
    m_SetBacklightPWM = (pfnSetBacklightPWM) ::GetProcAddress(dllHandle,
_T("SetBacklightPWM"));
    m_SetBacklightPWM(0, 0);
      FreeLibrary(dllHandle);
}
```

SYSAPIAX.DLL

In PA100 SDK, we provide SYSAPIAX.DLL which includes several functions to allow programmer to control device drivers and system functions. Programmer can use WINCE develop tool like ***Visual Studio 2005*** to develop application programs. Descriptions of all these functions are given below.

Audio Related Functions

- Audio_GetVolume – Query current volume setting.
- Audio_SetVolume – Set level of audio volume.

Battery Related Function

- GetBatteryStatus – Gets main battery status.

Display Related Functions

- BacklightOn – Turn ON or OFF screen backlight.
- Display_QueryBacklightIntensity – Query back-light intensity.
- GetBacklightStatus – Gets screen backlight status.
- PowerOnLCD – Turn ON or OFF the power of LCD.
- SetBacklightPWM – Adjusts screen back-light brightness.
- EnableTouchPanel – ENABLE or DISABLE touch panel.
- GetTouchPanelStatus – Get touch panel status.

KeyPad Related Functions

- EnablePowerButton – ENABLE or DISABLE Power button.
- GetAlphaMode – Get the current keypad input MODE.
- SendKbdVisualKey – Sends a virtual key to key buffer.
- SetAlphaMode – Change keypad input MODE.

LED Related Functions

- GetKeypadLEDStatus – Gets keypad backlight LED status.
- GoodReadLEDOn – Turn ON or OFF good read LED.
- KeypadLEDOn – Turn ON or OFF keypad backlight LED.
- QueryKeypadLEDIntensity – Query keypad backlight LED brightness.
- SetKeypadPWM – Adjusts keypad backlight LED brightness.

System Related Functions

- CallSuspend – Enter SUSPEND mode.
- EnableAutoConnect – Turn auto-connect ON or OFF.
- RegisterAlphaKeyNotification – Register a request to send a prompt message when the ALPHA key is pressed.
- ShowChineseIME – DISPLAY or HIDE the Chinese IME.
- ShowDeskTop – DISPLAY or HIDE all icons on desktop.
- ShowExploreToolbar – DISPLAY or HIDE toolbar on windows explorer.
- ShowTaskbar –DISPLAY or HIDE taskbar.
- UnregisterAlphaKeyNotification – UNREGISTER prompt message request.
- RegisterTriggerKeyNotification – Register a request to send a prompt message when the trigger key is pressed.
- UnregisterTriggerKeyNotification – UNREGISTER prompt message request for trigger key.

Vibrator Related Functions

- VibratorOn – ON or OFF vibration indicator.

WLAN Related Functions

- WL_Enable – Enable WLAN.
- WL_Disable – Disable WLAN.

BlueTooth Related Functions

- BT_On – Enable Bluetooth.
- BT_Off – Disable Bluetooth.
- SetDiscoverMode – Enable/Disable the terminal is discoverable.
- GetDiscoverMode –Query terminal discoverable status.
- SetSPPService – Enable/Disable SPP Service.
- GetSPPService –Query SPP Service.
- SetFTPService – Enable/Disable FTP service.
- GetFTPService – Query FTP service status.
- SetFTPWriteable – Enable/Disable FTP service writeable.
- GetFTPWriteable – Query FTP service writeable status.
- SetFTPShareFolder – Setup the FTP share folder in terminal.
- GetFTPShareFolder – Query current FTP share folder in terminal.
- InitSearchBTDevice – Initial search information.
- FindNextBTDevice – retrieves the results of an Bluetooth device.

- EndSearchBTDevice – frees the search handle.
- InitSearchFTPDevice – Initial search the device supported FTP service.
- FindFirstFTPDevice – Get first device supported FTP service position.
- FindNextFTPDevice – Get next device supported FTP service position.
- PairDevice – Pair with device.
- UnPairDevice – Unpair with device.
- GetComInfo – Get com identifier index and amount.
- ConnectDevice – Connect to Bluetooth device for SPP or FTP.
- GetConnectStatus – Query the device connected status.
- GetSPPClientChannel – Get SPP channel.
- FindFirstFTPFile – Get first file information from share folder in connected device.
- FindNextFTPFile – Get next file information from share folder in connected device.
- GetFTPFile – Get file from share folder in the connected device.
- PutFTPFile – Send file to share folder in the connected device.
- CreateFTPFolder – Create a new folder to share folder in the connected device.
- DeleteFTPFolder – Delete folder from share folder in connected device.
- DeleteFTPFile – Delete file from share folder in connected device.

Bluetooth Structure

- CONNECT_INFO Structure – CONNECT_INFO Information used by ConnectDevice.
- FTP_FILE Structure – FTP_FILE Information used by FindFirstFTPFile and FindNextFTPFile.

Audio Related Functions

Audio_GetVolume

To query the current audio volume level setting.

```
DWORD Audio_GetVolume
{
    LPDWORD lpdwVolume
}
```

Parameters

lpdwVolume

[out] The current volume level setting.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, the returned value is E_FUNC_ERROR.

Example

```
DWORD dwResult, dwVolume;
dwResult = Audio_GetVolume(&dwVolume);
if(dwResult != E_FUNC_SUCCEED)
        AfxMessageBox(_T("Audio_GetVolume fail"));
else
{
        CString strTemp;
        strTemp.Format(_T("Volume:          %d"),dwVolume);
        AfxMessageBox(strTemp);
}
```

Requirements

OS Versions: Windows CE 6.0 or beyond.
Header: sysapiax.h
Link Library: sysapiax.lib
Link DLL: sysapiax.dll
Device: PA100

Audio_SetVolume

To set the audio volume level.

```
DWORD Audio_SetVolume
{
    DWORD dwVolume
}
```

Parameters

dwVolume

[in] Specifies a new volume level setting. The default level is 0x99999999.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, the returned value is E_FUNC_ERROR.

Example

```
DWORD dwResult,dwVolume;
dwVolume = 0x11111111;
dwResult = Audio_SetVolume(dwVolume);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Audio_SetVolume fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

Battery Related Function

GetBatteryStatus

To get main battery status.

```
int GetBatteryStatus
{
}
```

Parameters

None.

Returned Values

The returned value can be one of the values in the table below.

Return value	Description
0	battery high
1	battery low
2	battery critical
3	battery charging
4	no battery
5	battery unknown

Example

```
switch (GetBatteryStatus())
{
case 0:
        AfxMessageBox(_T("Battery High"));
        break;
case 1:
        AfxMessageBox(_T("Battery Low"));
        break;
case 2:
        AfxMessageBox(_T("Battery Critical"));
        break;
```

```
case 3:
        AfxMessageBox(_T("Battery Charging"));
        break;
case 4:
        AfxMessageBox(_T("No Battery"));
        break;
case 5:
        AfxMessageBox(_T("Battery Unknown"));
        break;
}
```

Requirements

OS Versions: Windows CE 6.0 or beyond

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll
Device: PA100

Display Related Functions

BacklightOn

To turn ON or OFF the LCD screen back-light.

```
DWORD BacklightOn
{
    BOOL bOn
}
```

Parameters

bOn

[in] Flag that indicates whether to turn ON screen back-light(TRUE) or turn OFF screen back-light(FALSE).

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, the returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR.

Remarks

After this action turning ON or OFF the screen back-light, the back-light will be always ON or OFF. The back-light setting of display properties in control panel does not work until the terminal been reseted.

Example

```
DWORD dwResult;
dwResult = BacklightOn(TRUE);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("BacklightOn fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

Display_QueryBacklightIntensity

To return the back-light intensity of external power and battery power.

```
DWORD Display_QueryBacklightIntensity
{
    LPDWORD lpdwACBacklight,
    LPDWORD lpdwBatteryBacklight
}
```

Parameters

lpdwACBacklight

[out] The backlight intensity of external power.

lpdwBatteryBacklight

[out] The backlight intensity of battery power.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR, E_FUNC_NULLPTR.

Remarks

The parameters will be one of the values in the following table.

Backlight intensity	Backlight brightness
4	super
3	normal
2	fine
1	micro
0	off

Example

```
DWORD dwResult, dwValue1, dwValue2;
dwResult = Display_QueryBacklightIntensity(&dwValue1, &dwValue2);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Display_QueryBacklightIntensity fail"));
else
{
    CString strTemp;
    strTemp.Format(_T("AC backlight intensity: %d, Battery backlight intensity:    %d"), dwValue1,
dwValue2);
    AfxMessageBox(strTemp);
}
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetBacklightStatus

To get screen back-light status.

```
DWORD GetBacklightStatus
{
}
```

Parameters

None.

Returned Values

The returned value indicates whether screen back-light is:

1 = screen back-light is ON; or

0 = screen back-light is oOFF.

Example

```
DWORD dwResult;
dwResult = GetBacklightStatus();
if(dwResult == 1)
        AfxMessageBox(_T("Backlight on"));
else
        AfxMessageBox(_T("Backlight off"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

PowerOnLCD

To turn ON or OFF the LCD screen power.

```
DWORD PowerOnLCD
{
    BOOL bOn
}
```

Parameters

bOn

[in] Flag that indicates whether to turn ON (TRUE) or OFF (FALSE) the LCD power.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR.

Remarks

After calling this function with "bOn" FALSE, terminal will only turn OFF the LCD power. It means that terminal is still working. You should either call this function again to turn ON the LCD power or to reset terminal to use the terminal with the LCD screen ON.

Example

```
DWORD dwResult;
dwResult = PowerOnLCD(FALSE); //power off LCD
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("PowerOnLCD fail"));
Sleep(3000);
dwResult = PowerOnLCD(TRUE); //power on LCD
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("PowerOnLCD fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

SetBacklightPWM

To adjusts the LCD screen back-light brightness.

```
DWORD SetBacklightPWM
{
    int nACPowerPercent,
    int nBatteryPercent
}
```

Parameters

nACPowerPercent,nBatteryPercent

[in] One is the brightness level setting when the terminal is using AC power and the other is the brightness level setting when the terminal is using battery power. These two settings must be one of the values in the table below.

nPercent	Backlight brightness
100	super
75	normal
50	fine
25	micro
0	off

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR.

Remarks

The Back-light Setting function in the Control Panel sets LCD screen back-light brightness level. Calling this function will also change the brightness level in Back-light Setting. You can use this function or Back-light Setting function in the Control Panel to adjust back-light brightness level.

Example

```
DWORD dwResult = SetBacklightPWM(100,100);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("SetBacklightPWM fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

EnableTouchPanel

To ENABLE or DISABLE the touch panel.

