S O F T W A R E   D E V E L O P E R S   K I T   A P I

rf IDEAS

UNIVERSAL SDK

pcProx API DLL Windows,
Linux & Mac Library
For pcProx® Plus, pcProx,
pcSwipe™ and pcProx Sonar.

Version 7.8.1

Support

Congratulations on the purchase of the Software Developer's Kit for the pcProx, pcProx Plus reader or Wiegand Converters. rf IDEAS knows you will enjoy using the new device as much as we enjoy creating and developing it! Configuration is easy so you will be able to quickly take advantage of a more secure environment in your business, school, or organization.

We are always discovering new applications for our product line. There are several software developers licensing our technology so the solution you are looking for may already be developed.

Please call our sales department if you have any questions or are interested in our OEM and Independent Developer's programs.

We look forward to your comments and suggestions for future upgrades. Please go to www.rfIDEAS.com and follow the Support / Learning Center link for more details about our product line.

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What's new in Version 7 of this library

Beginning with version 7.0.0, this library now supports three products: pcProx, pcSwipe, and pcProx Sonar. The basic functionality was derived from the pcProx library version 6.

Version 7.8.1

Feature Enhancements

1. Performance and security enhancements.
2. Updated release notes and file name of user manual.
2. Updated EULA document and Readme.

Version 7.8.0

New Features

1. Added transparent mode APIs for LEGIC 6300 readers: CheckTransparentMode, EnableTransparentMode, DisableTransparentMode.

Feature Enhancements

1. Added Mac digital signature to Mac OS SDK to eliminate user download restrictions.

Version 7.7.4

New Features

1. Added support for LEGIC 6300 VID PID 0C27:3B4C readers.

Version 7.7.3

Bug Fixes

1. Resolved an issue where the last lib error gave an incorrect hex code when loading tampered BLE data/key hwg file.
2. Resolved an issue where the INI API was failing.

What's new in Version 7 of this library

Version 7.7.2

Feature Enhancements

1. Added readDevCfgFmFile_char and writeDevCfgToFile_char APIs in C# example.
2. Updated documentation for GetLEDCtrl and SetLEDCtrl APIs.

Bug Fixes

1. Resolved an issue where writeDevCfgToFile_char() and readDevCfgFmFile_char() APIs were not working.
2. Resolved an issue where ReadDevCfgFromSecureFile API was not working on Mac Monterey.
3. Resolved an issue where BLE HWG API's WriteBLEKeyToReader was not working.

Version 7.7.1

Feature Enhancements

1. Added Updated EULA document.
2. Updated Readme.

Bug Fixes

1. Resolved an issue where loading BLE HWG files on Wren Mobile reader was failing.

Version 7.7.0

New Features

1. Added new APIs to get additional information of the reader: GetCopyrightInfo, GetBuildDate, GetCPUInfo, GetPlatformType, GetSerialNumber.
2. Added new APIs for BLE readers: WriteBLEDataToFile, WriteBLEKeyToFile, WriteBLEDataToReader, WriteBLEKeyToReader.
3. Added support for GetFWFilename and GetFullFWVersion for Wren Serial Reader.
4. Added new API SendGetFWVersion to populate firmware version of serial reader.

What's new in Version 7 of this library

S O F T W A R E   D E V E L O P E R S   K I T   A P I

Version 7.6.4

Bug Fixes

1. Resolved an issue with SecureHwg API on Ubuntu22.

2. Resolved an IOCTL error on console.

Feature Enhancements

1. Changed the folder location for EULA pdf.

Version 7.6.3

Feature Enhancements

1. Updated API documentation.

Version 7.6.2

New Features

1. Added support for Linux-Arm64 and Mac-M series.

2. Added support for BLE version information.

Feature Enhancements

1. Added GetActiveID API in loop for readercomm example.

2. Updated copyright information.

3. Updated EULA document.

Bug Fixes

1. Resolved an issue where documentation and loon reader took a long time
   to load hwg file.

Version 7.6.1

Bug Fixes

1. Resolved an issue with loadini API and documentation.

What's new in Version 7 of this library

Version 7.6.0

<u>New Features</u>

1. Added the API to load the ini File.

<u>Feature Enhancements</u>

1. Added WriteDevCfgToSecureFile and ReadDevCfgFromSecureFile APIs for Linux and Mac.
2. Added error code for loading tampered files.
3. Added WriteSecureData and ReadSecureData APIs for Linux and Mac.
4. Enhanced compatibility of the Secure hwg file across Windows, Linux, and Mac platforms.

Version 7.5.2Beta

<u>Bug Fixes</u>

1. Resolved an issue with Card data buffer.

<u>Feature Enhancements</u>

1. Added an API to retrieve the SDK's beta version information.

Version 7.5.1

<u>Bug Fixes</u>

1. Resolved an issue to remove Beta3 from API documentation.

Version 7.5.0

<u>Feature Enhancements</u>

1. Removed Beta3 from version.

Version 7.5.0Beta3

<u>Bug Fixes</u>

1. Resolved an issue with Com port for serial readers on Linux.

What's new in Version 7 of this library

SOFTWARE DEVELOPERS KIT API

Version 7.5.0Beta2

Bug Fixes

1. Resolved an issue with SetComSrchRange for AK0 Readers.

Feature Enhancements

1. Added latest card types.

Version 7.5.0Beta

Feature Enhancements

1. Introduced two new APIs: ReadSecureData and WriteSecureData to load and read all the configuration settings of the reader.

Version 7.4.9

Bug Fixes

1. Resolved an issue with API documentation.

Version 7.4.8

New Features

1. Added latest card types.

Feature Enhancements

1. Restricted exposure of some APIs.

Version 7.4.8Beta

New Features

1. Added two APIs for special reader configuration.

What's new in Version 7 of this library

Version 7.4.7

<u>Bug Fixes</u>

1. Resolved an issue related to secure hwg+ files when Value is appended at the end of secure key.
2. Resolved an issue related to loading the secure hwg+ files with security key starting with '0'.

<u>Feature Enhancements</u>

1. Changed the name CRC to iEndOfHwgFile in the SDK for Secure hwg files.
2. Updated new window's server IP.

Version 7.4.6

<u>Bug Fixes</u>

1. Resolved an issue with HWG File CRC Implementation.

Version 7.4.5

<u>New Features</u>

1. Implemented CRC Process for HWG File.
2. Added two APIs: WriteDevCfgToCRCFile and ReadDevCfgFromCRCFile.

<u>Feature Enhancements</u>

1. Added the getESN option in the readme of the Examples.

Version 7.4.4

<u>Feature Enhancements</u>

1. Exposed some of the APIs of the SDK for Linux and Mac Platforms.

Version 7.4.4Beta

<u>Feature Enhancements</u>

1. Added new readers' information in vid-pid list.

What's new in Version 7 of this library

Version 7.4.3

Feature Enhancements

1. Added /GUARD:CF compiler option in SDK.

2. Updated SDK and C++, C#, VB-net, and BLE example project files to support Visual Studio 2019 toolset.

Version 7.4.3Beta

New Features

1. Changed product id of JM3 reader.

2. Added vendor and product id for KPIT.

3. Added get Electronic Serial Number functionality for loon USB reader.

Version 7.4.2

New Features

1. Added signature validation process for libusb0.dll.

2. Implemented JM3 reader requirement.

Feature Enhancements

1. Changed getFWFilename API documentation.

2. Added steps to set device rules for rf IDEAS readers in Linux in ReadMe.pdf file.

3. Improved API document for LED structure.

4. Added FAQ for ethernet reader.

5. Updated card list in pcProxAPI.h file.

Bug Fixes

1. Resolved an issue for AKE readers and find next IP functionality.

Version 7.4.1

Bug Fixes

1. Resolved an issue enabling Extended/Hashing functionality for RDR-80x81AKE, AKB, E-P, or B-P with F/W LNC160800SPX700.

What's new in Version 7 of this library

Version 7.4.0

<u>New Features</u>

1. Implemented isASCIIpresent Flag to check support for ASCII-Conversion-Type in the reader.

<u>Feature Enhancements</u>

1. Improved documentation for getActiveId32 API.

Version 7.3.9

<u>Bug Fixes</u>

1. Resolved memory leak issue in C# example.
2. Fixed hash keys in configuration other than 1st.
3. Resolved an issue where NTWare Canon reader was listing all cards.

<u>Feature Enhancements</u>

1. Updated card list in pcProxAPI.h.

Version 7.3.8

<u>Bug Fixes</u>

1. Resolved an issue where serial readers were not getting connected on Linux platform.
2. Resolved an issue where USB readers were getting connected by passing connection type as SERIAL.

Version 7.3.7

<u>New Features</u>

1. Added support for proxAdv readers on Linux platform.

What's new in Version 7 of this library

Version 7.3.7Beta3

Feature Enhancements

1. Added Firmware: CPU0 and CPU1 Application and pcProx Library version to logs.

Bug Fixes

1. Resolved an issue for connecting pcSwipe readers.

Version 7.3.7Beta2

Feature Enhancements

1. Changed the location of Log file to C:/pcProxLogs/ProxApiSdk.

Version 7.3.7Beta

New Features

1. Included logging feature in SDK.

Version 7.3.6

New Features

1. Included static library for Windows.

Version 7.3.5

Feature Enhancements

1. Added multiple baud rates functionality for serial loon readers
   with firmware v16.8.

Version 7.3.5Beta

Bug Fixes

1. Resolved buffer overflow issue on calling GetDevName.

Version 7.3.4

Bug Fixes

1. Resolved an issue for connecting low baud rate serial loon reader.

What's new in Version 7 of this library

Version 7.3.3

Feature Enhancements

1. Increased the baud rate of serial readers from 9600 to 115200.

Version 7.3.2

New Features

1. GetFullFWVersion API.
2. Made SDK thread-safe.

Version 7.3.0

Feature Enhancements

1. Updated documents for new release.

Version 7.2.29

Bug Fixes

1. Fixed crash for proxAdv readers.

Feature Enhancements

1. Incorporated feedback for BLE Examples.

Version 7.2.28

New Features

1. Released SDK on RedHat, addressed limitations of SDK on Linux.

Feature Enhancements

1. Added some FAQs in ReadMe related to compatibility issues in Linux.

Bug Fixes

1. Fixed bugs in SDK examples.

Version 7.2.28Beta

Feature Enhancements

1. Implemented updates and enhancements for proxAdv reader functionality.

What's new in Version 7 of this library

Version 7.2.27

Feature Enhancements

1. Added BLE example in SDK.

2. Provided support for Mac OS X in pcProxAPI SDK.

Version 7.2.26

Feature Enhancements

1. Further enhancements made to the API reference documentation
   for clarity and completeness.

Version 7.2.25

Feature Enhancements

1. Improved API reference and ReadMe documents.

Version 7.2.24

Feature Enhancements

1. New EULA document.

Bug Fixes

1. Fixed issues related to serial loon reader.

Version 7.2.23

Bug Fixes

1. Fixed bug in SDK Examples.

Version 7.2.22

Feature Enhancements

1. Reduced sleep time in WriteCfg API for reader based on loon platforms.

What's new in Version 7 of this library

Version 7.2.21

New Features

1. GetFWFilename API.

2. New sample applications.

Feature Enhancements

1. Corrected definition of the setBTLEConfiguration API in the document.

Version 7.2.20

Bug Fixes

1. Performed clean installation by installer.

Version 7.2.19

Feature Enhancements

1. Updated hidapi libraries on Linux for improved compatibility and performance.

Version 7.2.18

Feature Enhancements

1. Included default vid pid list.

Version 7.2.17

Feature Enhancements

1. Removed name mangling to improve Java compatibility.

Version 7.2.16

Feature Enhancements

1. Added Sent current configuration to the reader before writing EV1 data.

Version 7.2.15

Feature Enhancements

1. Supported EV1 Key programming and Bluetooth® Low Energy technology.

What's new in Version 7 of this library

Version 7.2.14

Feature Enhancements

1. Supported volume control feature of pcProx Plus (version 2 with 4 card configuration).

Version 7.2.13

Bug Fixes

1. Resolved connection issue.

Version 7.2.12

Bug Fixes

1. Fixed slow connectivity issue of serial devices on Linux Platform.

Version 7.2.11

Bug Fixes

1. Fixed bugs on Linux with HID API implementation.

Version 7.2.9

Feature Enhancements

1. Implemented HID API instead of libusb on Linux.

Version 7.2.8

Feature Enhancements

1. Supported changes for backward compatibility of pcProx Plus with extended functionality.

Version 7.2.6

Feature Enhancements

1. Supported pcProx Plus readers with extended functionality.

What's new in Version 7 of this library

Version 7.2.5

<u>Bug Fixes</u>

1. Fixed issue where Extend, a pcProx Plus feature, was accepting more than 128 bytes.

Version 7.2.4

<u>Bug Fixes</u>

1. HealthCast Issue: Added ERROR FLAG in GetActiveID call for serial devices.

Version 7.2.3

<u>Feature Enhancements</u>

1. Supported backward compatibility of USB devices.

Version 7.2.1 & 7.2.2

<u>Bug Fixes</u>

1. Fixed regression issue for rf IDEAS Service Call 103055 for Caradigm USA LLC.

Version 7.2.0

<u>Feature Enhancements</u>

1. Supported the raw feature report for NT-ware.

What's new in Version 7 of this library

SOFTWARE DEVELOPERS KIT API

Version 7.1.7

Feature Enhancements

1. Supported libusb for NTWCC Bulk end point 3 CDC like.

Version 7.1.5

Feature Enhancements

1. Supported GetCardList from reader / Ping / IsCardTypeInList.

2. [Config] C++ Code Generation Enable String Pooling YES /GF.