```
DWORD EnableTouchPanel
{
    BOOL bEnable
}
```

Parameters

bEnable

[in] Flag that indicates whether to enable(TRUE) or disable(FALSE) the touch panel.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR.

Example

```
DWORD dwResult = EnableTouchPanel(TRUE);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Enable touch panel fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetTouchPanelStatus

To get touch panel status.

```
DWORD GetTouchPanelStatus
{
    LPBOOL lpbEnable
}
```

Parameters

lpbEnable

[out] Receive the touch panel status. The returned value can be one of the values in the table below

Value	Touch panel status
0	Touch panel disable
1	Touch panel enable

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR.

Example

```
BOOL bEnable;
DWORD dwResult = GetTouchPanelStatus(&bEnable);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Get touch panel status fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

KeyPad Related Functions

EnablePowerButton

To ENABLE or DISABLE the POWER button.

```
DWORD EnablePowerButton
{
    BOOL bOn
}
```

Parameters

bOn

[in] Flag that indicates whether to ENABLE the POWER button(TRUE) or to DISABLE the POWER button(FALSE).

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR.

Remarks

If the *bOn* parameter is FALSE, the POWER button will be DISABLED. The POWER button will not work when been pressed. If the terminal enters suspend mode, the POWER button will work one time only to wake up the terminal. When the terminal wakes up, the POWER button will be DISABLED again until this function been called with parameter TRUE to ENABLE the POWER button.

Example

```
DWORD dwResult;
dwResult = EnablePowerButton(FALSE);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("EnablePowerButton fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetKeypadAlphaMode

To get the current keypad INPUT mode.

```
DWORD GetKeypadAlphaMode
{
}
```

Parameters

None.

Returned Values

The returned value can be one of the values in the table below.

Return value	Alpha mode
0	numeric mode
1	lowercase letter mode
2	uppercase lette mode

Example

```
DWORD dwResult;
dwResult = GetKeypadAlphaMode();
switch (dwResult){
case 0:
    AfxMessageBox(_T("Numeric mode"));
    break;
case 1:
    AfxMessageBox(_T("Lowercase letter mode"));
    break;
case 2:
    AfxMessageBox(_T("Uppercase letter mode"));
    break;
}
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

SendKbdVirtualKey

To send a VIRTUAL KEY to key buffer.

```
DWORD SendKbdVirtualKey
{
    BYTE Key
}
```

Parameters

Key

[in] Specifies a virtual-key code.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned value is E_FUNC_PAR_ERROR.

Example

```
CString strTemp;
strTemp = "VisualKey";
for(int i=0;i<strTemp.GetLength();i++)
    SendKbdVisualKey((unsigned char)strTemp.GetAt(i));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

SetKeypadAlphaMode

To change keypad INPUT mode.

```
DWORD SetKeypadAlphaMode
{
    int nMode
}
```

Parameters

nMode

[in] Flags for setting INPUT mode. This parameterer must be one of the values in the table below.

Value	Alpha mode
0	numeric mode
1	lowercase letter mode
2	uppercase letter mode

Returned Values

If this action succeeds, the returnedvalue is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR.

Example

```
DWORD dwResult;
dwResult = SetKeypadAlphaMode(1);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("SetKeypadAlphaMode fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

LED Related Functions

GetKeypadLEDStatus

To get keypad back-light LED status.

```
BOOL GetKeypadLEDStatus
{
}
```

Parameters

None.

Returned Values

The returned value indicates whether keypad back-light LED is ON(TRUE) or OFF(FALSE).

Example

```
BOOL bResult;
bResult = GetKeypadLEDStatus();
if(bResult == TRUE)
    AfxMessageBox(_T("Keypad LED on"));
else if(bResult == FALSE)
    AfxMessageBox(_T("Keypad LED off"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GoodReadLEDOn

To turn ON or OFF the goodread LED.

```
DWORD GoodReadLEDOn
{
    BOOL bOn
}
```

Parameters

bOn

[in] Flag that indicates whether to turn ON(TRUE) or OFF(FALSE) the goodread LED.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR.

Example

```
DWORD dwResult;
dwResult = GoodReadLEDOn(TRUE);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("GoodReadLEDOn fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

KeypadLEDOn

To always turn ON or OFF the keypad LED.

```
DWORD KeypadLEDOn
{
    BOOL bOn
}
```

Parameters

bOn

[in] Flag that indicates whether to turn ON (TRUE) or OFF(FALSE) the keypad LED.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR.

Remarks

The KeyPad LED Setting in Control Panel is used to set the Keypad LED operation to meet actual application requirements. Calling this function will set the KeyPad LED to always ON or OFF. Programmer can use this function or KeyPad LED Setting in the Control Panel to always turn ON or OFF the keypad LED.

Example

```
DWORD dwResult;
dwResult = KeypadLEDOn(TRUE);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("KeypadLEDOn fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

QueryKeypadLEDIntensity

To return the Keypad LED Intensity Setting when using external power and using battery power.

```
DWORD QueryKeypadLEDIntensity
{
    LPDWORD lpdwACKeypadLED,
    LPDWORD lpdwBatteryKeypadLED
}
```

Parameters

lpdwACKeypadLED

[out] The Keypad LED Intensity Setting using external power.

lpdwBatteryKeypadLED

[out] The Keypad LED Intensity Setting using battery power.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR, E_FUNC_NULLPTR.

Remarks

The parameters will be one of the values in the table below.

Keypad LED Intensity	Keypad LED Brightness
1	on
0	off

Example

```
DWORD dwResult, dwValue1, dwValue2;
dwResult = Display_QueryKeypadLEDIntensity(&dwValue1, &dwValue2);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("QueryKeypadLEDIntensity fail"));
else
{
    CString strTemp;
    strTemp.Format(_T("AC Keypad LED intensity: %d, Battery Keypad LED intensity: %d"), dwValue1,
dwValue2);
    AfxMessageBox(strTemp);
}
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

SetKeypadPWM

To adjusts Keypad LED Brightness.

```
DWORD SetKeypadPWM
{
    int nACPowerPercent,
    int nBatteryPercent
}
```

Parameters

nACPowerPercent,nBatteryPercent

[in] One is to set Keypad LED Brightness setting when using AC power and the other is to set Keypad LED Brightness setting when using battery. These two parameters must be one of the values in the table below.

nPercent	keypad LED brightness
100	on
0	off

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR.

Remarks

The Timeout&Brightness function in Control Panel can set Keypad LED Brightness. Calling this function will also change the Keypad LED Brightness in Timeout&Brighness function. Programmer can use either this function or Timeout&Brightness function in Control Panel to adjust the Keypad LED Brightness level.

Example

```
DWORD dwResult = SetKeypadPWM(100,100);
if(dwResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("SetKeypadPWM fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

System Related Functions

CallSuspend

To force the terminal entering SUSPEND mode.

```
void CallSuspend
{
}
```

Parameters

None.

Returned Values

None.

Example

```
//suspend device
CallSuspend();
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

EnableAutoConnect

To turn the AUTOCONNECT function ON or OFF.

```
BOOL EnableAutoConnect
{
    BOOL bEnable
}
```

Parameters

bEnable

[in] Flag that indicates whether ActiveSync is being automatically executed (TRUE) or not (FALSE) when user plugging host interface cable into the terminal.

Returned Values

Returning TRUE if the operation is successful. otherwise, FALSE.

Remarks

If calling EnableAutoConnect with bEnable set to TRUE, the terminal will automatically execute ActiveSync program when user plug cable into the terminal. If calling EnableAutoConnect with bEnable set to FALSE, the terminal will not automatically execute ActiveSync program when user plug cable into the terminal.

Example

```
BOOL bResult;
bResult = EnableAutoConnect(TRUE);
if(bResult == FALSE)
    AfxMessageBox(_T("EnableAutoConnect fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

RegisterAlphaKeyNotification

To Register the application to SYSAPIAX.dll, so that SYSAPIAX.dll will send a window message to the application when the Alpha Key is pressed.

```
DWORD RegisterAlphaKeyNotification
{
    HANDLE hWnd,
    UINT uMsg
}
```

Parameters

hWnd

[in] The handling window of the application to receive the message.

uMsg

[in] The message value to be sent when Alpha Key is pressed.

Returned Values

Return 0 if the operation is successful, otherwise return 1.

Remarks

The application should call UnregisterAlphaKeyNotification function to unregister the prompt message from the dll.

Example

```
if(RegisterAlphaKeyNotification(this->m_hWnd,WM_USER+0x0001))
    AfxMessageBox(_T("RegisterAlphaKeyNotification FAIL!!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

ShowChineseIME

To SHOW or HIDE ChineseIME function display

```
BOOL ShowChineseIME
{
    BOOL bShow
}
```

Parameters

bShow

[in] Flag that indicates whether to SHOW(TRUE) or HIDE (FALSE) the Chinese IME function display.

Returned Values

Returning TRUE if the operation is successful, otherwise FALSE.

Remarks

The Chinese IME is only supported in Chinese OS. It will work after calling this function then reset the terminal.

Example

```
BOOL bResult;
bResult = ShowChineseIME(TRUE);
if(bResult == FALSE)
    AfxMessageBox(_T("ShowChineseIME fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

ShowDesktop

To SHOW or HIDE Desktop function icon display.

```
BOOL ShowDesktop
{
    BOOL bShow
}
```

Parameters

bShow

[in] Flag that indicates whether to SHOW(TRUE) or HIDE(FALSE) the Desktop function icon display.

Returned Values

Returning TRUE if the operation is successful; otherwise FALSE.

Remarks

After calling this function with parameter FALSE, the terminal will HIDE all icons on Desktop. After calling this function with parameter TRUE, the terminal will SHOW all icons on Desktop.

Example

```
BOOL bResult;
bResult = ShowDesktop(TRUE);
if(bResult == FALSE)
    AfxMessageBox(_T("ShowDesktop fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

ShowExploreToolbar

To SHOW or HIDE Internet ExploreToolbar function display in Windows IE.

```
BOOL ShowExploreToolbar
{
    BOOL bShow
}
```

Parameters

bShow

[in] Flag that indicates whether to SHOW(TRUE) or HIDE(FALSE) the Internet Explorer toolbar in Windows IE.

Returned Values

Returning TRUE if the operation is successful; otherwise FALSE.

Remarks

The *ShowExploreToolbar* function only affects Windows Internet Explorers been opened already.

Example

```
BOOL bResult;
bResult = ShowExploreToolbar(TRUE);
if(bResult == FALSE)
    AfxMessageBox(_T("ShowExploreToolbar fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

ShowTaskbar

To SHOW or HIDE Taskbar function display.

```
BOOL ShowTaskbar
{
    BOOL bShow
}
```

Parameters

bShow

[in] Flag that indicates whether to SHOW(TRUE) or HIDE(FALSE) Taskbar display.