Version 7.1.4

Feature Enhancements

1. Supported Ethernet 241™ Discovery protocol.

Version 7.1.3

Feature Enhancements

1. Supported pcProx Plus for Serial and Ethernet TCP/IP, POE, and EIP for Rockwell Automation®.

Version 7.1.2

Feature Enhancements

1. Supported multiple card types for pcProx Plus.

All pcProx functions are downward compatible with previous libraries.

New feature include:

Support for up to 127 devices USB and serial in the active list.

Supports three products, pcProx, pcSwipe, pcProx Sonar.

Available as a Linux shared library.

Ability to map com1 through com8 under Linux "/dev/<name>"

GetActiveID can be used to read RF ID, Sonar Status and Magnetic Card fields.

pcProx Plus support functions for multiple configurations.

pcProx Plus supports multiple cards types.

Direct Ethernet TCP/IP support for RDR-xxxx-AKE and

Ethernet Industrial Protocol(EIP) readers.

Throttle API calls to GetActiveID when time between calls is under 250 msec.

Reset to Factory Defaults optimized for pcProx Plus.

Reset to Defaults added for pcProx Plus.

Languages

Traditional legacy function starts with a capital letter. These have been used in
C, C++, and Visual Basic. Due to C# type safe code, many of the legacy functions
that set/get structure members have new functions that begin with a
lower case letter and do not take a structure pointer. These are safe for C#
managed code.

All function names are not C++ name mangled. They are case sensitive and appear
to the linker as is. This allows the functions to be easily called from
all versions of Visual Basic, Visual C/C++, GNU C/C++, Tcl/Tk and AutoIt. By using
Simplified Wrapper Interface Generator (SWIG) a library can easily be created
for language such as Java, Lua, Perl, Python, Ruby and others.

Frequently Asked Questions (FAQ1)

Q1. What is the simplest way to read the Card ID?
There are two main functions that talk with the reader to get the card ID;
GetActiveID() (receiving 8 bytes, 64 bits) and GetActiveID32() (receiving 32 bytes
up to 255 bits, for FIPS201, Chuid and Legic). The card data must be valid at the time
of the function call, card on the reader or the card was present 1 second ago.
New firmware may have the function GetQueuedID().

Step #1 Connect to the reader with the USBConnect() function.
Step #1B Optionally select any reader if more than one is on the USB bus.
Step #2 Call one of the GetActiveID functions on a 250 msec timer.
Step #3 When your application exits, call USBDisconnect().

Q2. How often must I configure the reader?
Once! You don't even have to write code to configure the reader. You may use
the pcProx Config Application to set the reader and then save the settings to
a .hwg+ file. The Application you write could then load the .hwg+ file into the
library by calling ReadDevCfgFmFile() and then write the flash memory by calling
WriteCfg().

Q3. How do I get the Facility Access Code (FAC) out of the GetActiveID bytes?
Card formats vary, but let's take the HID 26 bits card example when the facility access
code is one byte and the Card ID is two bytes. Many cards also have a parity bit in the
beginning and at the end of the data. First let's look at the data with parity stripped
off.

GetActiveID returns an array of bytes. Card manufacturers are different. By the
common HID 26 bit format is one leading and one trailing parity bit, 8 bit facility
access code and 16 bit ID code. If the facility access code is 183 and the card ID is
32877, You would expect a hex B7 for the FAC of 183, and hex 806D for the ID. Our byte
array returned from GetActiveID might look like: 00.00.00.00.00.B7.80.6D. So our
FAC would be FAC = Byte[5]. Our ID would be ID + (Byte[6] * 256) + Byte[7]
Now, with no parity stripped you have two extra bits to throw away. Notice the 03.

Our byte array would look like this with parity bits: 00.00.00.00.03.6F.00.DA

FAC = (((a[0] & 1) * 256) + a[1])/2 // Logical and with 1 to discard parity bit.

ID = (((a[5] & 1) * 65536) + (a[6] * 256) + a[7])/2. Divide by two or shift right to get rid of the least significant parity bit.

Q4. Can I configure an ethernet reader with the help of SDK ?

Yes, it can be configured using the SDK but it is advisable to use an ethernet reader with the ACP commands only as the SDK does not support connection to multiple ethernet readers simultaneously.

Frequently Asked Questions (FAQ2)

Q1. Can I speed up the USBConnect() ?

USBConnect tries to connect to several products and also tries several interfaces; USB, Serial and Ethernet. You can set the product types with the SetConnectProduct function. Some examples below:

```
SetConnectProduct(PRODUCT_PCPROX | PRODUCT_PCSWIPE);
SetConnectProduct(PRODUCT_PCPROX);
long ldid=0;
USBConnect(&ldid);
```
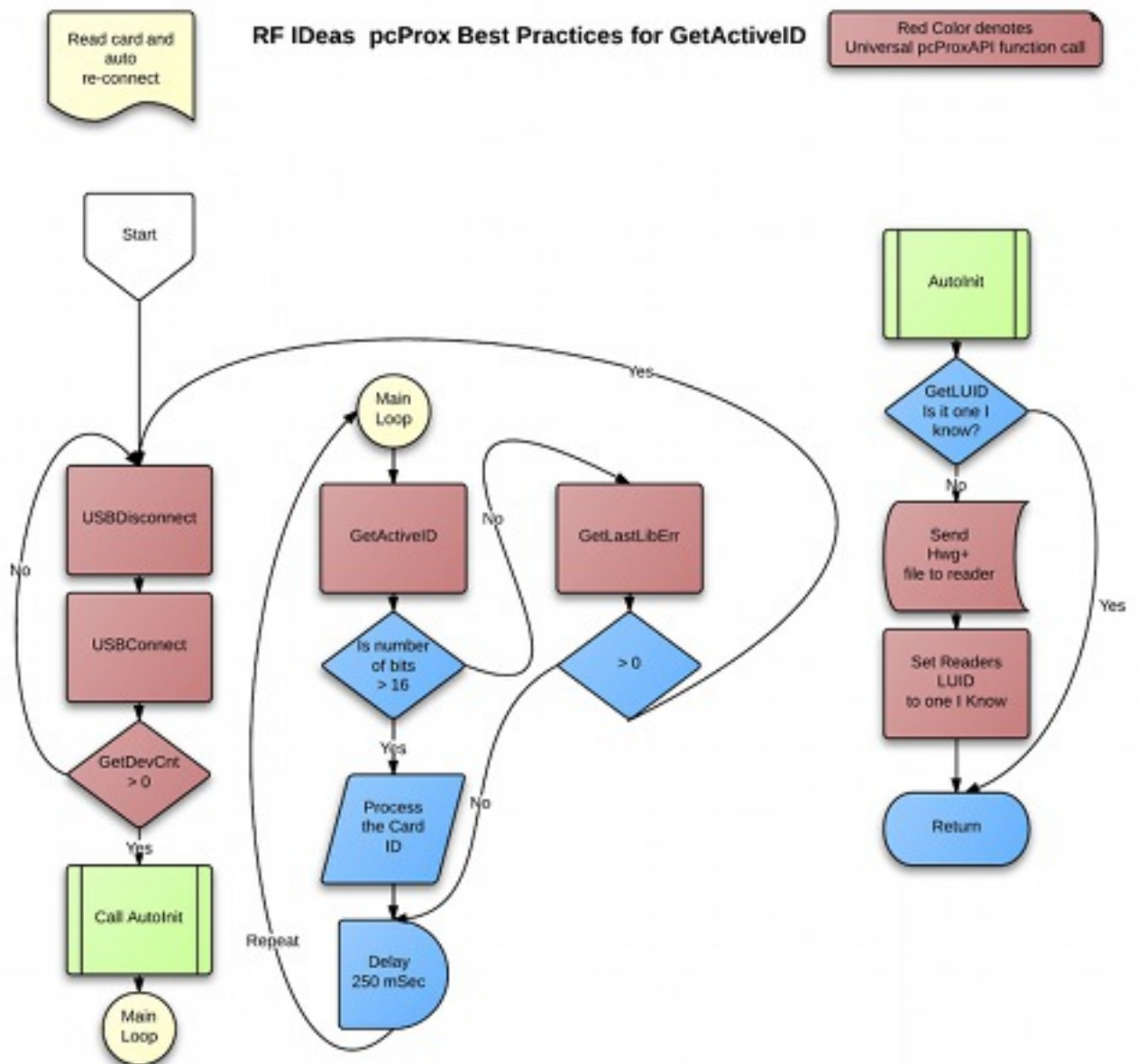
Likewise, you can set the device types you want to search for during USBConnect(). Serial and Ethernet will take longer than USB. See SetDevTypeSrch example below:

```
SetDevTypeSrch(PRXDEVTYP_USB);
SetDevTypeSrch(PRXDEVTYP_SER);
SetDevTypeSrch(PRXDEVTYP_TCP);
SetDevTypeSrch(PRXDEVTYP_ALL);
long ldid=0;
USBConnect(&ldid);
```

Q2. Do all functions in the library generate traffic to the devices?

No, many of the functions return cached values and are documented as such with yellow [Cached] text on the page title. Functions that generate traffic to the device have a green [Traffic] text on the title.

Best Practices

RF IDeas pcProx Best Practices for GetActiveID

Read card and auto re-connect

Red Color denotes Universal pcProxAPI function call

Start

Main Loop

AutoInit

USBDisconnect

USBConnect

GetDevCnt > 0

Call AutoInit

Main Loop

GetActiveID

Is number of bits > 16

Process the Card ID

Delay 250 mSec

GetLastLibErr

> 0

GetLUID Is it one I know?

Send Hwg+ file to reader

Set Readers LUID to one I Know

Return

No

No

Yes

Yes

Yes

No

No

Yes

Repeat

See the online tools section on our website.

http://www.rfideas.com/support/software-conversion-tools/read-card-id-tool

Data Types

The following data types are assumed to be these sizes.

```
BYTE    1 byte      unsigned char            0 .. 255
WORD    2 bytes     unsigned short           0 .. 65,535
BSHORT  2 bytes     signed short or short    -32,768 .. 0 .. 32,767
SHORT   2 bytes     unsigned short           0 .. 65,535
DWORD   4 bytes     double word              0 .. 4,294,967,295
```

Treat FALSE as zero and TRUE as NON FALSE.

TRUE may vary from language to language, and /or compiler to compiler.

rf IDEAS defined TRUE to be 0x0001, but other systems may use 0xFFFF or

0xFFFFFFFF or -1. It's safe not to compare with TRUE but to compare

with not FALSE.

if(FunctionCall() != FALSE)

{

   // Success

}

See typdefs in pcProxAPI.h for details.

```
typedef struct sBprRlyCtrl //  Used for pcProx and OEM W2-USB
{
    short iPad0;
    short iBeeperState; // 0 == Off, 1 == On
    short iRelayState;  // 0 == Off, 1 == On
    short iPad3;
    short iPad4;
    short iPad5;
    short iPad6;
    short bVolatile; // 0 == commit to EE, 1 == Don't store to EE
} tsBprRlyCtrl;
```

sCfgFlags

```
typedef struct sCfgFlags //  Used for pcProx■
{■
    short bFixLenDsp;      // Send as fixed length with leading zeros as needed■
    short bFrcBitCntEx;    // Force Rx'd bit count to be exact to be valid■
    short bStripFac;       // Strip the FAC from the ID (not discarded)■
    short bSndFac;         // Send the FAC (if stripped from data)■
    short bUseDelFac2Id;   // Put a delimiter between FAC and ID on send■
    short bNoUseELChar;    // Don't use a EndLine char on send (default to ENTER)■
    short bSndOnRx;        // Send valid ID as soon as it is received■
                           // (iIDLockOutTm timer not used)■
    short bHaltKBSnd;      // Don't Send keys to USB (Get ID mechanism)■
} tsCfgFlags;■
```

sCfgFlags2

```
typedef struct sCfgFlags2 //  Used for pcProx
{
    short bUseLeadChrs;  // Use leading chars in ID KB send
    short bDspHex;       // Display ID as ASCII Hex [not ASCII decimal]
    short bWiegInvData;  // Wiegand data on pins is inverted
    short bUseInvDataF;  // Use the bWiegInvData flag over hardware setting
    short bRevWiegBits;  // Reverse the Wiegand Rx bits
    short bBeepID;       // Beep when ID received
    short bRevBytes;     // Reverse byte order (CSN reader)
    short isASCIIpresent;//check if ASCII conversion type is present
                         //within the reader
} tsCfgFlags2;
```

sCfgFlags3

```
typedef struct sCfgFlags3 //  Used for pcProx■
{■
    short bUseNumKP;       // Euro KB flag■
    short bSndSFON;        // Split format ON = 1, old combined scheme = 0■
    short bSndSFFC;        // 0 = FAC Decimal, 1 = FAC Hex■
    short bSndSFID;        // 0 = ID Decimal, 1 = ID Hex■
    short bPrxProEm;       // Use ProxPro emulation■
    short bUse64Bit;       // 0 = 32-bit, 1 = 64-bit Display Math■
    short bNotBootDev;     // USB Enum: 0=BootDevice, 1=NOTBootDevice■
    short bLowerCaseHex;   // Alpha hex output displayed as lower case■
} tsCfgFlags3;■
```

sIDBitCnts

```
typedef struct sIDBitCnts //  Used for pcProx■
{■
    short iLeadParityBitCnt;  // Wiegand Leading Parity bit count to be stripped■
    short iTrailParityBitCnt; // Wiegand Trailing Parity bit count to be stripped■
    short iIDBitCnt;          // If bStripFac, determines bit count of ID and FAC■
    short iTotalBitCnt;       // If bFrcBitCntEx, card read (including parity)■
                              // must match this■
    short iPad4;■
    short iPad5;■
    short iPad6;■
    short iPad7;■
} tsIDBitCnts;■
```

sIDDispParms

```
typedef struct sIDDispParms //  Used for pcProx■
{■
    short iFACIDDelim; // If bStripFac & bSndFac & bUseDelFac2Id, this char■
                       // sent between FAC & ID■
    short iELDelim;    // If NOT bNoUseELChar, this char sent at end of ID■
    short iIDDispLen;  // If bFixLenDsp, ID padded with zeros to this length■
    short iFACDispLen; // If bFixLenDsp, FAC padded with zeros to this length■
    short iExOutputFormat ;  //If iExOutputFormat, Reader will output in Extended■
                          //mode for Plus Extended readers■
    short iPad5;■
    short iPad6;■
    short iPad7;■
} tsIDDispParms;■
```

                                           www.rfIDEAS.com

sIDDispParms2

```
typedef struct sIDDispParms2 //  Used for pcProx■
{■
    short iLeadChrCnt; // Tf bUseLeadChrs, contains the lead char count (<=3)■
    short iLeadChr0;   // These lead characters are filled in (up to 3)■
    short iLeadChr1;   // Leading character■
    short iLeadChr2;   // Leading character■
    short iCrdGnChr0;  // If non-zero, sent when ID goes Invalid■
    short iCrdGnChr1;  // If this and Chr0 non-zero, sent when ID goes Invalid■
    short iPad6;■
    short iPad7;■
} tsIDDispParms2;■
```

sIDDispParms3

```
typedef struct sIDDispParms3 //  Used for pcProx■
{■
    short iTrailChrCnt; // This contains the trail char count (<=3)■
    short iTrailChr0;   // These trail characters are filled in (up to 3)■
    short iTrailChr1;   // NOTE: LeadChrCnt + TrailCheCnt <= 3■
    short iTrailChr2;   //       LeadChrs have priority■
    short iPad4;■
    short iPad5;■
    short iPad6;■
    short iPad7;■
} tsIDDispParms3;■
```

sIdleParms

```
typedef struct sIdleParms //  Used for pcProx Sonar
{
    short Reserved1; //
    short PressRate; // Periodic Press Rate (1 Sec units) - Default Zero Off
    short Key1Mods;  // Key 1 modifier bit flags
    short Key1Code;  // Key 1 code
// If bit bDetDeadMan of Flags is SET, DMTODelta determines
// the spatial window within which the target must remain
// for DMTOTm seconds before being declared "dead".
// If DMTODelta is set to 1, the window is 1/3.472 ~= 0.3 inch.
// If DMTODelta is set to 3, the window is 3/3.472 ~= 0.9 inch.
//
// sIdleParms.Flags bit defines...
#define bDetDeadMan 0 // DeadMan T/O if set, use DMTODelta & DMTOTm above
#define bDetMinOOR  1 // Target too close to sensor (< MinDist out of range)
//
// sIdleParms.Flags.bDetMinOOR can be used in conjunction with
// sWalkAwayParms.MinFltRepRate to repeatedly send the sWalkAwayParms keys when
// the target is too close as specified by sSonarParms.MinDist for the time
// specified by sSonarParms.ORDBTm.
// This can be used for very close range detection of tape or "dixie cups" over
// the sensor or other objects placed in front of the sensor in an attempt to
// disable the send of the WalkAway key set. The repetitive send feature will
// disallow a manual logon after initial send of the WalkAway keys which results
// in an unprotected computer.
//
    short Flags;     // see above...
    short DMTODelta; // DeadMan T0Delta, 3.472 * Distance (in) = DMTODelta
    short DMTOTm;    // DeadMan Time Sec. untill Declared Dead while Deltas
                     // never exceeded
    short SNBlankTm; // Sonar drive blanking time (43us units)
} tsIdleParms;
```

sLEDCtrl

pcProx

```
typedef struct sLEDCtrl //  Used for pcProx
{
    // Set bAppCtrlsLED to 1 - The user of the SDK can control the LED according to
    //  the other settings in the sLEDCtrl struct.
    // Set bAppCtrlsLED to 0 - The reader will control the LED (ignoring the other
    //  settings in the sLEDCtrl struct).
    short bAppCtrlsLED;
    // Note:- For AMBER both iRedLEDState and iGrnLEDState will be 1.
    short iRedLEDState; // 0 == Off, 1 == On
    short iGrnLEDState; // 0 == Off, 1 == On
    short iPad3;
    short iPad4;
    short iPad5;
    short iPad6;
    // Set bVolatile to 1 - this will write configuration to RAM and the LED color
    //  will change. Setting will not be persistent (it will be volatile). Use this
    //  mode if you do not want the LED color to persist. This mode also prevents
    //  excessive writes to the reader's flash memory.
    // Set bVolatile to 0 - in order to change the LED color, you must follow this
    //  command with a WriteCfg(), which will change the LED's color and also
    //  persist the change to flash. Use this mode if you want to keep the setting
    //  saved in the reader's flash memory, and avoid calling it frequently since
    //  it can cause flash memory wear.
    short bVolatile;

} tsLEDCtrl;
```

sRangeInfo

```
typedef struct sRangeInfo //  Used for pcProx Sonar■
{■
  short wCurrRange;       // Current Object Range in Inches, Zero for > max or < min■
  short bInRange;         // Object In-Range is non-zero■
  short bInRangePend;     // Object In-Range Pending (still out-of-range)■
  short bOutRangePend;    // Object Out-of-Range Pending (still in-range)■
  short pad4;■
  short pad5;■
  short pad6;■
  short pad7;■
} tsRangeInfo;■
```

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sSonarParms

```
typedef struct sSonarParms //  Used for pcProx Sonar■
{■
    short LEDFlags;  // LED usage flags  [0]■
    short PingRate;  // Ping rate (msec) [332] (200 .. 1020)■
    short Reserved1; // 40KHz cycle cnt (READ ONLY)■
    short MinDist;   // Minimum Distance acceptable (inches) [14] (14 .. 59)■
    short MaxDist;   // Maximum Distance acceptable (inches) [36] (15 .. 60)■
    short ORDBTm;    // Debounce out of range time (seconds) [0]■
    short IRDBTm;    // Debounce in range time (seconds)  [0]■
    short StartDly;  // Cold start delay in seconds before joining USB  [0]■
} tsSonarParms;■
```

SOFTWARE DEVELOPERS KIT API

sTimeParms

pcProx

```
typedef struct sTimeParms //  Used for pcProx
{
    short iBitStrmTO;    // Wiegand read T/O after this msec time (4ms)
    short iIDHoldTO;     // Card ID valid for this msec time (48ms)
    short iIDLockOutTm;  // Squelch repetitive reader reports (usually > 1000)
                         // in msec (48msec gran.)
    short iUSBKeyPrsTm;  // Sets USB inter-key 'Press' time in 4ms units
    short iUSBKeyRlsTm;  // Sets USB inter-key 'Release' time in 4ms units
    short ExFeatures01;  // Extended Features (big parity Azery ext precision)
    short iPad6;         // Spare Unused
    short iTPCfgFlg3;    // Bit mapped tp Flags3 -- Use Flags3 structure instead
} tsTimeParms;
```

SOFTWARE DEVELOPERS KIT API

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sWalkAwayParms

```
typedef struct sWalkAwayParms //  Used for pcProx Sonar■
{■
    short KeyCount;         // Defined keys to follow (max 6 modifiers/keys) [0]■
    short InterKeyDelay; // Time (ms) between keys [512] (range 64..16320)■
    short Key1Mods;        // Key Modifiers...[0]■
    short Key2Mods;■
    short Key3Mods;■
    short Key4Mods;■
    short Key5Mods;■
    short Key6Mods;■
    short Flags0;■
    short MinFltRepRate; // Near fault send repeat rate in seconds■
    short Key1Code;        // Key Codes...[0]■
    short Key2Code;■
    short Key3Code;■
    short Key4Code;■
    short Key5Code;■
    short Key6Code;■
} tsWalkAwayParms;■
```

sWalkUpParms

```
typedef struct sWalkUpParms //  Used for pcProx Sonar■
{■
    short KeyCount;         // Defined keys to follow (max 6 modifiers/keys) [0]■
    short InterKeyDelay; // Time (ms) between keys [512] (range 64..16320)■
    short Key1Mods;        // Key Modifiers...[0]■
    short Key2Mods;■
    short Key3Mods;■
    short Key4Mods;■
    short Key5Mods;■
    short Key6Mods;■
    short Flags0;■
    short Reserved2;■
    short Key1Code;        // Key Codes...[0]■
    short Key2Code;■
    short Key3Code;■
    short Key4Code;■
    short Key5Code;■
    short Key6Code;■
} tsWalkUpParms;■
```

SOFTWARE DEVELOPERS KIT API

API Function List

The API functions are listed in alphabetical order. The function names are case sensitive, and lower case names are listed after the upper case names. Under each function header line is the supported operating systems shown on the left in red. The right side shows the supported products in blue.

Note: Do not compare version numbers from the pcProx firmware to enable or disable functions in your application as firmware version can change. The firmware version is for reference only.

You can speed up connection to USB readers by not searching for other devices, such as pcProx Sonar and pcSwipe reader, and also by skipping Serial and Ethernet devices.

SetDevTypeSrch(PRXDEVTYP_USB);
SetConnectProduct(PRODUCT_PCPROX);
rc = usbConnect();

BeepNow

Windows Linux Mac   pcProx pcSwipe

BSHRT BeepNow(BYTE count, BSHRT longBeep)

DESCRIPTION

Call this function with the number of desired short or long beeps.
This API is thread-safe.

PARAMETERS

count 1..N beeps, longBeep = TRUE, short beep = FALSE.
Range 1..5 short beeps and 1..2 long beeps.

RETURNS

TRUE = Success / FALSE = Failure / user defined Unsupported.

SEE ALSO

pcSwipeGetBeeper()
pcSwipeSetBeeper()
SetUnsupportedProductErrorCode()

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S O F T W A R E   D E V E L O P E R S   K I T   A P I

CheckTamperedFile

Windows Linux Mac

bool CheckTamperedFile(char *szFileName, int moduleType)

DESCRIPTION

This API verifies CRC of files.
By checking the CRC, it verifies whether the file is tampered or not. If a file is verified,it means that the data in the file has not been altered and could be loaded into a reader.

PARAMETERS

szfileName, which may include the complete path to the file name.
Module type tells about file type. It can be a .hwg+ or .ini file.
moduleType for hwg+ = 0, ini = 2.

RETURNS

TRUE - File verified.
FALSE - File tampered.