Returned Values

Returning TRUE if the operation is successful; otherwise FALSE.

Remarks

After calling this function, the terminal will SHOW or HIDE Taskbar. If Taskbar is hidden by this function, it needs to call this function to display Taskbar again.

Example

```
BOOL bResult;
bResult = ShowTaskbar(TRUE);
if(bResult == FALSE)
    AfxMessageBox(_T("ShowTaskbar fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

UnRegisterAlphaKeyNotification

To Unregister AlphaKey Notification function request so that the application will no longer receive Alpha Key been pressed notification messages.

```
DWORD UnregisterAlphaKeyNotification
{
    HANDLE hWnd,
 }
```

Parameters

hWnd

[in] The handling window of the application.

Returned Values

Returning 0 if the operation is successful, otherwise return 1.

Example

```
if(UnregisterAlphaKeyNotification(this->m_hWnd))
        AfxMessageBox(_T("UnregisterAlphaKeyNotification FAIL!!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

RegisterTriggerKeyNotification

To Register the application to SYSAPIAX.dll, so that SYSAPIAX.dll will send a window message to the application when the trigger Key is pressed or released

```
DWORD RegisterTriggerKeyNotification
{
    HANDLE hWnd,
    UINT uMsg
}
```

Parameters

hWnd

[in] The handling window of the application to receive the message.

uMsg

[in] The message value to be sent when trigger Key is pressed or released

Returned Values

Return 0 if the operation is successful, otherwise return 1.

Remarks

The application should call UnregisterTriggerKeyNotification function to unregister the prompt message from the dll. The wParam parameter of window message return the status of trigger key.

wParam	Trigger Key
0	The trigger key is released.
1	The trigger key is pressed.

Example

```
if(RegisterTriggerKeyNotification(this->m_hWnd,WM_USER+0x0001))
    AfxMessageBox(_T("RegisterTriggerKeyNotification FAIL!!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

UnregisterTriggerKeyNotification

To Unregister triggerkey Notification function request so that the application will no longer receive trigger key been pressed or released notification messages.

```
DWORD UnregisterTriggerKeyNotification
{
    HANDLE hWnd
 }
```

Parameters

hWnd

[in] The handling window of the application.

Returned Values

Returning 0 if the operation is successful, otherwise return 1.

Example

```
if(UnregisterTriggerKeyNotification(this->m_hWnd))
    AfxMessageBox(_T("UnregisterTriggerKeyNotification FAIL!!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

Vibrator Related Functions

VibratorOn

To turn ON or OFF the Vibration indicator

```
DWORD VibratorOn
{
    BOOL bOn
}
```

Parameters

bOn

[in] Flag that indicates whether to turn ON(TRUE) or OFF(FALSE) the vibration indicator.

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR.

Remarks

You can use this function to activate the vibration indicator of the terminal to alert the user that something is happening. Calling this function will not change the "Scanner Vibrator" setting.

Example

```
DWORD dwResult;
dwResult = VibratorOn(TRUE);
if(dwResult != E_FUNC_SUCCEED)
AfxMessageBox(_T("VibratorOn fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

WLAN Related Function

WL_Enable

To ENABLE the WLAN function.

```
BOOL WL_Enable
{
}
```

Parameters

None.

Returned Values

Returning TRUE if the operation is successful; otherwise FALSE.

Example

```
BOOL bResult;
bResult = WL_Enable();
if(bResult == FALSE)
    AfxMessageBox(_T("Wireless enable fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

WL_Disable

To DISABLE the WLAN function.

```
BOOL WL_Disable
{
}
```

Parameters

None.

Returned Values

Returning TRUE if the operation is successful; otherwise FALSE.

Example

```
BOOL bResult;
bResult = WL_Disable();
if(bResult == FALSE)
    AfxMessageBox(_T("Wireless disable fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

Bluetooth Related Function

BT_On

To ENABLE the Bluetooth function and power.

```
BOOL BT_On
{
}
```

Parameters

None.

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are BT_ERR_CREATE_FAIL, BT_ERR_INUSING.

Example

```
BOOL bResult;
bResult = BT_On();
if(bResult != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Bluetooth enable fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

BT_Off

To DISABLE the Bluetooth function and power.

```
void BT_Off
{
}
```

Parameters

None.

Returned Values

None

Example

BT_Off();

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

SetDiscoverMode

Enable or disable terminal discovered mode.

```
DWORD SetDiscoverMode
{
    BOOL bEnable
}
```

Parameters

bEnable

[in] Flag that indicates whether to enable (TRUE) or disable (FALSE) the terminal discovered mode

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned value is BT_ERR_SETTING_FAIL.

Example

```
If(SetDiscoverMode(TRUE) != E_FUNC_SUCCEED)
    AfxMessageBox("Setting fail");
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetDiscoverMode

Get terminal current discovered status.

```
BOOL GetDiscoverMode
{
}
```

Parameters

None

Returned Values

Return TRUE if terminal can be discovered, otherwise return FALSE.

Example

```
if(GetDiscoverMode())
    AfxMessageBox(_T("Discover mode is enable"));
Else
    AfxMessageBox(_T("Discover mode is disable"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

SetSPPService

Enable or disable Bluetooth serial port profile service.

```
DWORD SetSPPService
{
    BOOL bEnable
}
```

Parameters

bEnable

[in] Flag that indicates whether to enable (TRUE) or disable (FALSE) the serial port profile service mode

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are BT_ERR_SETTING_FAIL, BT_ERR_REG_DEV_FAIL, BT_ERR_SPP_COM_FAIL.

Example

```
If(SetSPPService(TRUE) != E_FUNC_SUCCEED)
    AfxMessageBox("Setting fail");
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetSPPService

Get terminal current serial port profile service status.

```
BOOL GetSPPService
{
}
```

Parameters

None

Returned Values

Return TRUE if SPP service is enable, otherwise return FALSE.

Example

```
if(GetSPPService())
    AfxMessageBox(_T("SPP service is enable"));
Else
    AfxMessageBox(_T("SPP service is disable"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

SetFTPService

Enable or disable File Transfer Profile service.

```
DWORD SetFTPService
{
    BOOL bEnable
}
```

Parameters

bEnable

[in] Flag that indicates whether to enable (TRUE) or disable (FALSE) the File Transfer Profile service mode

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are BT_ERR_SETTING_FAIL.

Example

```
if(SetFTPService(TRUE) != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Set FTP service fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetFTPService

Get terminal current File Transfer Profiel service status.

```
BOOL GetFTPService
{
}
```

Parameters

None

Returned Values

Return TRUE if FTP service is enable, otherwise return FALSE.

Example

```
if(GetFTPService())
    AfxMessageBox(_T("FTP service is enable"));
Else
    AfxMessageBox(_T("FTP service is disable"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

SetFTPWriteable

Enable or disable File Transfer Profile writable.

```
DWORD SetFTPWriteable
{
    BOOL bWriteable
}
```

Parameters

bWriteable

[in] Flag that indicates whether to enable (TRUE) or disable (FALSE) the File Transfer Profile writeable mode

Returned Values

Return E_FUNC_SUCCEED if the operation is successful.

Example

```
if(SetFTPWriteable(TRUE) != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Set FTP writeable fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetFTPWriteable

Get terminal current File Transfer Profile writeable status.

```
BOOL GetFTPWriteable
{
}
```

Parameters

None

Returned Values

Return TRUE if FTP writeable is enable, otherwise return FALSE.

Example

```
if(GetFTPWriteable())
    AfxMessageBox(_T("FTP service is writeable"));
else
    AfxMessageBox(_T("FTP service is diswriteable));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

SetFTPShareFolder

Setup the File Transfer Profile share folder.

```
DWORD SetFTPShareFolder
{
    WCHAR *strShareFolder
}
```

Parameters

strShareFolder

[in] The folder for File Transfer Profile.

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned value is E_FUNC_PAR_ERROR.

Example

```
if(SetFTPShareFolder("\\Temp") != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Set FTP Share Folder fail!!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetFTPShareFolder

Get terminal current File Transfer Profile share folder.

```
DWORD GetFTPShareFolder
{
    WCHAR *strShareFolder,
    int *nFolderLen
}
```

Parameters

strShareFolder

[out] The buffer to receive the share folder string

nFolderLen

[in/out] The **strShareFolder** buffer max size. If terminal current share folder length > nFolderLen, the nFolderLen receive current share folder length.

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_PAR_ERROR, BT_ERR_INSUFFICIENT.

Remarks

If function return BT_ERR_INSUFFICIENT, nFolderLen will receive the share folder length of terminal.

Example

```
WCHAR *strFolder;
int nFolderLen = 256;
strFolder = new WCHAR[nMax];
DWORD dwErr = GetFTPShareFolder(strFolder, & nFolderLen);;
If(dwErr == BT_ERR_INSUFFICIENT){
    Delete strFolder;
    strFolder = new WCHAR[nFolderLen];
    GetFTPShareFolder(strFolder, & nFolderLen);
}
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

InitSearchBTDevice

This function initiates search information.

```
DWORD InitSearchBTDevice
{
    HANDLE *hLookup
}
```

Parameters

hLookup

[out] Handle to be used when calling the **FindNextBTDevice** & **EndSearchBTDevice** function

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR., BT_ERR_DEVICE_ERROR.

Remarks

Must call **EndSearchBTDevice** function frees the handle after calls to the **InitSearchBTDevice** and **FindNextBTDevice** function.

Example

```
DWORD dwRe;
HANDLE hLookup;
ULONGLONG btAddress;
WCHAR szDeviceName[128];
dwRe = InitSearchBTDevice(&hLookup)
while(dwRe == E_FUNC_SUCCEED){
    dwRe = FindNextBTDevice(hLookup, szDeviceName, &btAddress, 256);
    if(dwRe == BT_ERR_DEVICE_ERROR)
        break;
        ……
}
EndSearchBTDevice(hLookup);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

FindNextBTDevice

This function retrieves the results of an nearby Bluetooth device search.

```
DWORD FindNextBTDevice
{
   HANDLE hLookup,
   LPTSTR szDeviceName,
   ULONGLONG *btAddress,
   int nNameLen
}
```

Parameters

hLookup

[in] Handle obtained from **InitSearchBTDevice** function

szDeviceName

[out] The buffer to receive the device name string

btAddress

[out] Receive the device address of 64-bit unsigned integer

nNameLen

[in] The **szDeviceName** buffer max size. If terminal device name length > nNameLen, the **szDeviceName** buffer store data of nNameLen length

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR, BT_ERR_DEVICE_ERROR.

Remarks

Must call **EndSearchBTDevice** function frees the handle after calls to the **InitSearchBTDevice** and **FindNextBTDevice** function.

Example

```
#define GET_NAP(_bt_addr)   ((USHORT)(((_bt_addr) & (ULONGLONG)0xFFFF00000000) >> (8*4)))
#define GET_SAP(_bt_addr)   ((ULONG)(((_bt_addr) & (ULONGLONG)0x0000FFFFFFFF) >> (0)))
DWORD dwRe;
HANDLE hLookup;
ULONGLONG btAddress;
WCHAR szAddress[16], szDeviceName[128];
dwRe = InitSearchBTDevice(&hLookup)
while(dwRe == E_FUNC_SUCCEED){
```

```
        dwRe = FindNextBTDevice(hLookup, szDeviceName, &btAddress, 256);
        if(dwRe == BT_ERR_DEVICE_ERROR)
            break;
            ……
        wsprintf(szAddress, L"%04X%08X", GET_NAP(btAddress), GET_SAP(btAddress));
            ……
    }
    EndSearchBTDevice(hLookup);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

EndSearchBTDevice

This function frees the search handle.

```
DWORD EndSearchBTDevice
{
    HANDLE hLookup
}
```

Parameters

hLookup

[in] Handle obtained from **InitSearchBTDevice** function

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, BT_ERR_DEVICE_ERROR.

Example

```
DWORD dwRe;
HANDLE hLookup;
ULONGLONG btAddress;
WCHAR szDeviceName[128];
dwRe = InitSearchBTDevice(&hLookup)
while(dwRe == E_FUNC_SUCCEED){
    dwRe = FindNextBTDevice(hLookup, szDeviceName, &btAddress, 256);
    if(dwRe == BT_ERR_DEVICE_ERROR)
        break;
        ……
}
EndSearchBTDevice(hLookup);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

InitSearchFTPDevice

Initial search Bluetooth device support File Transfer Profile service.

```
DWORD InitSearchFTPDevice
{
}
```

Parameters

None

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, BT_ERR_DEVICE_ERROR.

Example

```
DWORD dwPos, dwRe;
WCHAR szDeviceName[128];
ULONGLONG btAddress;
If(InitSearchFTPDevice() == E_FUNC_SUCCEED){
    dwRe = FindFirstFTPDevice(&dwPos, szDeviceName, & btAddress, 256);
    while(dwRe == E_FUNC_SUCCEED){
        FindNextFPTDevice(&dwPos, szDeviceName, & btAddress, 256);
        if(dwRe != E_FUNC_SUCCEED)
        break;
        ……
    }
}
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

FindFirstFTPDevice

Get the first searched device position information after calling InitSearchFTPDevice().

```
DWORD FindFirstFTPDevice
{
   DWORD *dwPos,
   LPTSTR szDeviceName,
   ULONGLONG *btAddress,
   int nNameLen
}
```

Parameters

dwPos

[in/out] a reference to a position value returned by **FindFirstBTDevice** or **FindNextBTDevice** function

szDeviceName

[out] The buffer to receive the device name string

btAddress

[out] Receive the device address of 64-bit unsigned integer

nNameLen

[in] The **szDeviceName** buffer max size. If terminal device name length > nNameLen, the **szDeviceName** buffer store data of nNameLen length

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR, BT_ERR_DEVICE_ERROR.

Example

```
#define GET_NAP(_bt_addr)   ((USHORT)(((_bt_addr) & (ULONGLONG)0xFFFF00000000) >> (8*4)))
#define GET_SAP(_bt_addr)   ((ULONG)(((_bt_addr) & (ULONGLONG)0x0000FFFFFFFF) >> (0)))
DWORD dwPos, dwRe;
WCHAR szDeviceName[128], szAddress[16];
ULONGLONG btAddress;
If(InitSearchFTPDevice() == E_FUNC_SUCCEED){
    dwRe = FindFirstFTPDevice(&dwPos, szDeviceName, & btAddress, 256);
    while(dwRe == E_FUNC_SUCCEED){
        FindNextFPTDevice(&dwPos, szDeviceName, & btAddress, 256);
        if(dwRe != E_FUNC_SUCCEED)
        break;
        ……
```

```
                wsprintf(szAddress, L"%04X%08X", GET_NAP(btAddress), GET_SAP(btAddress));
                ……
            }
        }
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

FindNextFTPDevice

Get the next searched device position information.

```
DWORD FindNextFTPDevice
{
   DWORD *dwPos,
   LPTSTR szDeviceName,
   ULONGLONG *btAddress,
   int nNameLen
}
```

Parameters

dwPos

[in/out] a reference to a position value returned by **FindFirstBTDevice** or **FindNextBTDevice** function

szDeviceName

[out] The buffer to receive the device name string

btAddress

[out] Receive the device address of 64-bit unsigned integer

nNameLen

[in] The **szDeviceName** buffer max size. If terminal device name length > nNameLen, the **szDeviceName** buffer store data of nNameLen length

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR, BT_ERR_DEVICE_ERROR.

Example

```
#define GET_NAP(_bt_addr)   ((USHORT)(((_bt_addr) & (ULONGLONG)0xFFFF00000000) >> (8*4)))
#define GET_SAP(_bt_addr)   ((ULONG)(((_bt_addr) & (ULONGLONG)0x0000FFFFFFFF) >> (0)))
DWORD dwPos, dwRe;
WCHAR szDeviceName[128], szAddress[16];
ULONGLONG btAddress;
If(InitSearchFTPDevice() == E_FUNC_SUCCEED){
    dwRe = FindFirstFTPDevice(&dwPos, szDeviceName, & btAddress, 256);
    while(dwRe == E_FUNC_SUCCEED){
        FindNextFPTDevice(&dwPos, szDeviceName, & btAddress, 256);
        if(dwRe != E_FUNC_SUCCEED)
        break;
        ……
```

```
                wsprintf(szAddress, L"%04X%08X", GET_NAP(btAddress), GET_SAP(btAddress));
                ……
            }
        }
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

PairDevice

Pair terminal with other device.

```
DWORD PairDevice
{
    ULONGLONG btAddress
    unsigned char PinCode[16]
}
```

Parameters

btAddress

[in] The device address for pair with

PinCode

[in] The pin code for connection

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are BT_ERR_PAIR_FAIL, BT_ERR_DEVICE_ERROR.

Example

```
if(PairDevice(btAddress, PinCode) != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Pair fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

UnPairDevice

Unpair terminal with other device.

```
DWORD UnPairDevice
{
    ULONGLONG btAddress
}
```

Parameters

btAddress

[in] The device address for unpair

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned value is BT_ERR_DEVICE_ERROR.

Example

```
PairDevice(btAddress, PinCode);
    ..........
UnPairDevice(btAddress);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetComInfo

Get com identifier index and amount from device hardware.

```
DWORD GetComInfo
{
    int *nComSum,
    LPCWSTR pComValue,
    int *nComValueLen
}
```

Parameters

nComSum

[out] Receive the device com amount

pComValue

[out] The buffer to receive the device com identifier index

nComValueLen

[in/out] The **pComValue** buffer max size. If terminal com value length > nComValueLen, the nComValueLen receive current com value length.

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned value is E_FUNC_ERROR, BT_ERR_INSUFFICIENT.

Remarks

If function return BT_ERR_INSUFFICIENT, nComValueLen will receive the com value length of terminal.

Example

```
WCHAR * pComValue;
int nComSum = 0, nComValueLen = 10;
pComValue = new WCHAR[nComValueLen];
DWORD dwErr = GetComInfo(&nComSum, pComValue, & nComValueLen);
If(dwErr == BT_ERR_INSUFFICIENT){
    Delete pComValue;
    pComValue = new WCHAR[nComValueLen];
    GetComInfo(&nComSum, pComValue, & nComValueLen);
}
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

ConnectDevice

Connect to Bluetooth device for SPP or FTP.

```
DWORD ConnectDevice
{
    ULONGLONG btAddress,
    CONNECT_INFO *Info,
    BOOL nConnect
}
```

Parameters

btAddress

[in] The device address for connect

Info

[in] The device connect information., see CONNECT_INFO data structure.

nConnect

[in] Connect status. 1 → connect, 0 → disconnect

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR, BT_ERR_CHANNEL, BT_ERR_REG_DEV_FAIL, BT_ERR_DEVICE_ERROR.

Example

```
if(ConnectDevice(btAddrecc, &Info, 1) == E_FUNC_SUCCEED){
    ……..…..…
}
ConnectDevice(btAddress, &Info, 0);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetConnectStatus

Query the device connect status.

```
DWORD GetConnectStatus
{
    ULONGLONG btAddress,
    int nConnectType,
    LPCWSTR pCom,
    int *nStatus
}
```

Parameters

btAddress

[in] Bluetooth device address

nConnectType

[in] Connect profile type. 1→ Serial port profile, 2 → File transfer profile

pCom

[in] The connect com for Serial port profile, must be four characters long.. Contains "COM"+ com identifier index, for example "COM7". If **nConnectType** parameter is 2 (FTP), **pCom** ben't to check

nStatus

[out] The device connect status

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned value is E_FUNC_PAR_ERROR.

Example

```
GetConnectStatus(btAddress, 1, _T("COM7"), &nStatus);
if(nStatus)
    AfxMessageBox(_T("SPP Connect!!"));
else
    AfxMessageBox(_T("SPP Disconnect"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetSPPClientChannel

Get the device serial port profile channel.

```
DWORD GetSPPClientChannel
{
    ULONGLONG btAddress,
    int *nChannel
}
```

Parameters

btAddress

[in] The device address which to get SPP channel

nChannel

[out] Receive queried channel

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, BT_ERR_DEVICE_ERROR.

Example

```
if(GetSPPClientChannel(btAddress, &nChannel) != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Get channel fail!!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

FindFirstFTPFile

Get first file information from share folder in the connected device.

```
DWORD FindFirstFTPFile
{
    WCHAR *path,
    FTP_FILE *File
}
```

Parameters

path

[in] The path of connected device for search file.

File

[out] The first searched file information in the path, see FTP_FILE data structure.

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_PAR_ERROR, BT_ERR_DEVICE_NOT_CONNECT, BT_ERR_FTP_DIR_FAIL, BT_ERR_FTP_EMPTY_FILE.

Example

```
FTP_FILE File;
DWORD dwErr = FindFirstFTPFile(_T("\\"), &File);
If(dwErr==E_FUNC_SUCCEED){
    Do{
        ……
        dwErr = FindNextFTPFile(&File);
    }while(dwErr == E_FUNC_SUCCEED);
}
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

FindNextFTPFile

Get next file information from share folder in the connected device.