SOFTWARE DEVELOPERS KIT API

CheckTransparentMode

Windows Linux Mac

BSHRT CheckTransparentMode()

DESCRIPTION

Get the Transparent Mode status of a HID CDC Reader (e.g. Legic 6300 Reader), it checks if t

PARAMETERS

None

RETURNS

0 - Reader is not in transparent mode.
1 - Reader is in transparent mode.
2 - Reader does not supports transparent mode.

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SOFTWARE DEVELOPERS KIT API

ChkAddArrival

Windows   pcProx pcSwipe pcProx Sonar

short ChkAddArrival(char *pBuf)

DESCRIPTION

Check device add arrival

PARAMETERS

szname atleast of 511 (MAXDEVNAMESZ) characters

RETURNS

Check to see if device is in the list held by the library
TRUE = Success / FALSE = Failure

SEE ALSO

ChkDelRemoval()
chkAddArrival_char()
chkDelRemoval_char()

SOFTWARE DEVELOPERS KIT API

ChkDelRemoval

SOFTWARE DEVELOPERS KIT API

BSHRT ChkDelRemoval(char *szName)

DESCRIPTION

Check device delete removal

PARAMETERS

szname atleast of 511 (MAXDEVNAMESZ) characters

RETURNS

Check to see if device is NOT in the list held by the library
TRUE = Success / FALSE = Failure
The user should re-scan the USB device list using USBConnect()
if this returns TRUE.

SEE ALSO

chkDelRemoval_char()
chkAddArrival_char()
ChkAddArrival()

ComConnect

Windows Linux Mac

BSHRT ComConnect(long* plDID)

DESCRIPTION

Connect to reader attached to Serial COM Port or virtual com port. The com port range set by SetComSrchRange(lo,hi) will be searched during the ComConnect() USBConnect() call. The com ports that do not have an attached reader will take longer as they must time-out during the search. Defaults are 1..8 at powerup. Returns the firmware version (DeviceID) after searching ports for a device.
Note: Do not compare version numbers from the pcProx firmware to enable or disable functions in your application as firmware version can change. The firmware version is for reference only.

PARAMETERS

long pointer to receive DeviceID

RETURNS

TRUE = Success / FALSE = Failure

EXAMPLE

```
SetComSrchRange(1,8);
long DeviceID = 0;
ComConnect(&DeviceID);
--OR--
SetComSrchRange(1,8);
ComConnect(NULL);
```

SEE ALSO

SetComSrchRange()
SetComLinux()
SendGetFWVersion()

SOFTWARE DEVELOPERS KIT API

ComConnectPort

BSHRT ComConnectPort(WORD iPort, long* plDID)

DESCRIPTION

Connect to one serial device on COM port iPort (1..256)
Note: Do not compare version numbers from the pcProx firmware to enable or disable
functions in your application as firmware version can change. The firmware version
is for reference only.

PARAMETERS

Port number representing COM1 thru COM256 as 1 thru 256 inclusive
Pointer to get DeviceID or firmware version.

RETURNS

TRUE = Success connected to device / FALSE = Failure no connection.

SEE ALSO

USBConnect()
ComConnect()
ComDisconnect()
SetComLinux()
SendGetFWVersion()

SOFTWARE DEVELOPERS KIT API

ComDisconnect

Windows Linux Mac   pcProx pcSwipe

BSHRT ComDisconnect(void)

DESCRIPTION

Disconnect the active device from the serial device and close the COM port.

PARAMETERS

None

RETURNS

TRUE = Success / FALSE = Failure not connected, failed to close port, or active device is not serial.

SEE ALSO

ComConnect()

DisableTransparentMode

Windows Linux Mac

BSHRT DisableTransparentMode(int writeToFlash)

DESCRIPTION

Disable the transparent Mode of a HID CDC Reader (e.g. Legic 6300 Reader).

PARAMETERS

writeToFlash - For the use case of permanently enabling/disabling the Transparent Mode state
0 - Do not write to flash.
1 - Write to flash.

RETURNS

0 - Failure, the API failed to disable the transparent mode for the reader.
1 - Success, Transparent mode is disabled for the reader.
2 - Reader does not supports transparent mode.

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[Cached]

S O F T W A R E   D E V E L O P E R S   K I T   A P I

DumpRawFeatureReports

[Cached]

Windows

pcProx

BSHRT DumpRawFeatureReports(char *fname)

DESCRIPTION

This function writes a USB Raw Feature Report Dump to an ASCII text
file. The user provides the name of the text file and then call this function to handle
the actually file writing of the 8 byte transmitted and received feature reports.

PARAMETERS

FileName : *fname

RETURNS

TRUE if file is written successfully -- FALSE unsuccessful

SEE ALSO

SOFTWARE DEVELOPERS KIT API

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EnableTransparentMode

Windows Linux Mac

BSHRT EnableTransparentMode(int writeToFlash)

DESCRIPTION

Enable the transparent Mode of a HID CDC Reader (e.g. Legic 6300 Reader).

PARAMETERS

writeToFlash - For the use case of permanently enabling/disabling the Transparent Mode state
0 - Do not write to flash.
1 - Write to flash.

RETURNS

0 - Failure, the API failed to enable the transparent mode for the reader.
1 - Success, Transparent mode is enabled for the reader.
2 - Reader does not supports transparent mode.

SOFTWARE DEVELOPERS KIT API

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FindXport

Windows Linux Mac

```
short  FindXport(short ip0,
            short ip1,
            short ip2,
            short ip3begin,
            short ip3end)
```

DESCRIPTION

Ethernet readers use an Xport interface to convert serial data to Ethernet.
This function sends a UDP message to a range of IP address and waits 500 msec
for a reply packet identifying it as an Xport. Once the Xport is found it can be
connected and you can access the serial reader.

PARAMETERS

IP address range ip0,ip1,ip2 first 3 digits of IP, ip3begin .. ip3end inclusive
range of IP addresses to check for an Xport device.

RETURNS

1..254 last digit of IP address of firstt found device. If none found return 0.

EXAMPLE

```
ip3 = FindXport(192,168,0, 1,254);
if(ip3)
{
        SetIpPort(192.168,0,ip3,10001);
        SetDevTypeSrch(PRXDEVTYP_TCP);
        USBConnect(&Luid);
}
```

SOFTWARE DEVELOPERS KIT API

GetAZERTYShiftLock

BSHRT GetAZERTYShiftLock(void)

DESCRIPTION

Get the state of the Shift Lock. Some keyboards such as French keyboards
have a shift lock key in place of the US caps lock key. This affects
how the top row of numbers and punctuation are used.

PARAMETERS

None

RETURNS

TRUE on / FALSE off

SEE ALSO

SetAZERTYShiftLock()

GetActConfig

short GetActConfig(void)

S O F T W A R E   D E V E L O P E R S   K I T   A P I

DESCRIPTION

Get the active configuration (0..N) of the pcProx Plus. For devices that only have one configuration this will return 0. All devices have one configuration, so zero is always valid.

PARAMETERS

None

RETURNS

0, 1, 2..N

SEE ALSO

GetMaxConfig()
SetActConfig()

GetActDev

Windows Linux Mac

short GetActDev(void)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

Return the current active device as an index into the list, 0..(GetDevCnt()-1).
Note: The USB order of devices found can be random. Use the LUID to uniquely tag your devices. Then enumerate through the active device list for the LUID you need.

PARAMETERS

None

RETURNS

Active device 0..126

GetActiveID

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

short GetActiveID(BYTE *pBuf, short wBufMaxSz)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

Reads the active data from the card "presently on the reader". The Least significant bit is Buf[0] bit 0. It is recommended not to call this faster than 250msec, or about twice the data hold time of the active card. Call sooner than 250msec will not be sent to the reader but will return cached data. This API is thread-safe.

PARAMETERS

pBuf pointer (reference) to character buffer to receive the card ID currently within reader range. wBufMaxSz specifies the size of the byte buffer, and is useful to limit the buffer transfer to less than 8 characters. Values above 8 will transfer 8 bytes max.

RETURNS

Returns the number of bits (0..63) received from the reader representing the card ID or sometime the card CSN.
The return count represents how many bits in the buffer are valid ID bits.
It does NOT include the parity bits that may have been stripped from the ID through the use of the leading and/or trailing parity bit counts.
A return value of zero means there is either no card within RF field or an error was encountered. GetLastLibErr() may be used to differentiate between the two possibilities.
This function was originally designed for pcProx. On pcSwipe it returns the track and field as defined pcSwipeSetActiveID(). New designs should use pcSwipeGetTrackData().
For pcProx Sonar devices the buffer has 3 entries (4 bytes).
[0] = 1 in range, 0 out of range,
[1] Distance
[2] luid low,
[3] luid high.

SEE ALSO

GetActiveID32()
GetQueuedID()
pcSwipeGetTrackData()

GetActiveID32

short GetActiveID32(BYTE *pBuf, short wBufMaxSz)

DESCRIPTION

This is the 32 byte version of GetActiveID() for FIP-201 and CHUID
readers to get the card ID with up to 255 bits of data. Cards with larger
ID's than 64 bits will be truncated with GetActiveID(), so this function
is recommended instead.
This API is thread-safe.
See GetActiveID() documentation as all else applies.

PARAMETERS

32 byte buffer, number of bytes max.

RETURNS

Number of bits read 0..255

SEE ALSO

GetActiveID()
GetQueuedID()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

GetBTLEConfiguration

SOFTWARE DEVELOPERS KIT API

short GetBTLEConfiguration()

DESCRIPTION

Gets the BTLE configuration of the reader

RETURNS

0 for BTLE off/125KHz-13.56MHz radios off
1 for BTLE off/125KHz-13.56MHz radios on
2 for BTLE on/125KHz-13.56MHz radios off
3 for BTLE on/125KHz-13.56MHz radios on

SEE ALSO

SetBTLEConfiguration()

GetBeeperVolume

S O F T W A R E   D E V E L O P E R S   K I T   A P I

short GetBeeperVolume(void)

DESCRIPTION

Gets the volume level for the pcProx Plus(version 2).

RETURNS

Volume level for the pcProx Plus(version 2) Reader.
For non pcProx Plus(version 2) returns -1.

SEE ALSO

SetBeeperVolume()

GetBprRlyCtrl

Windows Linux Mac

BSHRT GetBprRlyCtrl(tsBprRlyCtrl *psBRCtrl)

DESCRIPTION

Get beeper (and relay on OEM W2-USB readers) controls.

PARAMETERS

psBRCtrl pointer to structure to read beeper/relay control information.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

SetLEDCtrl()

SOFTWARE DEVELOPERS KIT API

GetBuildDate

Windows Linux Mac

const char* GetBuildDate(void)

DESCRIPTION

Read the device Build Date Information.

PARAMETERS

None

RETURNS

Returns the Build Date of reader on success
In case of failure it returns an empty string.

GetCPUInfo

Windows Linux Mac

const char* GetCPUInfo(void)

DESCRIPTION

Read the device CPU Information.

PARAMETERS

None

RETURNS

Returns the CPU information on success
In case of failure it returns an empty string.

SOFTWARE DEVELOPERS KIT API

GetCardPriority

SOFTWARE DEVELOPERS KIT API

long GetCardPriority(void)

DESCRIPTION

Get the Card Type Priority for the active configuration. A long integer is used to detect errors. The Priority is 0 or 1, and a -1 indicates an error.

PARAMETERS

None

RETURNS

0 = Low priority, 1 = high priority, -1 error.

SEE ALSO

SetCardTypePriority()
GetActConfig()
SetActConfig()

GetCardType

long GetCardType(void)

DESCRIPTION

Get the Card Type 0x0000..0xFFFE for the given configuration.
See #define CARDTYPE_<name> in pcProxAPI.h

PARAMETERS

None

RETURNS

0..0xFFFE for valid card types. -1 for error, disconnected,
or non pcProx Plus reader.

SEE ALSO

SetCardTypePriority()
GetActConfig()
SetActConfig()

SOFTWARE DEVELOPERS KIT API

GetCopyrightInfo

Windows Linux Mac

const char* GetCopyrightInfo(void)

DESCRIPTION

Read the device Copyright Information.

PARAMETERS

None

RETURNS

Returns the Copyright information on success
In case of failure it returns an empty string.

SOFTWARE DEVELOPERS KIT API

GetDID

pcProx pcSwipe pcProx Sonar

short GetDID(void)

DESCRIPTION

Return the firmware version Major,Minor,Build as bits 15..8
Bits 7..4 and bits 3..0 respectively. Example: 0x0F12 = 15.1.2
Note: Do not compare version numbers from the pcProx firmware to enable or disable
functions in your application as firmware version can change. The firmware version
is for reference only and should not be used to make decision on what features
are available.

PARAMETERS

None

RETURNS

Returns the Firmware version of the current active device.

SEE ALSO

GetFirmwareVersion()

GetDevByLUID

pcProx pcSwipe pcProx Sonar

short GetDevByLUID(short LUID, short index)

DESCRIPTION

Find the device index used by SetActDev and GetActDev for the given LUID
Start at the active device index parameter. If index < 0 then -1 is returned.
If none of the connected devices has this LUID value return -1.
This function does not change the active device, you must call SetActDev
to set the active device by the returned index.

PARAMETERS

Logical Unit ID 0 .. 65535

RETURNS

0..N else -1 for not found

EXAMPLE

int FirstIndex = GetDevByLUID(1234, 0);
int SecondIndex = GetDevByLUID(1234, FirstIndex+1);

SEE ALSO

SetLUID()
GetLUID()

SOFTWARE DEVELOPERS KIT API

GetDevCnt

short GetDevCnt(void)

DESCRIPTION

Returns the number of pcProx devices found on this machine from USBConnect().

PARAMETERS

None

RETURNS

Number of device on bus: 0..127

SEE ALSO

GetActDev()

　　　　　　　Page 67

GetDevName

BSHRT GetDevName(char *szName)

DESCRIPTION

Get Device Name, this can be a long USB device name the users
buffer should be at least 511 (MAXDEVNAMESZ) characters. Can be used
under Linux but makes less sense.

PARAMETERS

szName A string containing COMx, or USB PID VID of the communications
port the reader is found on.

RETURNS

The active RS-232 or Virtual COM port number (1, 2, ...).
999 will be returned for USB devices.

SEE ALSO

rf_GetDevName()
getDevName_char()

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GetDevType

short GetDevType(void)

DESCRIPTION

Same as rf_GetDevType. Avoids VB name space problem with VB's GetDevType()
VB user can call rf_GetDevType();

RETURNS

Return PRXDEVTYP_<name> for USB, Serial or TCP/IP on the Active Device.

SEE ALSO

rf_GetDevType()

　　　　　　Page 69

GetExtendedPrecisionMath

Windows Linux Mac

BSHRT GetExtendedPrecisionMath(void)

DESCRIPTION

Return the state of the extended precision math flag. This affects the FAC value when it is longer than 32 bits.

PARAMETERS

None

RETURNS

TRUE on / FALSE off

SEE ALSO

SetExtendedPrecisionMath()

GetFWFilename

Windows Linux Mac

char * GetFWFilename()

DESCRIPTION

Read the device firmware filename.

PARAMETERS

None

RETURNS

Returns the Firmware Filename on success
In case of failure it returns an empty string.

GetFirmwareVersion

DWORD GetFirmwareVersion(short hardware, short module)

DESCRIPTION

Some devices have multiple firmware versions to report. This function returns
the unsigned long (DWORD) firmware version of the hardware and module pair. Not
all modules are available for all hardware. These return 0 for unavailable.
The version 0x01023456 can be expressed as "1.2.34.56".
Note: Do not compare version numbers from the pcProx firmware to enable or disable
functions in your application as firmware version can change. The firmware version
is for reference only. For pcSwipe only Hardware "Main Cpu" App and bootloader are
available.

PARAMETERS

Hardware 0 = Main CPU, 1 = Aux Cpu, 2-FF unused
Module   0 = Application, 1 = Bootloader, 2 = Modem

RETURNS

0x000001 .. 0xFFFFFF for valid versions, 0 or code set by
SetUnsupportedProductErrorCode() indicates unavailable.

SEE ALSO

GetDID()
SetUnsupportedProductErrorCode()

GetFlags

Windows Linux Mac

BSHRT GetFlags(tsCfgFlags *psCfgFlgs)

DESCRIPTION

Get parameters from device. Note pcSwipe and pcProx Sonar only use the bHaltKBSnd flag within this structure.

PARAMETERS

psCfgFlgs pointer to structure to receive Configuration Flags information.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

SetFlags()

GetFlags2

Windows Linux Mac

BSHRT GetFlags2(tsCfgFlags2 *psCfgFlgs)

DESCRIPTION

Get the values from device into the flags2 data structure.

PARAMETERS

psCfgFlgs2 pointer to structure to receive Configuration Flags2 information.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

SetFlags2()

GetFlags3

BSHRT GetFlags3(tsCfgFlags3 *psCfgFlgs)

DESCRIPTION

Get the values from device into the flags3 data structure.
pcSwipe only uses the bUseNumKP flag. pcSwipe only uses the UseNumKP
parameter of this structure.

PARAMETERS

psCfgFlgs3 pointer to structure to receive Configuration Flags3 information.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

SetFlags3()

GetFullFWVersion

char * GetFullFWVersion()

DESCRIPTION

Reads the device's full Firmware version including the String version number.

PARAMETERS

None

RETURNS

Returns the Firmware version with the string version number for loon readers having version number 16.7 or greater.
In case of failure it returns Null.

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SOFTWARE DEVELOPERS KIT API

GetHIDGuid

BSHRT GetHIDGuid(GUID *pGuid)

DESCRIPTION

Return the type of interface which is always a (Human Interface Device) HID.
The return value is a constant.

PARAMETERS

GUID pointer (from Windows USB SDK)

RETURNS

Always TRUE = Success

SOFTWARE DEVELOPERS KIT API

GetIDBitCnts

Windows Linux Mac

BSHRT GetIDBitCnts(tsIDBitCnts *psIDBitCnts)

DESCRIPTION

Get information regarding the ID bit and counts.

PARAMETERS

psIDBitCnts pointer to structure to receive Bit Count information.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

SetIDBitCnts()

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GetIDDispParms

SOFTWARE DEVELOPERS KIT API

BSHRT GetIDDispParms(tsIDDispParms *psIDDispParms)

DESCRIPTION

Get display parameters.

PARAMETERS

psIDDispParms pointer to structure to receive ID Display information.

RETURNS

Returns non-zero on success, zero otherwise.

SEE ALSO

SetIDDispParms()

GetIDDispParms2

Windows Linux Mac

BSHRT GetIDDispParms2(tsIDDispParms2 *psIDDispParms)

DESCRIPTION

Get display parameters 2.

PARAMETERS

psIDDispParms2 pointer to structure to receive ID Display2 information.

RETURNS

Returns non-zero on success, zero otherwise.

SEE ALSO

SetIDDispParms2()

SOFTWARE DEVELOPERS KIT API

GetIDDispParms3

Windows Linux Mac

BSHRT GetIDDispParms3(tsIDDispParms3 *psIDDispParms)

DESCRIPTION

Get display parameters3.

PARAMETERS

psIDDispParms3 pointer to structure to receive ID Display3 information.

RETURNS

Returns non-zero on success, zero otherwise.

SEE ALSO

SetIDDispParms3()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

GetIdleParms

BOOL GetIdleParms(tsIdleParms* psIdleParms)

DESCRIPTION

 Get the pcProx Sonar Idle Parameters as defined in the structure below.
 These key strokes are typed when the object enters the sensor range.

```
typedef struct sIdleParms
{
    short Reserved1; // Leave as-is
    short PressRate; // Periodic Press Rate (1 second units) - [0 disabled]
    short Key1Mods;  // Key 1 modifier bit flags
    short Key1Code;  // Key 1 code
    short Flags;     // see below.
    short DMTODelta; // DeadMan T0Delta, 3.472 * Distance (in) = DMTODelta
    short DMTOTm;    // DeadMan Time (seconds) - Time till Declared Dead
                     // while Deltas never exceeded
    short SNBlankTm; // pcProx Sonar drive blanking time (43usec units)
} tsIdleParms;
```

PARAMETERS

 tssIdleParms structure

RETURNS

 TRUE success / FALSE Fail

SEE ALSO

 SetIdleParms()

SOFTWARE DEVELOPERS KIT API

GetLEDCtrl

—

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

BSHRT GetLEDCtrl(tsLEDCtrl *psLEDCtrl)

DESCRIPTION

Get LED configuration of the reader.

PARAMETERS

A pointer to the psLEDCtrl struct which contains the LED configuration.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

SetLEDCtrl()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

GetLUID

S O F T W A R E   D E V E L O P E R S   K I T   A P I

short GetLUID(void)

DESCRIPTION

Get Logical Unit ID from last ReadCfg() of device.

RETURNS

LUID a user defined 16-bit ID (0-65536) to be associated with the current selected device.

SEE ALSO

SetLUID()
SetActDev()

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GetLastLibErr

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

long GetLastLibErr(void)

DESCRIPTION

Returns the last library error code (see Library Error Codes) for the
active device. The last error code is valid until another library call is made.
This does not reset the last library error code. When a function returns
FALSE and has failed, it is good practice to call this function to check the
error code. See pcProxAPI.h for "Error Bits".

PARAMETERS

None

RETURNS

long error code value bits

SEE ALSO

WriteCfg()
SetActDev()

GetLibVersion

SOFTWARE DEVELOPERS KIT API

```
BSHRT  GetLibVersion(short* piVerMaj,
            short* piVerMin,
            short* piVerDev)
```

DESCRIPTION

Get the version of the library code. This does not communicate with any device.
It returns constants from the DLL or Linux shared library.
The intended interpretation of the version is VerMaj.VerMin.VerDev.

PARAMETERS

piVerMaj pointer or NULL (reference) to integer to receive the major version
piVerMin pointer or NULL (reference) to integer to receive the minor version
piVerDev pointer or NULL (reference) to integer to receive the build version

RETURNS

Null pointers will not be used to return data.
Returns Always TRUE / Success

EXAMPLE

```
short major,minor,build;
if(GetLibraryVersion(&major,&minor,&build) != FALSE)
{
    printf("%d.%d.%d",major,minor,build);
}
if(GetLibraryVersion(&major,&minor,NULL) != FALSE)
{
    printf("%d.%d.X",major,minor);
}
if(GetLibraryVersion(NULL,NULL,&build) != FALSE)
{
    printf("Build # ",build);
}
```

GetMaxConfig

WORD GetMaxConfig(void)

DESCRIPTION

Get number of pcProx Plus Reader Configurations. For pcProx Plus dual frequency readers this will be 1 or more and 0 for Legacy non pcProx Plus readers.

PARAMETERS

RETURNS

0, 1..N -- 0 for pcProx, 1 to N where N is max N-1 Config for pcProx Plus.

SEE ALSO

GetActConfig()
SetActConfig()

SOFTWARE DEVELOPERS KIT API

GetMyIpAddress

`Windows Linux Mac`

ULONG GetMyIpAddress(void)

DESCRIPTION

Return the IP address of the local machine as an unsigned long. If dotted quad is 192.168.1.2 then the long in hex will be 0x0201A8C0. To convert to bytes as ip1,ip2,ip3,ip4 shift the byte in mutiples of eight as follows:
iplong = GetMyIpAddress();
BYTE ip0 = iplong & 255; // 192
BYTE ip1 = (iplong >> 8) & 255; // 168
BYTE ip2 = (iplong >> 16) & 255; // 1
BYTE ip3 = (iplong >> 24) & 255; // 2

PARAMETERS

None

RETURNS

Unsigned long. Least significant byte is the first byte of the dotted quad notation.

SEE ALSO

SetDevTypeSrch(PRXDEVTYP_TCP)
SetIpPort()
FindXport()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

GetObjRangeInfo

Windows Linux Mac

BOOL GetObjRangeInfo(tsRangeInfo* psRangeInfo)

DESCRIPTION

Talks with pcProx Sonar and retrieves info data block.
Get the pcProx Sonar info structure as defined below. Determine if an object
is within range and if the time in or out of range has been satisfied.

```
typedef struct sRangeInfo
{
    short wCurrRange;     // Range in Inches - 0 if >max or <min
    short bInRange;       // Object In-Range is non-zero
    short bInRangePend;   // Object In-Range Pending (still out-of-range)
    short bOutRangePend;  // Object Out-of-Range Pending (still in-range)
    short pad4;
    short pad5;
    short pad6;
    short pad7;
} tsRangeInfo;
```

GetPlatformType

const char* GetPlatformType(void)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

Read the device Platform Type Example: Wren or Loon.

PARAMETERS

None

RETURNS

Returns the Platform Type on success
In case of failure it returns an empty string.