```
DWORD FindNextFTPFile
{
    FTP_FILE *File
}
```

Parameters

File

[out] The received file information, see FTP_FILE data structure.

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_PAR_ERROR, BT_ERR_DEVICE_NOT_CONNECT, BT_ERR_FTP_EMPTY_FILE.

Example

```
FTP_FILE File;
DWORD dwError = FindFirstFTPFile(_T("\\"), &File);
If(dwErr == E_FUNC_SUCCEED){
    Do{
        ……
        dwErr = FindNextFTPFile(&File);
    }while(dwErr == E_FUNC_SUCCEED);
}
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

GetFTPFile

Get file from share folder in the connected device.

```
DWORD GetFTPFile
{
    LPCWSTR pTargetFile
}
```

Parameters

pTargetFile

[in] The file to get from connected device

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR, BT_ERR_DEVICE_NOT_CONNECT.

Example

```
if(GetFTPFile(_T(\\record.txt)) != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Get file fail!!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

PutFTPFile

Send file to share folder in the connected device.

```
DWORD PutFTPFile
{
    LPCWSTR pSourceFile,
    LPCWSTR pTargetPath
}
```

Parameters

pSourceFile

[in] The source file in the share folder to transfer to connected device.

pTargetPath

[in] The target path in the connected device to save file.

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR, BT_ERR_DEVICE_NOT_CONNECT.

Example

```
if(PutFTPFie(_T(\\Temp\\record.txt, _T(\\Collect)) != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Put file fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

CreateFTPFolder

Create a new folder to share folder in the connected device.

```
DWORD CreateFTPFolder
{
    LPCWSTR pTarget
}
```

Parameters

pTarget

[in] The folder which be created to share folder in the connected device

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR, BT_ERR_DEVICE_NOT_CONNECT.

Example

```
if(CreateFTPFolder(_T("\\FTP Folder") != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Create folder fail!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

DeleteFTPFolder

Delete folder from share folder in connected device.

```
DWORD DeleteFTPFolder
{
    LPCWSTR pTarget
}
```

Parameters

pTarget

[in] The folder will be deleted from share folder in the connected device

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR, BT_ERR_DEVICE_NOT_CONNECT.

Example

```
if(DeleteFTPFolder(_T("\\FTP Folder")) != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Delete folder fail!!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

DeleteFTPFile

Delete file from share folder in connected device.

```
DWORD DeleteFTPFile
{
    LPCWSTR pTarget
}
```

Parameters

pTarget

[in] The file will be deleted from share folder in the connected device.

Returned Values

If the action succeeds, the returned value is E_FUNC_SUCCEED. If the action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR, BT_ERR_DEVICE_NOT_CONNECT.

Example

```
if(DeleteFTPFile(_T("\\FTP Folder\\record.txt")) != E_FUNC_SUCCEED)
    AfxMessageBox(_T("Delete file fail!!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: sysapiax.h

Link Library: sysapiax.lib

Link DLL: sysapiax.dll

Device: PA100

Bluetooth Structure

CONNECT_INFO Structure

This setting file contains information used by ConnectDevice .

```
Struct CONNECT_INFO
{
    int nChannel;
    int nConnectType;
    WCHAR strCom[6];
}
```

Members

nChannel

The connect channel for Serial port profile

nCannectType

Connect profile type. 1→ Serial port profile, 2 → File transfer profile

strCom

The connect com for Serial port profile, must be four characters long.. Contains "COM"+ com identifier index, for example "COM7". If **nConnectType** member is 2 (FTP), **strCom** ben't to check

Structure Information

Header: sysapiax.h
Device: PA100

FTP_FILE Structure

This setting file contains information used by FindFirstFTPFile, FindNextFTPFile .

```
Struct FTP_FILE
{
    int nFileType;
    WCHAR strPath[260];
    WCHAR strFile[260];
    DWORD dwFileSize;
}
```

Members

nFileType

File object profile type. 0→ File, 1→ Folder

strPath

The file path

strFile

The file name; It will be null if the object is a folder

dwFileSize

The file size , in bytes; It will be 0 if the object is a folder.

Structure Information

Header: sysapiax.h

Device: PA100

SCANAPIAX.DLL

We supply SCANAPIAX.DLL to allow programmer to control the on-board scanning device. There are several functions available for programmer to tailor the application. Programmer can also use Windows CE development tool, such as Visual Studio 2005, to develop application program and control the on-board scanning device.

In the SCANAPIAX.DLL library, there are three functional groups can be used to control the scanning device. They are API_SCAN, Scan2Key, and Scanner related functions. Each functional group can be used to control the scanning device in different ways. These three functional groups can not be used at the same time. Programmer should select the most appropriate way to develop target application. The following shows function list of each functional group.

API_SCAN Related Functions

Programmer can use API_SCAN related functions to register application to SCANAPIAX.dll. API_SCAN functions will then send messages to report all activities, including error messages and scan data.

- API_Register – Register the application to SCANAPIAX.dll
- API_Unregister – Un-register the application from SCANAPIAX.dll
- API_GetBarData – Get barcode data into the buffer.
- API_GetBarDataLength – Return length of the scanned data.
- API_GetBarType – Return the barcode type.
- API_GetError – Get the error code.
- API_GetSysError – Return the system error code.
- API_GoodRead – Play sound and flash the LED.
- API_LoadSettingFromFile – Load scanner settings from file.
- API_Reset – Reset scanner to default settings.
- API_ResetBarData – Clear data buffer so that the next new scanned data can be load into the buffer.
- API_SaveSettingToFile – Save the current scanner settings to file.
- API_SaveSettingsToScanner – Write scanner settings into scanner.
- S2K_IsLoad – Check if the scan.exe is running or not.
- S2K_Load – Load or unload the scan.exe.
- SCAN_QueryStatus – Query scanner settings.
- SCAN_SendCommand – Send scanner command to change scanner status.
- SCAN_ResumeSystem – Enable/Disable scan key to resume system.
- SCAN_BatchSetting – Setup scanner in batch command.

- SCAN_BatchRead – Read scanner settings in batch command.

Scan2Key Related Functions

Programmer can use Scan2Key related functions to control scan.exe program. When scan.exe is loaded, scanned data will be sent to key buffer. Target application program can retrieve scanned data just like standard keyboard input.

- PT_OpenScan2Key – Execute scan.exe to scan barcode data into Terminal key buffer.
- PT_CloseScan2Key – Close scan.exe.
- PT_SetToDefault – Reset scanner settings to default status.

Scanner Related Functions

Programmer can use Scanner related functions to control scanner module without messages. When target application is using Scanner related functions, the scanned data will be stored in system buffer.

- PT_EnableScanner – Enable scanner to scan barcode data.
- PT_DiableScanner – Disable scanner.
- PT_CheckBarcodeData – Check whether there is scanned data in system buffer.
- PT_GetBarcodeData – Get barcode data and type from system buffer.
- PT_SetDeault – Reset scanner settings to default status.

Scan Key Related Functions

- EnableTriggerKey – Enable and disable scan key.
- GetLibraryVersion – Get the library version.
- GetTriggerKeyStatus – Get scan key status.
- PressTriggerKey – Trigger scan key.
- TriggerStatus – Get scan key trigger status.

Scan Structure

- ScannerSetting Structure – Scanner Setting Information used by SCAN_BatchSetting and SCAN_BatchRead.
- GeneralSetting Structure – Information of Indication, Transmission, Scan, and String settings.
- Code11_Setting Structure – Information of Code11 settings.
- Code39_Setting Structure – Information of Code39 settings.
- Code93_Setting Structure – Information of Code93 settings.
- Code128_Setting Structure – Information of Code128 settings.
- Codabar_Setting Structure – Information of Codabar settings.
- EAN8_Setting Structure – Information of EAN8 settings.

- EAN13_Setting Structure – Information of EAN13 settings.
- Interleaved25_Setting Structure –Information of Interleaved 2 of 5 settings.
- MSI_Setting Structure – Information of MSI Plessey settings.
- UPCA_Setting Structure – Information of UPCA settings.
- UPCE_Setting Structure – Information of UPCE settings.
- UPCEAN_Setting Structure – Information of UPCEAN settings.
- Discrete25_Setting Structure – Information of Discrete 2 of 5 settings.
- Chinese25_Setting Structure – Information of Chinese 2 of 5 settings.
- GS1_Setting Structure – Information of GS1 settings.

Scan Command Table

The Scan Command Table of PA100 terminal is used for SCAN_QueryStatus and SCAN_SendCommand functions. The Scan Command provides a different way to setup the scanning device.

When user wants to use this library, user should link SCANAPIAX.DLL, SCANAPIAX.LIB and the relate functions header file (SCANAPIAX.H).

API_SCAN Related Functions

API_Register

To Register the target application to SCANAPIAX.dll so that SCANAPIAX.dll can communicate with the application. It will also set the scanning device to working mode.

```
BOOL API_Register
{
    HWND hwnd
}
```

Parameters

hwnd

[in] the window handling the function library will send message to report all activities of the scanning device.

Returned Values

Returning TRUE if the operation is successful, otherwise, return FALSE.

Remarks

The target application must call API_Unregister to unregister from the dll and close the scanning device after the action been done. The messages can be one of the following:

SM_DATA_READY : Indicating that the barcode data is successfully read and ready for retrieval.

SM_ERROR_SYS : Indicating a system error is caused by calling system function. Calling API_GetSysError can get the system error code.

SM_ERROR_API : Indicating an error. Calling API_GetError can get the error code.

Example

```
if(!API_Register(theApp.GetMainWnd()->m_hWnd))
    AfxMessageBox(_T("API_Register FAIL!!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

API_Unregister

To Unregister the target application from SCANAPIAX.dll and close the scanning device.

```
void API_Unregister
{
}
```

Parameters

None

Return Values

None.

Example

API_Unregister();

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll
Device: PA100

API_GetBarData

To Get Barcode into the buffer. When receiving the message SM_DATA_READY, call this function can get the barcode data.

```
UINT API_GetBarData
{
    LPBYTE buffer,
    UINT* uiLength,
    UINT* uiBarType
}
```

Parameters

buffer

[out] buffer for scanned data string.

uiLength

[in/out] buffer size

uiBarType

[out] barcode type.

Returned Values

Returning 1 if the operation is successful, otherwise, return 0.

Remarks

If the buffer size is smaller than the scanned data, this function will return 0 and the parameter uiLength will return the size of the buffer to adopt the scanned data.