GetProduct

S O F T W A R E   D E V E L O P E R S   K I T   A P I

ULONG GetProduct(void)

DESCRIPTION

Get the active device's product type. The product type is one of the PRODUCT_<name>'s. See pcProxAPI.h

EXAMPLE

if(GetProduct() == PRODUCT_PCPROX)
{
        printf("The active device is a pcProx\n");
}

SEE ALSO

SetConnectProduct()
USBConnect()
usbConnect()

GetQueuedID

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

short GetQueuedID(short clearUID, short clearHold)

DESCRIPTION

Read the Queued ID data from the reader.
This returns the last card read by the reader, age and overrun counter.
The age is is from 0 - 0x0FFFF in 48msec units. The max time is 52 minutes.
The overrun is the number of cards read before the UID was transferred to the PC.
It is recommended not to call this faster than 250msec, or about
twice the data hold time of the active card.
After this function returns TRUE (Success) you may call GetQueuedID_index()

PARAMETERS

If clearUID is set then the card, and overrun counters will be
cleared for the next read. Older firmware sets the age to zero, newer firmware
sets the age to 0xFFFF.
If clearHold is set then the reader is ready to read another card immediately.

RETURNS

Returns TRUE success, or FALSE failed (perhaps function is not available in
the firmware). IF TRUE use GetQueuedID_index() to get the rest of the data
from the library.

SEE ALSO

GetQueuedID_index(short index)
GetQueuedID_index()
GetActiveID()
GetActiveID32()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

GetQueuedID_index

Windows Linux Mac   pcProx pcSwipe

long GetQueuedID_index(short index)

DESCRIPTION

Return specific part of the data read by GetQueuedID()
GetQueuedID() actually gets data from the reader,
this functions just marshalls the data back to the caller.
GetQueuedID_index()

PARAMETERS

index 0..35

RETURNS

index 0..31 = Bytes 0..31 of the UserID
index 32 = short Number of bits read 0-256.
index 33 = short Age   (16 bits) 0 - 65,535 48msec ticks or 0 to 52 minutes.
index 34 = short Overrun counter number of cards before UID transferred to PC.
index 35 = short lockout timer 0-256 (0=ready to read).
Overrun clips at 255, and age at 0x0FFFF.

SEE ALSO

GetQueuedID()

GetSN

pcProx pcSwipe pcProx Sonar

DWORD GetSN(void)

DESCRIPTION

Get serial number from last ReadCfg() on device. Future expansion. Most devices will have an unprogrammed serial number of 0xFFFF.

PARAMETERS

None

RETURNS

TRUE = Success / FALSE = Failure

SOFTWARE DEVELOPERS KIT API

                                       www.rfIDEAS.com

GetSepFldData

BSHRT GetSepFldData(BYTE *pBuf, short wBufMaxSz)

DESCRIPTION

Get the FIPS 201 credentials and delimiters for all user defined fields.
This is for pcProx or OEM Wiegand converter board that can read FIPS 201
CHUID's. Usually from 75 to 245 bits make up some or all of the FIPS 201
fields. OEM Readers such as the HID-G3 75 bit reader is support by the
OEM converter board.

PARAMETERS

pBuf pointer to memory array to return the FIPS 201 Chuid data.
wBufMaxSz is always bytes.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

SetSepFldData()

GetSerialNumber

Windows Linux Mac

const char* GetSerialNumber(void)

DESCRIPTION

Read the Electronic Serial Number of Wren Serial Reader.

PARAMETERS

None

RETURNS

Returns the Electronic Serial Number on success
In case of failure it returns an empty string.

SEE ALSO

getESN()

GetSonarParms

BOOL GetSonarParms(tsSonarParms* psSonarParms)

DESCRIPTION

 Get pcProx Sonar Parameters. This function returns a structure of values
 as defined below.

```
typedef struct tsSonarParms
{
    short LEDFlags;  // LED usage flags  [0]
    short PingRate;  // Ping rate (msec) [332] (min 200, max 1020)
    short Reserved1; // 40KHz cycle cnt (READ ONLY)
    short MinDist;   // Minimum Distance acceptable (inches) [14] (min 14, max 59)
    short MaxDist;   // Maximum Distance acceptable (inches) [36] (min 15, max 60)
    short ORDBTm;    // debounce out of range time (seconds) [0]
    short IRDBTm;    // debounce in range time (seconds)  [0]
    short StartDly;  // cold start delay in seconds before joining USB  [0]
} tsSonarParms;
```

PARAMETERS

 tsSonarParms structure

RETURNS

 TRUE success / FALSE Fail

SEE ALSO

 SetSonarParms()

GetTimeParms

[Cached]

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

BSHRT GetTimeParms(tsTimeParms *psTimeParms)

DESCRIPTION

Get device timing information. Times are in milliseconds, keyboard times
have a granularity of 4ms, card times have 48ms.

PARAMETERS

psTimeParms pointer to structure containing timing information from device.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

SetTimeParms()

GetUnsupportedProductErrorCode

pcProx pcSwipe pcProx Sonar

S O F T W A R E   D E V E L O P E R S   K I T   A P I

BSHRT GetUnsupportedProductErrorCode(void)

DESCRIPTION

Read back the unsupported error code set by SetUnsupportedProductErrorCode().

PARAMETERS

None

RETURNS

BSHRT value set by SetUnsupportedProductErrorCode().

SEE ALSO

SetUnsupportedProductErrorCode()

GetVidPidVendorName

char * GetVidPidVendorName(void)

DESCRIPTION

Return the VendorName string for the active device. This comes from the optional pcProxVidPid.txt file.

PARAMETERS

None

RETURNS

Returns the pointer to a static buffer. For non pcProx devices a pointer to an empty string is returned.

SEE ALSO

getVidPidVendorName_char()

SOFTWARE DEVELOPERS KIT API

GetWalkAwayParms

Windows Linux Mac   pcProx Sonar

BOOL GetWalkAwayParms(tsWalkAwayParms* psWalkAwayParms)

DESCRIPTION

Get pcProx Sonar Walk Away Parameters. This function returns a structure of values as defined below. These key strokes are typed when the object leaves the sensor range.

typedef struct tsWalkAwayParms
{
 short KeyCount;   // Defined keys to follow (max 6 modifiers/keys) [0]
 short InterKeyDelay; // Time between key presses (msec) [512] (min 64, max 16320)
 short Key1Mods;   // Key Modifiers..[0]
 short Key2Mods;   // Bit 0..7 Left Ctrl,Shift,Alt,GUI, Right Ctrl,Shift,Alt,GUI
 short Key3Mods;
 short Key4Mods;
 short Key5Mods;
 short Key6Mods;
 short Flags0;
 short MinFltRepRate; // Near fault send repeat rate in seconds
 short Key1Code;   // USB Key Scan Codes 'a' = 4, b=5, 'c'=6 etc,
 short Key2Code;   //
 short Key3Code;
 short Key4Code;
 short Key5Code;
 short Key6Code;
} tsSonarParms;

PARAMETERS

 tsWalkAwayParms structure

RETURNS

 TRUE success / FALSE Fail

SEE ALSO

 SetSonarParms()

GetWalkUpParms

Windows Linux Mac   pcProx Sonar

BOOL GetWalkUpParms(tsWalkUpParms* psWalkUpParms)

DESCRIPTION

Get the pcProx Sonar Walk Away Parameters as defined in the structure below.
These key strokes are typed when the object enters the sensor range.
typedef struct tsWalkAwayParms
{
 short KeyCount;   // Defined keys to follow (max 6 modifiers/keys) [0]
 short InterKeyDelay; // Time (ms) between key presses [512] (range 64..16320)
 short Key1Mods;   // Key Modifiers..[0]
 short Key2Mods;   // Bit 0..7 Left Ctrl,Shift,Alt,GUI, Right Ctrl,Shift,Alt,GUI
 short Key3Mods;
 short Key4Mods;
 short Key5Mods;
 short Key6Mods;
 short Flags0;
 short MinFltRepRate; // Near fault send repeat rate in seconds
 short Key1Code;   // USB Key Scan Codes 'a' = 4, b=5, 'c'=6 etc,
 short Key2Code;   //
 short Key3Code;
 short Key4Code;
 short Key5Code;
 short Key6Code;
} tsSonarParms;

PARAMETERS

 tsWalkAwayParms structure

RETURNS

 TRUE success / FALSE Fail

SEE ALSO

SetWalkUpParms()

HaltKBSends

BOOL HaltKBSends(BOOL bHalt)

DESCRIPTION

Halt Keyboard Sending of data. Also known as API mode, or silent mode. When set data will not be keystroked out, all pcProx Sonar information must be read using the API.

PARAMETERS

boolean TRUE = quite, FALSE = normal keystroking mode.

RETURNS

Return: TRUE / else FALSE = Failed.

S O F T W A R E   D E V E L O P E R S   K I T   A P I

IsBTLEPresent

short IsBTLEPresent()

DESCRIPTION

To check whether the BTLE is present

RETURNS

True or False

SEE ALSO

GetBTLEConfiguration()

SOFTWARE DEVELOPERS KIT API

IsCardTypeInList

Windows Linux Mac

BSHRT IsCardTypeInList(WORD findCT)

DESCRIPTION

Is CardType in list? If the given card type is in the pcProx Plus Firmware
List Return TRUE, else return FALSE. A 0 card type (CARDTYPE_OFF) is always
in the list and returns TRUE. If the pcProx Plus does not have a list then
all cards types are assumed to be in the list.
See #define CARDTYPE_<name> in pcProxAPI.h

PARAMETERS

Card type 0..0xFFFF

RETURNS

TRUE card type in list -- FALSE not in list

SEE ALSO

GetCardType()

SOFTWARE DEVELOPERS KIT API

LoadIniFile

Windows Linux Mac   **pcProx**

short LoadIniFile(char* fileName)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

Load the Configuration in the reader which is mentioned in the file.
Note: This API only accepts the Secure Blob format of the ini file (generated from the Smartcard Manager utility).

PARAMETERS

fileName that may include complete path to the file name.

RETURNS

TRUE / Success - secure key is valid and ASCII file was read.
FALSE / Failed - secure key is invalid, file could not be read.

Ping

Windows Linux Mac   pcProx pcSwipe

long Ping(void)

DESCRIPTION

Send a packet to the active device and return the ping time in milliseconds if the device is online. If offline return 0. Serial devices will be slower than USB devices. The ping function is resource hungry therefore pinging the device at the same rate as reading a card ID is not recommended.

PARAMETERS

None

RETURNS

1..65,535 milliseconds, 0 = no reply or unsupported.

SEE ALSO

USBConnect()

SOFTWARE DEVELOPERS KIT API

QuickReadSerialPort

Windows Linux Mac

DWORD QuickReadSerialPort(char *buf, DWORD count)

DESCRIPTION

Check for serial data on connected COM port, and receive available bytes.
This function sets the timeout values to 75msec so it is quicker than
the ReadSerialPort() function.

PARAMETERS

pointer to char buffer, and count of max desired characters to receive.

RETURNS

Actual number of characters received.

SEE ALSO

readSerialPort_char()
ReadSerialPort()
WriteSerialPort()

ReadBaudRate

BSHRT ReadBaudRate()

DESCRIPTION

Reads the active baud rate written in the device.

PARAMETERS

None

RETURNS

baud rate on sucess else -1 on failure or if reader is unsupported.
Baud codes meaning :
00 = 9600;
01 = 19200;
02 = 38400;
03 = 57600;
04 = 115200;

SEE ALSO

WriteBaudRate(BSHRT baudrateCode)
SetBaudRate(int baudrate)

ReadCfg

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

BSHRT ReadCfg(void)

DESCRIPTION

A call to this function pulls the device configuration information into the library memory space to be manipulated by the Get*() and Set*() functions. After altering the data the user must call WriteCfg() to write the changes back to device so they can take effect.
This API is thread-safe.

PARAMETERS

None

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

WriteCfg()

ReadDevCfgFmFile

pcProx pcSwipe pcProx Sonar

BSHRT ReadDevCfgFmFile(char *szFileName)

DESCRIPTION

Open and read an ASCII file and load the setting into the library memory.
The device can be flashed by calling WriteCfg(). This function reads
files created with the WriteProxCfgToFile() function.
Note: This is the ASCII file format. It is not compatible with the
simpler Visual Basic pcProxConfig format and will return an error if
those are read.

PARAMETERS

szFileName file name that may include complete path to the file name.

RETURNS

TRUE / Success ASCII file was read.
FALSE file may be invalid locked or the path may be invalid.

SEE ALSO

WriteDevCfgToFile()
readDevCfgFmFile_char()
writeDevCfgToFile_char()

SOFTWARE DEVELOPERS KIT API

ReadDevCfgFromSecureFile

Windows Linux Mac

BSHRT ReadDevCfgFromSecureFile(char* szFileName)

DESCRIPTION

It will check whether the secure Key which is present in the file is valid or not. Then it will Open and read an ASCII file and load the setting into the library memory. The device can be flashed by calling WriteCfg(). This function reads files created with the WriteDevCfgToSecureFile() function.
Note: This is the ASCII file format. It is not compatible with the simpler Visual Basic pcProxConfig format and will return an error if those are read.