Example

```
if(message == SM_DATA_READY){
    CString strBarData,strBarType;
    UINT  uiSize, uiType, i;
    char    *pBuf;

    uiSize = uiType = 0;
    API_GetBarData(NULL,   &uiSize, &uiType);
    if(uiSize == 0)
        strBarData = _T("No Data");
    else{
        pBuf = (char *)new char[uiSize+1];
        memset(pBuf, 0, uiSize+1);
        API_GetBarData((LPBYTE)pBuf, &uiSize, &uiType);
```

```
            strBarType.Format(_T("%d"), uiType);
            for(i = 0 ; i < strlen(pBuf); i++)
                strBarData += *(pBuf+i);
        }
        AfxMessageBox( _T("Type:") + strBarType + _T("\r\nBarcode:") + strBarData);
        return 0;
    }
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

API_GetBarDataLength

To Get Length of the scanned data

```
UINT API_GetBarDataLength
{
}
```

Parameters

None

Returned Values

Length of the scanned data

Example

```
if(message == SM_DATA_READY){
    CString strData;
    UINT uiSize, uiType, i,uiLength;
    char *pBuf;
    uiLength = API_GetBarDataLength();
    if(uiLength == 0)
        strData = _T("No Data");
    else{
        uiSize = uiLength+1;
        pBuf = (char *)new char[uiSize];
        memset(pBuf, 0, uiSize);
        API_GetBarData((LPBYTE)pBuf, &uiSize, &uiType);
        for(i = 0 ; i < strlen(pBuf); i++)
            strData += *(pBuf+i);
    }
    AfxMessageBox(strData);
    return 0;
}
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

API_GetBarType

To Get the barcode type.

```
UINT API_GetBarType
{
}
```

Parameters

None

Returned Values

Always return zero

Remarks

value	Barcode	value	Barcode
BC_CODE11(100)	Code 11	BC_IATA_25(125)	IATA2 of 5
BC_CODE39(101)	Code 39	BC_DISCRETE(152)	Discrete 2 of 5
BC_CODE93(102)	Code 93	BC_TRIOPTIC(153)	Trioptic Code 39
BC_CODE128(103)	Code 128	BC_GS1_128(155)	GS1-128
BC_CODABAR(104)	Codabar	BC_UPCE1(156)	UPC E-1
BC_EAN8(105)	EAN8	BC_BOOKLANDEAN(157)	Bookland EAN
BC_EAN13(106)	EAN13	BC_COUPON CODE(158)	Coupon Code
BC_INTERLEAVED_25(108)	Interleaved 2 of 5	BC_GS1_14(159)	GS1 DataBar-14
BC_MSI_PLESSEY(110)	MSI Plessey	BC_GS1_LIMITED(160)	GS1 DataBar Limited
BC_UPCA(113)	UPCA	BC_GS1_EXPANDED(161)	GS1DataBarExpanded
BC_UPCE(114)	UPCE	BC_ISBT_128(162)	ISBT-128

Example

uiType = API_GetBarType();

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll
Device: PA100

API_GetError

To Get the error code.

```
DWORD API_GetError
{
}
```

Parameters

None

Returned Values

The returned value can be one of those in the table below:

Constant	Value	Description
ERR_WRITE_FAIL	WM_USER+1	Send commands to scanner module failed.
ERR_SETTING_FAIL	WM_USER+2	Set scanner setting failed.
ERR_SCANNER_NOT_OPEN	WM_USER+3	Open scanner module failed.
ERR_INVALID_FILE	WM_USER+4	Invalid setting file.

Example

```
dwError = API_GetError();
strMess.Format(_T("API Error Code: %d"), dwError);
AfxMessageBox(strMess);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

API_GetSysError

To Get the system error code.

```
DWORD API_GetSysError
{
}
```

Parameters

None

Returned Values

Returning the system error code that is returned by GetLastError(). Descriptions of system error code can be found in MSDN.

Example

```
dwError = API_GetSysError();
strMess.Format(_T("System Error Code: %d"), dwError);
AfxMessageBox(strMess);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

API_GoodRead

To activate a buzzer sound when the buzzer of the scanning device is enabled and to flash the LED when the good-read LED of the scanning device is enabled.

```
void API_GoodRead
{
}
```

Parameters

None

Returned Values

None.

Remarks

Use API_GoodRead() to notify the user that a barcode data is successfully scanned. The buzzer function of the scanning device can be set by Scan Configuration in the control panel. The good-read LED function of the scanning device can be set by SCAN_SendCommand() function. If the buzzer and good-read LED functions are disabled, the API_GoodRead will do nothing.

Example

API_GoodRead();

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

API_LoadSettingsFromFile

To Load scanner settings from file.

```
BOOL API_LoadSettingsFromFile
{
    LPCTSTR filename
}
```

Parameters

filename

[in] the scanner setting file(*.axs)

Returned Values

Returning TRUE if the operation is successful, otherwise, return FALSE.

Example

```
CString strFile;
CFileDialog    dlg(TRUE, NULL, NULL, OFN_FILEMUSTEXIST|OFN_PATHMUSTEXIST);

if(dlg.DoModal() != IDOK)
    return;

strFile = dlg.GetPathName();
if(theApp.m_API_LoadSettingsFromFile(strFile))
    AfxMessageBox(_T("Load form file Succeed"));
else
    AfxMessageBox(_T("Load from file Fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

API_Reset

To Reset the scanner settings to default.

```
BOOL API_Reset
{
}
```

Parameters

None

Returned Values

Returning TRUE if the operation is successful, otherwise, return FALSE.

Example

```
if(API_Reset())
    AfxMessageBox(_T("Reset Succeed"));
else
    AfxMessageBox(_T("Reset Fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

API_ResetBarData

To Clear the data buffer to allow the next scanned data coming in.

```
void API_ResetBarData
{
}
```

Parameters

None

ReturnedValues

None.

Example

API_ResetBarData();

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll
Device: PA100

API_SaveSettingsToFile

To Save current scanner settings to file. The extension file name is "axs".

```
BOOL API_SaveSettingsToFile
{
    LPCTSTR filename
}
```

Parameters

filename

[in] file name of the scanner settings.

Returned Values

Returning TRUE if the operation is successful, otherwise, return FALSE.

Example

```
CString strFile;
CfileDialog dlg(FALSE, _T("axs"), NULL, OFN_CREATEPROMPT, _T("Scanner Settings Files (*.axs) |*.axs ||
"));

if(dlg.DoModal() != IDOK)
    return;

strFile = dlg.GetPathName();
if(API_SaveSettingsToFile(strFile))
    AfxMessageBox(_T("Save to file Succeed"));
else
    AfxMessageBox(_T("Save to file Fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

API_SaveSettingsToScanner

To Write current scanner settings into the scanner.

```
BOOL API_SaveSettingsToScanner
{
}
```

Parameters

None

Returned Values

Returning TRUE if the operation is successful, otherwise, return FALSE.

Example

```
if(API_SaveSettingsToScanner())
    AfxMessageBox(_T("Save to Scanner Succeed"));
else
    AfxMessageBox(_T("Save to Scannere Fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

S2K_IsLoad

To Check if the application program scan.exe(scan barcode and send the scanned data into key buffer) is executing.

```
BOOL S2K_IsLoad
{
}
```

Parameters

None

Returned Values

The returned value TRUE indicates that scan.exe is running, The returned value FALSE indicates that scan.exe is not running.

Example

```
if(S2K_IsLoad()){
        AfxMessageBox(_T("scan.exe load"));
else
        AfxMessageBox(_T("scan.exe does not load"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

S2K_Load

To Load or Unload the the application program scan.exe.

```
BOOL S2K_Load
{
    BOOL bLoad,
    DWORD dwTimeOut
}
```

Parameters

bLoad

[in] To set TRUE to Load scan.exe and FALSE to Unload scan.exe

dwTimeOut

[in] When Unload scan.exe it will wait until the scan.exe been closed or Timeout by this parameter.

Returned Values

Returning TRUE if the operation is successful, otherwise, return FALSE.

Example

```
if(S2K_Load(FALSE,1000)){
    AfxMessageBox(_T("unload scan.exe success"));
else
    AfxMessageBox(_T("unload scan.exe failed"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

SCAN_QueryStatus

To Query current scanner settings.

```
BOOL SCAN_QueryStatus
{
    int nCommand1,
    int nCommand2,
    char *pReturn
}
```

Parameters

nCommand1

[in] See scan command table.

nCommand2

[in] See scan command table.

pReturn

[out] the current scanner settings. This buffer size must be larger than 100.

ReturnedValues

Returning TRUE if the operation is successful, otherwise, return FALSE.

Remarks

The *pReturn* value is depending on *nCommand1* and *nCommand2*. The *nCommand1* and *nCommand2* decide which scanner settings to be queried.

Example

```
char        *pValue;
pValue = (char *)new char[100];
memset(pValue, 0, 100);
//query Buzzer indication setting
SCAN_QueryStatus(5, 3, pValue);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

SCAN_SendCommand

To Send scanner command to change the scanner status.

```
BOOL SCAN_SendCommand
{
    int nCommand1,
    int nCommand2,
    char *pValue
}
```

Parameters

nCommand1

[in] See scan command table.

nCommand2

[in] See scan command table.

pValue

[in] See scan command table.

Returned Values

Returning TRUE if the operation is successful, otherwise, return FALSE.

Example

```
//Enable Buzzer indication setting
if(SCAN_SendCommand(5, 3, "1"))
        AfxMessageBox(_T("Setup complete"));
else
        AfxMessageBox(_T("Setup false"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

SCAN_ResumeSystem

To Enable/Disable scan key to resume system

```
DWORD SCAN_ResumeSystem
{
    BOOL bOn
}
```

Parameters

bOn

[in] Flag that indicates whether to Enable(TRUE) scan key to resume system or Disable(FALSE) scan key to resume system.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR, E_FUNC_SCANNER_NOT_OPEN.

Example

```
//Enable scan key to resume system
if(SCAN_ResumeSystem(1) == 0)
    AfxMessageBox(_T("Enable scan key to resume system succeed"));
else
    AfxMessageBox(_T("Enable scan key to resume system fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

SCAN_BatchSetting

To Setup all scanner settings in batch command

```
DWORD SCAN_BatchSetting
{
    ScannerSetting setting
}
```

Parameters

setting

[in] The ScannerSetting data structure.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED.. If this action fails, possible returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR, E_FUNC_SCANNER_NOT_OPEN, E_FUNC_SETTING_FAIL.

Example

```
ScannerSetting        setting;
setting.generalsetting.m_uiLED = 0;
setting.Code11.m_uiRead = 1;
setting.Code39.m_uiRead = 1;
        ……..…
SCAN_BatchSetting(setting);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

SCAN_BatchRead

To Read all scanner settings in batch command

```
DWORD SCAN_BatcRead
{
    ScannerSetting *setting
}
```

Parameters

setting

[out] Pointer to ScannerSetting data structure.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, possible returned values are E_FUNC_SCANNER_NOT_OPEN, E_FUNC_PAR_ERROR.

Example

```
ScannerSetting      setting;
SCAN_BatchRead(&setting);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

Scan2Key Related Functions

PT_OpenScan2Key

To Execute scan.exe to scan barcode and send the scanned data into terminal key buffer.

```
BOOL PT_OpenScan2Key
{
}
```

Parameters

None

Returned Values

Returning TRUE if the operation is successful, otherwise, return FALSE.

Example

```
BOOL bResult;
bResult = PT_OpenScan2Key();
if(!bResult)
    AfxMessageBox(_T("PT_OpenScan2Key fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

PT_CloseScan2Key

To Close application program scan.exe.

```
void PT_CloseScan2Key
{
}
```

Parameters

None

Returned Values

None.

Example

PT_CloseScan2Key()

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll
Device: PA100

PT_SetToDefault

To Reset all the scanner settings to default value.

```
int PT_SetToDefault
{
}
```

Parameters

None

Returned Values

Returning 1 if the operation is successful, otherwise, return 0.

Example

```
if(!PT_SetToDefault())
    AfxMessageBox(_T("PT_SetToDefault fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

Scanner Related Functions

PT_EnableScanner

To Enable scanner to scan barcode. This function will also get scanned data from scanning device and store in the system buffer. Application can use the other function, *PT_GetBarcodeData* , to retrieve scanned data from system buffer.

```
int PT_EnableScanner
{
}
```

Parameters

None

Returned Values

Returning 0 if the operation is successful, otherwise, return 1.

Example

```
if(PT_EnableScanner())
    AfxMessageBox(_T("PT_EnableScanner fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll
Device: PA100

PT_DisableScanner

To close the scanning device.

```
void PT_DisableScanner
{
}
```

Parameters

None

Returned Values

None.

Example

PT_DisableScanner();

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll
Device: PA100

PT_CheckBarcodeData

To Check whether there is scanned barcode data available in system buffer.

```
BOOL PT_CheckBarcodeData
{
}
```

Parameters

None

Returned Values

This function returns TRUE if there is scanned barcode data in system buffer and FALSE if there is no scanned barcode data in system buffer.

Example

```
if(PT_CheckBarcodeData())
    m_strScanData = _T("There are barcode data in system buffer");
else
    m_strScanData = _T("There are no barcode data in system buffer ");
```

Requirements

OS Versions: Windows CE 6.0 or beyond

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

PT_GetBarcodeData

To Get Barcode data and barcode type from system buffer.

```
BOOL PT_GetBarcodeData
{
    UINT* uiBarType,
    Char* pBuffer,
    UINT* uiMaxBufferLen
}
```

Parameters

uiBarType

[out] barcode type.

pBuffer

[out] buffer for storing scanned data..

uiMaxBufferLen

[in/out] The maximum buffer size

Returned Values

Returning TRUE if the operation is successful, otherwise, return FALSE.

Remarks

If the buffer size is smaller than scanned data, this function will return 0 and the parameter *uiMaxBufferLen* will return the length of the scanned barcode data.

Example

```
if(PT_CheckBarcodeData()){
    if(PT_GetBarcodeData(&uiBarType, pBarData, &uiMaxLen)){
        for(i = 0 ; i < strlen(pBarData) ; i++)
            m_strScanData += *(pBarData + i);
    }
    else
        m_strScanData = _T("Can't get scan data");
}
else
    m_strScanData = _T("No Scan Data");
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

PT_SetDefault

To Reset the scanner settings to default.

```
BOOL PT_SetDefault
{
}
```

Parameters

None

Returned Values

Returning TRUE if the operation is successful, otherwise, return FALSE.

Example

```
if(PT_SetDefault())
    AfxMessageBox(_T("PT_SetDefault succeed"));
else
    AfxMessageBox(_T("PT_SetDefault fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

Scan Key Related Functions

EnableTriggerKey

To Enable or Disable the scan Trigger Key.

```
DWORD EnableTriggerKey
{
    BOOL bEnable
}
```

Parameters

bEnable

[in] Flag that indicates whether to Enable(TRUE) or Disable(FALSE) the scan Trigger Key.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, the returned values are E_FUNC_ERROR, E_FUNC_PAR_ERROR.

Remarks

This function is valid only if the scanning device is enabled. A Warm Reset will enable the scan Trigger Key automatically.

Example

```
BOOL bResult;
bResult = EnableTriggerKey(TRUE);
if(bResult)
    AfxMessageBox(_T("EnableTriggerKey Succeed"));
Else
    AfxMessageBox(_T("EnableTriggerKey Fail"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

GetLibraryVersion

To Get Library Version information.

```
int GetLibraryVersion
{
}
```

Parameters

None

Returned Values

The version information, for example, if the returned value is 301, it means that dll version is 3.01

Example

```
int nVersion;
CString strTemp;
nVersion = GetLibraryVersion();
strTemp.Format(_T("Version = %d"), nVersion);
AfxMessageBox(strTemp);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

GetTriggerKeyStatus

To Get scan Trigger Key Status.

```
DWORD GetTriggerKeyStatus
{
}
```

Parameters

None.

Returned Values

Returned value 1 indicates that the scan Trigger Key is enabled. Returned value 0 indicates that the scan Trigger Key is disabled.

Example

```
if(GetTriggerKeyStatus())
    AfxMessageBox(_T("scan key ensable!"));
else
    AfxMessageBox(_T("scan key disable!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

PressTriggerKey

To Trigger the Scan Key.

```
DWORD PressTriggerKey
{
    BOOL bPress
}
```

Parameters

bPress

[in] Flag that indicates whether to Press(TRUE) or Release(FALSE) the scan Trigger Key.

Returned Values

If this action succeeds, the returned value is E_FUNC_SUCCEED. If this action fails, the returned value is E_FUNC_ERROR.

Remarks

This function is valid only if the scanning device is enabled.

Example

```
PressTriggerKey(TRUE);
Sleep(1000);
PressTriggerKey(FALSE);
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

TriggerStatus

To get the scan Trigger Key status.

```
DWORD TriggerStatus
{
}
```

Parameters

None.

Returned Values

The returned value 1 indicates that the scan Trigger Key is pressed and 0 indicates that scan Trigger Key is released.

Example

```
if(TriggerStatus())
    AfxMessageBox(_T("scan key pressed!"));
else
    AfxMessageBox(_T("scan key release!"));
```

Requirements

OS Versions: Windows CE 6.0 or beyond.

Header: scanapiax.h

Link Library: scanapiax.lib

Link DLL: scanapiax.dll

Device: PA100

Scan Structure

ScannerSetting Structure

This setting file contains information used by SCAN_BatchSetting and SCAN_BatchRead..

```
Struct ScannerSetting
{
    DWORD cbSize;
    struct GeneralSetting    generalsetting;
    struct Code11_Setting    Code11;
    struct Code39_Setting    Code39;
    struct Code93_Setting    Code93;
    struct Code128_Setting   Code128;
    struct Codabar_Setting   Codabar;
    struct EAN8_Setting      EAN8;
    struct EAN13_Setting     EAN13;
    struct Interleaved25_Setting   Inter25;
    struct MSI_Setting       MSIPlessey;
    struct UPCA_Setting      UPCA;
    struct UPCE_Setting      UPCE;
    struct UPCEAN_Setting    UPCEAN;
    struct Discrete_Setting  Discrete25;
    struct Chinese_Setting   Chinese25;
    struct GS1_Setting       GS1;
}
```

Members

cbSize

This is required. It is the size of structure *ScannerSetting* , in bytes.

generalsetting

GeneralSetting Structure.

Code11

Code11_Setting Structure.

Code39

Code39_Setting Structure.

Code93

Code93_Setting Structure.

Code128

Code128_Setting Structure.

Codabar

Codabar_Setting Structure.

EAN8

EAN8_Setting Structure.

EAN13

EAN13_Setting Structure.

Inter25

Interleaved25_Setting Structure.

MSIPlessey

MSI_Setting Structure.

UPCA

UPCA_Setting Structure.

UPCE

UPCE_Setting Structure.

UPCEAN

UPCEAN_Setting Structure.

Discrete25

Discrete25_Setting Structure.

Chinese25

Chinese25_Setting Structure.

GS1

GS1_Setting Structure.

Remarks

The *cbSize* must be the size of Structure *ScannerSetting*, in bytes.

Structure Information

Header: scanapiax.h

Device: PA100

GeneralSetting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct GeneralSetting
{
    UINT    m_uiLED;
    UINT    m_uiBeep;
    UINT    m_uiVibrator;
    UINT    m_uiScanResume;
    UINT    m_uiAimID;
    UINT    m_uiScanTout;
    Unsigned char    m_strPrefix;
    Unsigned char    m_strSuffix1;
    Unsigned char    m_strSuffix2;
    Unsigned char    m_strReserve;
    UINT    m_uiFormat;
}
```

Members

All members

See Indication, Transmission, Scan and String setting settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

Code11_Setting Structure

This setting contains information used by *Structure ScannerSetting*.

```
Struct Code11_Setting
{
    UINT    m_uiRead;
    UINT    m_uiChkDig;
    UINT    m_uiXmitChkDig;
    UINT    m_uiL1;
    UINT    m_uiL2;
}
```

Members

All members

See Code11 settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

Code39_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct Code39_Setting
{
    UINT    m_uiRead;
    UINT    m_uiChkDig;
    UINT    m_uiXmitChkDig;
    UINT    m_uiL1;
    UINT    m_uiL2;
    UINT    m_uiFullASCII;
    UINT    m_uiPharmacode
    UINT    m_uiTrioptic39;
}
```

Members

All members

See Code39 settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

Code93_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct Code93_Setting
{
    UINT    m_uiRead;
    UINT    m_uiL1;
    UINT    m_uiL2;
}
```

Members

All members

See Code93 settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

Code128_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct Code128_Setting
{
    UINT    m_uiRead;
    UINT    m_uiISBT128;
    UINT    m_uiGS1128
}
```

Members

All members

See Code128 settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

Codabar_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct Codabar_Setting
{
    UINT    m_uiRead;
    UINT    m_uiL1;
    UINT    m_uiL2;
    UINT    m_uiCLSI;
    UINT    m_uiNOTIS;
}
```

Members

All members

See Codabar settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

EAN8_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct EAN8_Setting
{
    UINT    m_uiRead;
    UINT    m_uiExtend;
}
```

Members

All members

See EAN8 settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

EAN13_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct EAN13_Setting
{
    UINT    m_uiRead;
}
```

Members

All members

See EAN13 settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

Interleaved25_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct Interleaved25_Setting
{
    UINT    m_uiRead;
    UINT    m_uiChkDig;
    UINT    m_uiXmitChkDig;
    UINT    m_uiL1;
    UINT    m_uiL2;
    UINT    m_uiConvertToEAN13;
}
```

Members

All members

See Interleaved 2 of 5 settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

MSI_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct MSI_Setting
{
    UINT    m_uiRead;
    UINT    m_uiChkDig;
    UINT    m_uiXmitChkDig;
    UINT    m_uiL1;
    UINT    m_uiL2;
    UINT    m_uiChkDigAlg;
}
```

Members

All members

See MSI Plessey settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

UPCA_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct UPCA_Setting
{
    UINT    m_uiRead;
    UINT    m_uiXmitChkDig;
    UINT    m_uiPreamble;
}
```