PARAMETERS

szFileName file name that may include complete path to the file name.

RETURNS

TRUE / Success secure key is valid and ASCII file was read.
FALSE - secure key is invalid, file could not be read.

ReadDevTypeFromFile

Windows Linux Mac

pcSwipe pcProx Sonar

WORD ReadDevTypeFromFile(char *szFileName)

DESCRIPTION

Read Device Type from .mag file. Reading a file written by a
USB into a serial device and vice versa will cause incorrect delimiters
due to ASCII and scan code differences.

PARAMETERS

szFileName file name that may include complete path to the file name.

RETURNS

-1 Error can not read file or determine type.

SEE ALSO

ReadDevCfgFmFile()
WriteDevCfgToFile()

SOFTWARE DEVELOPERS KIT API

ReadSecureData

Windows Linux Mac

bool ReadSecureData(BYTE *headerBuffer, BYTE *dataBuffer)

DESCRIPTION

 Read the configuration as requested in header(blob details: Type, config, length, BSV).

PARAMETERS

headerBuffer pointer (reference) to character buffer to send the blob details to reader*
dataBuffer pointer (reference) to character buffer to get the data present on reader*

RETURNS

Returns true on success and false on failure.

ReadSerialPort

Windows Linux Mac   pcProx pcSwipe

DWORD ReadSerialPort(char *buf, DWORD count)

DESCRIPTION

Check for serial data on connected COM port and receive available bytes.
This uses a two second timeout.

PARAMETERS

pointer to char buffer, and count of max desired characters to receive.

RETURNS

Actual number of characters received.

SEE ALSO

QuickReadSerialPort()
quickReadSerialPort_char()
readSerialPort_char()

BSHRT ResetFactoryDflts(void)

DESCRIPTION

This sets the devices configuration to the Factory Default values. It is like a WriteCfg() call. Before returning to the caller, this function calls ReadCfg() to reload the configuration information (which may have changed) into the library memory. The GetLastLibErr() return will either the ReadCfg() error code or success. This takes about 1200msec on USB and longer for serial devices.

PARAMETERS

None

RETURNS

TRUE = Success / FALSE = Failure

SOFTWARE DEVELOPERS KIT API

ResetUserDflts

Windows Linux Mac   pcProx Sonar pcProx Plus

BOOL ResetUserDflts(void)

DESCRIPTION

Set the device flash memory of the pcProx Sonar configuration to the last saved user defaults. Execution time ~ 2 seconds.
For pcProx Plus this recalls the stored settings.

PARAMETERS

None

RETURNS

TRUE success / FALSE Fail

SEE ALSO

SaveUserDflts()

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S O F T W A R E   D E V E L O P E R S   K I T   A P I

SaveUserDflts

Windows Linux Mac

BOOL SaveUserDflts(void)

DESCRIPTION

Save the current device's working configuration as the user defaults.
user defaults. Execution time ~ 2 seconds.
For pcProx Plus this Writes the stored settings.

PARAMETERS

None

RETURNS

TRUE success / FALSE Fail

SEE ALSO

ResetUserDflts()

SOFTWARE DEVELOPERS KIT API

SendGetFWVersion

Windows Linux

void SendGetFWVersion(void)

DESCRIPTION

Connect a Serial COM Port.
This API is used to populate the FWVersion[][] for Serial readers.
Sample code
SetComSrchRange(1,12)
long DeviceID = 0;
ComConnect(&DeviceID);
SendGetFWVersion();
GetFirmwareVersion(0,1);
--OR--
SetComSrchRange(1,12)
long DeviceID = 0;
short iPort = 8;
ComConnectPort(iPort,&DeviceID);
SendGetFWVersion();
GetFirmwareVersion(0,1);

PARAMETERS

None

RETURNS

None

SEE ALSO

ComConnect()
ComConnectPort()

SOFTWARE DEVELOPERS KIT API

SetAZERTYShiftLock

Windows Linux Mac

BSHRT SetAZERTYShiftLock(short on)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

Set the state of the Shift Lock. Some keyboards such as French keyboards have a shift lock key in place of the US caps lock key. This affects how the top row of numbers and punctuation are used.

PARAMETERS

boolean value true = on

RETURNS

TRUE success / FALSE failed
GetAZERTYShiftLock()

SetActConfig

Windows Linux Mac

S O F T W A R E   D E V E L O P E R S   K I T   A P I

BSHRT SetActConfig(BYTE n)

DESCRIPTION

Set the active configuration (0..N) of the pcProx Plus device.

PARAMETERS

Configuration number 0..N (GetMaxConfig() - 1)

RETURNS

TRUE success / FALSE Fail
Non pcProx Plus readers will return 0.

SEE ALSO

GetMaxConfig()
GetActConfig()

SetActDev

BSHRT SetActDev(short iNdx)

DESCRIPTION

Set the active device. Up to MAXDEVSOPEN devices may be present. The selected device is the active device that ReadCfg() and WriteCfg() operate on.

PARAMETERS

Set the active device where iNdx selects a new device for processing.
This does not require a WriteCfg() to be performed as it is only selecting
the device to which we are communicating with via the library.

RETURNS

TRUE = Success / FALSE = Failure index out of range

SEE ALSO

GetActDev()

SOFTWARE DEVELOPERS KIT API

SetBTLEConfiguration

Windows Linux Mac

BSHRT SetBTLEConfiguration(BSHRT level)

DESCRIPTION

Sets the BTLE configuration of the reader.

PARAMETERS Level 0,1,2,3,4

0:BTLE off/125KHz-13.56MHz radios off.
1:BTLE off/125KHz-13.56MHz radios on.
2:BTLE on/125KHz-13.56MHz radios off.
3:BTLE on/125KHz-13.56MHz radios on.
4:BTLE off/125KHz-13.56MHz radios toggle.
others, BTLE off/125KHz-13.56MHz radios off.

RETURNS

True or False

SEE ALSO

GetBTLEConfiguration()
#define BTLEOFF_RADIOOFF   0
#define BTLEOFF_RADIOON   1
#define BTLEON_RADIOOFF   2
#define BTLEON_RADIOON   3
#define BTLE_RADIOTOGGLE   4

SOFTWARE DEVELOPERS KIT API

SetBaudRate

S O F T W A R E   D E V E L O P E R S   K I T   A P I

void SetBaudRate(int baudrate)

DESCRIPTION

Sets the baud rate inside the SDK upon which the reader will communicate.
By default baud rate will be set to 9600.
Not to be confused with WriteBaudRate.

PARAMETERS

baudrate. Such as: 9600, 19200, 38400, 57600, 115200.

RETURNS

None

SEE ALSO

WriteBaudRate(BSHRT baudrateCode)
ReadBaudRate()

SetBeeperVolume

Windows Linux Mac

BSHRT SetBeeperVolume(BSHRT volumeLevel)

DESCRIPTION

Sets the volume level for the pcProx Plus (version 2) reader.

PARAMETERS

volumeLevel 0..3,
0-off, 1-low, 2-med, 3-High

RETURNS

TRUE = Success / FALSE = Failure / user defined Unsupported.

SEE ALSO

GetBeeperVolume()

SetBprRlyCtrl

BSHRT SetBprRlyCtrl(tsBprRlyCtrl *psBRCtrl)

DESCRIPTION

Set beeper (and relay on OEM W2-USB readers) controls.

PARAMETERS

psBRCtrl pointer to structure containing new beeper/relay control bit.
Use WriteCfg() to update the hardware outputs.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

GetBprRlyCtrl()
GetLEDCtrl()

SOFTWARE DEVELOPERS KIT API

SetCardTypePriority

Windows Linux Mac

BSHRT SetCardTypePriority(WORD cardType, BSHRT priority)

DESCRIPTION

Set the Card Type 0x0000..0xFFFF for the active configuration.
See #define CARDTYPE_<name> in pcProxAPI.h
Card types not understood by the device firmware are ignored and will return as (0x0000) Off. The priority bit if non zero sets this configuration to have priority over other configurations that are set to zero. The priority allows dual frequency cards or multiple cards to read in a predictable manner. Only one configuration should have the priority bit set, otherwise unpredicatble results may occur on multiple card reads.

PARAMETERS

Sixteen bit card type, and priority bit.

RETURNS

TRUE success, FALSE failed, disconnected, or non pcProx Plus reader.

SEE ALSO

GetCardType()
SetActConfig()
GetActConfig()

SOFTWARE DEVELOPERS KIT API

SetComLinux

S O F T W A R E   D E V E L O P E R S   K I T   A P I

BSHRT SetComLinux(WORD index, const char *devName)

DESCRIPTION

Map Linux /dev/tty name to serial port number 1..MAXLINUXCOMPORT
This allows traditional functions calls to work on Linux devices
using ports as COMx, where x is 1 to MAXLINUXCOMPORT .

PARAMETERS

COM port 1..MAXLINUXCOMPORT, hold MAXLINUXDEVPATH characters.

RETURNS

TRUE / Success else FALSE index out of range, or non Linux OS.

SEE ALSO

SetComSrchRange()
ComConnect()

SetComSrchRange

Windows Linux Mac

BSHRT SetComSrchRange(WORD iMin, WORD iMax)

DESCRIPTION

Set serial port COM search range used use by ComConnect.

PARAMETERS

COM port low, com port high.
Valid range is inclusive from 1 to 256 for Windows and
1 to MAXLINUXCOMPORT for Linux.

RETURNS

TRUE Success / FALSE values out of range.

SEE ALSO

ComConnect()
VirtualComSearchRange()
SetComLinux()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

SetConnectProduct

S O F T W A R E   D E V E L O P E R S   K I T   A P I

BSHRT SetConnectProduct(ULONG bits)

DESCRIPTION

Set the Connect functions to only allow these type of products to be connected.
by default all products are scanned for. The product type is one of the
PRODUCT_<name>'s see pcProxAPI.h for bits.

SEE ALSO

GetProduct()
USBConnect()
usbConnect()

EXAMPLE

SetConnectProduct(PRODUCT_PCPROX | PRODUCT_PCSWIPE);
usbConnect();
SetConnectProduct(PRODUCT_ALL);
usbConnect();

SetDevTypeSrch

Windows Linux Mac

BSHRT SetDevTypeSrch(short iSrchType)

DESCRIPTION

Set the type of device interface USB and/or Serial to search for when connecting using USBConnect().
Searching for serial devices is much slower than USB only devices.
This only sets the desired type. It does not search.

PARAMETERS

iSrchType 0=USB only, 1=Serial (RS-232) Only, -1=Both USB and Serial

RETURNS

TRUE = Success / FALSE = Failure (invalid parameter)
Default is both devices USB and Serial.

EXAMPLE

SetDevTypeSrch(PRXDEVTYP_ALL);
SetDevTypeSrch(PRXDEVTYP_USB);
SetDevTypeSrch(PRXDEVTYP_SER);
SetDevTypeSrch(PRXDEVTYP_TCP);

SEE ALSO

ComConnect()
USBConnect()
Constants in pcProxAPI.h header file
#define PRXDEVTYP_ALL -1
#define PRXDEVTYP_USB 0
#define PRXDEVTYP_SER 1
#define PRXDEVTYP_TCP 2

SOFTWARE DEVELOPERS KIT API

SetExtendedPrecisionMath

BSHRT SetExtendedPrecisionMath(short on)

DESCRIPTION

Set the state of the extended precision math flag. This affects the FAC value when it is longer than 32 bits. When off FAC values over 32 bits will not be displayed properly.

PARAMETERS

None

RETURNS

TRUE on / FALSE off

SEE ALSO

GetExtendedPrecisionMath()

SOFTWARE DEVELOPERS KIT API

pcProx pcSwipe pcProx Sonar

BSHRT SetFlags(tsCfgFlags *psCfgFlgs)

DESCRIPTION

Set parameters to device.
Note pcSwipe and pcProx Sonar only use the bHaltKBSnd flag within this structure.

PARAMETERS

psCfgFlgs pointer to structure containing new configuration flags information.
This does NOT write the configuration items to the device, just
to library memory.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

GetFlags()

SetFlags2

BSHRT SetFlags2(tsCfgFlags2 *psCfgFlgs)

DESCRIPTION

Set the values from flags2 data structure into the device. This does NOT write the configuration items to the device, just to library memory.

PARAMETERS

psCfgFlgs2 pointer to structure to write Configuration Flags2 information.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

GetFlags2()

SetFlags3

S O F T W A R E   D E V E L O P E R S   K I T   A P I

BSHRT SetFlags3(tsCfgFlags3 *psCfgFlgs)

DESCRIPTION

Set the values from the data structure into the device. This does NOT
write the configuration items to the device, just to library memory.
pcSwipe only uses the bUseNumKP flag of this structure.