Members

All members

See UPCA settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

UPCE_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct UPCE_Setting
{
    UINT    m_uiRead;
    UINT    m_uiXmitChkDig;
    UINT    m_uiUPCE1;
    UINT    m_uiConvertToUPCA;
    UINT    m_uiUPCE1XmitChkDig;
    UINT    m_uiUPCE1ToUPCA;
    UINT    m_uiUPCEPreamble;
    UINT    m_uiUPCE1Preamble;
}
```

Members

All members

See UPCE settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

UPCEAN_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct UPCEAN_Setting
{
    UINT    m_BooklanEAN;
    UINT    m_BooklanISBN;
    UINT    m_CouponExtendedCode;
    UINT    m_SecurityLevel;
    UINT    m_uiSupplementals;
    UINT    m_uiSupplementRedundancy;
}
```

Members

All members

See UPCEAN settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

Discrete25_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct Discrete25_Setting
{
    UINT    m_uiRead;
    UINT    m_uiL1;
    UINT    m_uiL2;
}
```

Members

All members

See Discrete2 of 5 settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

Chinese25_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct Chinese25_Setting
{
    UINT    m_uiRead;
}
```

Members

All members

See Chinese2 of 5 settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

GS1_Setting Structure

This setting file contains information used by *Structure ScannerSetting*.

```
Struct GS1_Setting
{
    UINT    m_ui14;
    UINT    m_uiLimited;
    UINT    m_uiExpanded;
    UINT    m_uiConvertToUPCEAN;
}
```

Members

All members

See GS1 settings in Scan Command Table .

Structure Information

Header: scanapiax.h

Device: PA100

Scan Command Table

Command1	Command2	Value
5 Indication	2 LED indication	0: Disable 1: Enable *
	3 Buzzer indication	0: Disable 1: Enable *
	4: Vibrator	0: Disable * 1: Enable
	5 Resume System Using ScanKey	0: Disable * 1: Enable
6 Transmission	8 Code ID transmission	0: Disable * 1: Aim ID 2:Symbol ID See Note 1
7 Scan	17 Scan Timeout (deciseconds)	5~255 See Note 2 30*
8 String setting	3 Prefix character	0x00 ~ 0xFF ASCII code 00 *
	4 Suffix1 character	0x00 ~ 0xFF ASCII code 0A*
	5 Suffix2 character	0x00 ~ 0xFF ASCII code 0D*
	6 Transmission Format	0 :<Data> * 1 :<Data>< Suffix1 > 2 : <Data>< Suffix2 > 3 : <Data>< Suffix1 >< Suffix2 > 4 : < Prefix ><Data> 5 : < Prefix ><Data>< Suffix1 > 6 : < Prefix ><Data>< Suffix2 > 7 : < Prefix ><Data>< Suffix1 >< Suffix2 >
10 Code 11	1 Read	0: Disable * 1: Enable
	2 Check Digit	0: Disable* 1: One digit 2: Two digits

	3 Transmit Check Digit	0: Disable* 1: Enable
	4 Parameter#L1	0~55 See Note 3 4*
	5 Parameter#L2	0~55 See Note 3 55*
11 Code 39	1 Read	0: Disable 1: Enable *
	2 Check Digit	0: Disable * 1: Enable
	3 Transmit Check Digit	0: Disable * 1: Enable
	4 Parameter#L1	0~55 See Note 3 2*
	5 Parameter#L2	0~55 See Note 3 55*
	10 Full ASCII	0: Disable * 1: Enable
	14 Italian Pharmacode	0: Disable * 1: Enable
	19 Code 32 Prefix	0: Disable * 1: Enable
	20 Trioptic Code 39	0: Disable * 1: Enable
12 Code 93	1 Read	0: Disable * 1: Enable
	4 Parameter#L1	0~55 See Note 3 4*
	5 Parameter#L2	0~55 See Note 3 55*
13 Code 128	1 Read	0: Disable 1: Enable *
	14 ISBT 128	0: Disable 1: Enable*
	15 GS1-128	0: Disable 1: Enable*
14 Codabar	1 Read	0: Disable * 1: Enable

	4 Parameter#L1	0~55 See Note 3 5*
	5 Parameter#L2	0~55 See Note 3 55*
	14 CLSI Editing	0: Disable * 1: Enable
	15 NOTIS Editing	0: Disable * 1: Enable
15 EAN 8	1 Read	0: Disable 1: Enable *
	20 Zero Extend	0: Disable* 1: Enable
16 EAN 13	1 Read	0: Disable 1: Enable *
18 Interleaved 2 of 5	1 Read	0: Disable 1: Enable *
	2 Check Digit	0: Disable * 1: USS Check Digit 2: OPCC Check Digit
	3 Transmit Check Digit	0:Disable * 1:Enable
	4 Parameter#L1	0~55 See Note 3 14*
	5 Parameter#L2	0~55 See Note 3 0*
	9 Convert to EAN-13	0:Disable * 1:Enable
20 MSI Plessey	1 Read	0: Disable * 1: Enable
	2 Check Digit	0: One digit* 1: Two digit
	3 Transmit Check Digit	0: Disable * 1: Enable
	4 Parameter#L1	0~55 See Note 3 6*
	5 Parameter#L2	0~55 See Note 3 55*
	9	0:Mod 10/11

	MSI Check Digit Algorithm	1:Mod 10/10 *
23 UPCA	1 Read	0: Disable 1: Enable *
	3 Transmit Check Digit	0: Disable 1: Enable *
	20 UPCA Preamble	0:No Preamble 1:System Character * 2:System Character & Country Code
24 UPCE	1 Read	0: Disable 1: Enable *
	3 UPCE Transmit Check Digit	0: Disable 1: Enable *
	13 UPCE-1	0: Disable * 1: Enable
	14 Convert UPCE to UPCA	0: Disable * 1: Enable
	20 UPCE-1 Transmit Check Digit	0: Disable 1: Enable*
	21 Convert UPCE-1 to UPCA	0: Disable * 1: Enable
	22 UPCE Preamble	0:No Preamble 1:System Character * 2:System Character & Country Code
	23 UPCE-1 Preamble	0:No Preamble 1:System Character * 2:System Character & Country Code
35 UPCEAN	1 Bookland EAN	0: Disable * 1: Enable
	2 Bookland ISBN Format	0: Bookland ISBN-10 * 1: Bookland ISBN-13
	3 UCC Coupon Extended Code	0: Disable * 1: Enable
	4 Security Level	0:Security Level 0 1:Security Level 1 * 2:Security Level 2 3:Security Level 3
	5 Supplementals	0:Ignore With Supplementals* 1:Decode With Supplementals

		2: Autodiscriminate Supplementals 3: Enable Smart Mode 4: Enable 378/379 Mode 5: Enable 978/979 Mode 6: Enable 414/419/434/439 Mode 7 :Enable 977 Mode 8: Enable 491 Mode
	6 Supplemental Redundancy	2~30 See Note 4 7 *
59 Discrete 2 of 5	1 Read	0: Disable* 1: Enable
	4 Parameter#L1	0~55 See Note 3 12*
	5 Parameter#L2	0~55 See Note 3 0*
60 Chinese 2 of 5	1 Read	0: Disable* 1: Enable
61 GS1 Data Bar	1 Read	0: Disable 1: Enable *
	2 Limited	0: Disable 1: Enable *
	3 Expanded	0: Disable 1: Enable *
	4 Convert to UPC/EAN	0: Disable * See Note 5 1: Enable

Note1:

The Symbol Code ID characters are listed below

A	UPCA, UPCE, UPCE-1, EAN-8, EAN-13
B	Code 39, Code 32
C	Codabar
D	Code 128, ISBT 128
E	Code 93
F	Interleaved 2 of 5
G	Discrete 2 of 5
J	MSI
K	GS1-DataBar

L	Bookland EAN
M	Trioptic Code 39
N	Coupon Code
R	GS1 DataBar-14, GS1 DataBar Limited, GS1 DataBar Expanded

Note 2:

ScanTimeout: The maximum time decode processing continues during a scan attempt.

Note 3:

There are two lengths (L1 and L2) for each variable length code type. Depending on the selected option, the scan engine decodes:

Code Length Option	L1 value	L2 value
One discrete length is decoded.	Discrete length to decode	0x00
Two discrete lengths is decoded.	Higher length value	Lower length value
Lengths within a range are decoded.	Lower length value	Higher length value
Any length barcode is decoded.	0x00	0x00

Note 4:

When *UPCEAN Autodiscrimonate Supplementals* selected, this option adjusts the number of times a symbol without supplemental are decoded before transmission. The range is from 2 to 30 times. Five or above is recommended when decoding a mix of UPCEAN symbols with and without supplemental, and the autodiscriminate option is selected.

Note 5:

This parameter only applies to GS1 DataBar-14 and GS1 DataBar Limited symbols.

Function Return Values

Constant	Value	Description
E_FUNC_SUCCEED	0x00000000	The function returned without error.
E_FUNC_ERROR	0x00000001	The function returned error.
E_FUNC_NULLPTR	0x00000002	A null pointer was passed to the function.
E_FUNC_PAR_ERROR	0x00000003	An invalid parameter was passed to the function.
E_FUNC_SCANNER_NOT_OPEN	0x00000004	The scanning device is not enabled.
E_FUNC_SETTING_FAIL	0x00000005	The function setting failed.
BT_ERR_CREATE_FAIL	0x00001001	BlueTooth module startup fail
BT_ERR_INUSING	0x00001002	BlueTooth module is using by other application
BT_ERR_DEVICE_ERROR	0x00001003	BlueTooth Initial setting fail
BT_ERR_SETTING_FAIL	0x00001004	BlueTooth setup fail
BT_ERR_REG_DEV_FAIL	0x00001005	Register communication port fail
BT_ERR_SPP_COM_FAIL	0x00001006	SPP service com open fail
BT_ERR_INSUFFICIENT	0x00001007	The buffer for receivc data is insufficient
BT_ERR_PAIR_FAIL	0x00001008	Pait to device fail
BT_ERR_CHANNEL	0x00001009	SPP channel error
BT_ERR_FTP_SERVER_REJECT	0x00001010	FTP server reject connect request
BT_ERR_DIVICE_NOT_CONNECT	0x00001011	FTP service device not connect
BT_ERR_FTP_DIR_FAIL	0x00001012	Search the direction fail
BT_ERR_FTP_EMPTY_FILE	0x00001013	No more file data
BT_ERR_CONNECTED	0x00001014	The device had connected