PARAMETERS

psCfgFlgs3 pointer to structure to write Configuration Flags3 information.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

GetFlags3()

SetHashKeyData

Windows Linux Mac

BSHRT SetHashKeyData(tsHashKeyData *HashKeyData)

DESCRIPTION

Set the Hash Keys Data in to the Hash field. This does NOT write the configuration items to the device, just to library memory.

PARAMETERS

HashKeyData pointer to structure containing new key data.

RETURNS

TRUE = Success / FALSE = Failure

SOFTWARE DEVELOPERS KIT API

SetIDBitCnts

Windows Linux Mac

BSHRT SetIDBitCnts(tsIDBitCnts *psIDBitCnts)

DESCRIPTION

Set the number of bits in the ID field. This does NOT write the configuration items to the device, just to library memory.

PARAMETERS

psIDBitCnts pointer to structure containing new bit count information.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

GetIDBitCnts()

SOFTWARE DEVELOPERS KIT API

SetIDDispParms

Windows Linux Mac

BSHRT SetIDDispParms(tsIDDispParms *psIDDispParms)

DESCRIPTION

Set display parameters to control how the card ID is displayed when keystroked out or sent serially on serial and RS-232 readers.

PARAMETERS

psIDDispParms pointer to structure containing new ID Display information.

RETURNS

Returns non-zero on success, zero otherwise.

SEE ALSO

GetIDDispParms()

SOFTWARE DEVELOPERS KIT API

SetIDDispParms2

Windows Linux Mac

BSHRT SetIDDispParms2(tsIDDispParms2 *psIDDispParms)

DESCRIPTION

Set display parameters2. Mainly controls the leading and trailing delimiters. Three delimiters total are allowed and can be split between leading and trailing characters.

PARAMETERS

psIDDispParms2 pointer to structure to write ID Display2 information.

RETURNS

Returns non-zero on success, zero otherwise.

SEE ALSO

GetIDDispParms2()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

SetIDDispParms3

BSHRT SetIDDispParms3(tsIDDispParms3 *psIDDispParms)

DESCRIPTION

Set display parameters3.

PARAMETERS

psIDDispParms3 pointer to structure to write ID Display3 information.

RETURNS

Returns non-zero on success, zero otherwise.

SEE ALSO

GetIDDispParms3()

SetIdleParms

Windows Linux Mac   pcProx Sonar

BOOL SetIdleParms(tsIdleParms* psIdleParms)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

 Set the pcProx Sonar Idle Parameters as as defined in the structure below.
 These key strokes are typed when the object enters the sensor range.
typedef struct sIdleParms
{
```
    short Reserved1; // Leaves as is.
    short PressRate; // Periodic Press Rate (1 second units) - [0 disabled]
    short Key1Mods;  // Key 1 modifier bit flags
    short Key1Code;  // Key 1 code
    short Flags;     // see below.
    short DMTODelta; // DeadMan T0Delta, 3.472 * Distance (in) = DMTODelta
    short DMTOTm;    // DeadMan Time (seconds) - Time till Declared Dead
             // while Deltas never exceeded
    short SNBlankTm; // pcProx Sonar drive blanking time (43usec units)
} tsIdleParms;
```

PARAMETERS

 tssIdleParms structure

RETURNS

 TRUE success / FALSE Fail

SEE ALSO

 GetIdleParms()

SetIpPort

S O F T W A R E   D E V E L O P E R S   K I T   A P I

BSHRT SetIpPort(BYTE i0,
            BYTE i1,
            BYTE i2,
            BYTE i3,
            unsigned short port)

DESCRIPTION

Set the TCP/IP/UDP source address to be used to connect to Ethernet readers.
A call to USBConnect() will check USB, TCP/IP and Serial ports in that order.
When TCP/IP devices are checked this is the IP address and port used. The
default Xport port value is 10,001.

PARAMETERS

4 byte dotted ip notation such as 192.168.0.1 port 10,001
SetIpPort(192,168,0,1, 10001);

RETURNS

Always returns TRUE / Success

SEE ALSO

FindXport()
SetDevTypeSrch(PRXDEVTYP_TCP)

SetLEDCtrl

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

BSHRT SetLEDCtrl(tsLEDCtrl *psLEDCtrl)

DESCRIPTION

Sets the LED configuration of the reader and controls the color of the LED (red, green, amber, or off).

PARAMETERS

A pointer to the psLEDCtrl struct which contains the LED configuration.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

GetLEDCtrl()

SetLUID

BSHRT SetLUID(short LUID)

DESCRIPTION

Set Logical unit ID to device.

PARAMETERS

LUID is a user defined 16-bit ID (0-65536) to be associated with the
current device. Returns non-zero on Success, zero otherwise.
To help you identify one device from another you can set their LUID
values. Devices may enumerate in random order and the LUID is the
safest way to tell them apart.
Note: You may have up to MAXDEVSOPEN readers on a given computer. This does
NOT write the configuration items to the device, just to library memory.
Use WriteCfg() to write to device memory. Setting the reader to defaults
does not erase the LUID.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

GetLUID()

SetMarkerFunction

Windows Linux Mac

void SetMarkerFunction(RFPRXLOG pfLog)

DESCRIPTION

Set function to be used as a callback to log errors.

PARAMETERS

The pfLog should have the prototype of pfCallBackLog(char szBuf, int ilen);

RETURNS

void

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SetSepFldData

Windows Linux Mac

BSHRT SetSepFldData(BYTE *pBuf, short wBufMaxSz)

DESCRIPTION

Set the FIPS 201 credentials and delimiters for all user defined fields.
This is for pcProx or OEM Wiegand converter board that can read FIPS 201
CHUID's. Usually from 75 to 245 bits make up some or all of the FIPS 201
fields. OEM Readers such as the HID-G3 75 bit reader is supported by the
OEM converter board.

PARAMETERS

pBuf pointer to memory array to set the FIPS 201 Chuid data.
wBufMaxSz is always bytes.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

GetSepFldData()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

SetSonarParms

[Cached]

Windows Linux Mac

pcProx Sonar

BOOL SetSonarParms(tsSonarParms* psSonarParms)

DESCRIPTION

Set pcProx Sonar Parameters. This function set the parameters as defined by
the structure of values below. Typical default values show in brackets.
typedef struct tsSonarParms
{

    short LEDFlags; // LED usage flags [0]
    short PingRate; // Ping rate (msec) [332] (min 200, max 1020)
    short Reserved1; // 40KHz cycle cnt (READ ONLY)
    short MinDist;   // Minimum Distance acceptable (inches) [14] (min 14, max 59)
    short MaxDist;   // Maximum Distance acceptable (inches) [36] (min 15, max 60)
    short ORDBTm;   // debounce out of range time (seconds) [0]
    short IRDBTm;   // debounce in range time (seconds) [0]
    short StartDly; // cold start delay in seconds before joining USB [0]
} tsSonarParms;

PARAMETERS

tsSonarParms structure

RETURNS

TRUE success / FALSE Fail

SEE ALSO

GetSonarParms()

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SetTimeParms

BSHRT SetTimeParms(tsTimeParms *psTimeParms)

DESCRIPTION

Set device timing information. Set the Key-stroke down and release times in 4 millisecond units. Card times have 48 millisecond granularity.

PARAMETERS

psTimeParms pointer to structure containing new Timing information.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

GetTimeParms()

SOFTWARE DEVELOPERS KIT API

SetUnsupportedProductErrorCode

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

void SetUnsupportedProductErrorCode(BSHRT v)

DESCRIPTION

This function allows you to set the return code for functions not supported by
a product to aid you in porting pcProx applications to pcSwipe and/or pcProx Sonar.
Set return value for the unsupported functions to return. Some functions that return
a BYTE may also return this value. By Default this is 0x00 (FALSE) but can be set
to any BSHRT value you desire to help know unsupported errors from function errors.
The default value is set each time the library loads.

PARAMETERS

This value is returned when a function is not supported on a product.
For example calling SetFlags2() on a pcSwipe product would return
this error code.

RETURNS

void

SEE ALSO

GetUnsupportedProductErrorCode()

SetWalkAwayParms

Windows Linux Mac

BOOL SetWalkAwayParms(tsWalkAwayParms* psWalkAwayParms)

DESCRIPTION

Set pcProx Sonar Walk Away Parameters. This function sets the values as defined
in the structure below. These key strokes are typed when the object leaves
the sensor range.

```
typedef struct tsWalkAwayParms
{
 short KeyCount;      // Defined keys to follow (max 6 modifiers/keys) [0]
 short InterKeyDelay; // Time between key presses (msec) [512] (min 64, max 16320)
 short Key1Mods;      // Key Modifiers..[0]
 short Key2Mods;       // Bit 0..7  Left Ctrl,Shift,Alt,GUI, Right Ctrl,Shift,Alt,GUI
 short Key3Mods;
 short Key4Mods;
 short Key5Mods;
 short Key6Mods;
 short Flags0;
 short MinFltRepRate; // Near fault send repeat rate in seconds
 short Key1Code;      // USB Key Scan Codes 'a' = 4, b=5, 'c'=6 etc,
 short Key2Code;      //
 short Key3Code;
 short Key4Code;
 short Key5Code;
 short Key6Code;
} tsSonarParms;
```

PARAMETERS

tsWalkAwayParms structure

RETURNS

TRUE success / FALSE Fail

SEE ALSO

GetWalkAwayParms()

SOFTWARE DEVELOPERS KIT API

SetWalkUpParms

Windows Linux Mac

BOOL SetWalkUpParms(tsWalkUpParms* psWalkUpParms)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

Get the pcProx Sonar Walk Up Parameters as defined in the structure below.
These key strokes are typed when the object enters the sensor range.
typedef struct tsWalkAwayParms
{
 short KeyCount;   // Defined keys to follow (max 6 modifiers/keys) [0]
 short InterKeyDelay; // Time (ms) between key presses [512] (range 64..16320)
 short Key1Mods;   // Key Modifiers..[0]
 short Key2Mods;   // Bit 0..7 Left Ctrl,Shift,Alt,GUI, Right Ctrl,Shift,Alt,GUI
 short Key3Mods;
 short Key4Mods;
 short Key5Mods;
 short Key6Mods;
 short Flags0;
 short Reserved2;
 short Key1Code;   // Key Codes..[0]
 short Key2Code;   // USB Key Scan Codes 'a' = 4, b=5, 'c'=6 etc,
 short Key3Code;
 short Key4Code;
 short Key5Code;
 short Key6Code;
} tsWalkUpParms;*} tsSonarParms;

PARAMETERS

 tsWalkAwayParms structure

RETURNS

 TRUE success / FALSE Fail

SEE ALSO

 GetWalkUpParms()

USBConnect

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

SOFTWARE DEVELOPERS KIT API

BSHRT USBConnect(long* plDID)

DESCRIPTION

This is the main function used to connect to USB and/or Serial devices. If no USB devices are found then the serial port range will be searched. This function connects to a USB and/or SERIAL device and returns the Device ID or firmware version. This API is thread-safe.

PARAMETERS

plDID is a pointer (reference) to long integer to receive the USB Device ID (firmware version) This function (if successful) opens and maintains a Handle to the USB Device. The Device ID is the firmware version. A long integer is used to avoid sign-extension problems in the return value and its use.

RETURNS

Returns non-zero on success, zero otherwise. Firmware values of 0x00000111 should be interpreted as v 01.11. When several USB device are on the bus they may not enumerate in the same order on each connect call. Use the LUID to distinguish one device from another. On library version 2.00 and above, all pcProx devices are found in this routine and the DID of the first (index = 0) is returned and the first is made the Active Device.

Note: Do not compare version numbers from the pcProx firmware to enable or disable functions in your application as firmware version can change. The firmware version is for reference only.

EXAMPLE

```
USBDisconnect(); long DeviceID = 0;
if(USBConnect(&DeviceID) == TRUE) {
      for(;;) {
          BYTE buffer[8];
          int Bits = GetActiveID(buffer,sizeof(buffer));
          Sleep(250); // Sleep a quarter of a second. i.e 250 milliseconds
      }
}
```

SEE ALSO

usbConnect()
USBDisconnect()
SetDevTypeSrch()

USBDisconnect

pcProx pcSwipe pcProx Sonar

BSHRT USBDisconnect(void)

DESCRIPTION

This function closes the open handle to ALL USB device(s) and/or open serial port(s). It may be called at any time even if USBConnect() has not been called. It is good practice is to call USBDisconnect before calling any Connect function to clear any pending errors.
Errors can happen if the device is physically removed from the USB bus while the user application is open and connected to the device.
This API is thread-safe.

PARAMETERS

None

RETURNS

Always TRUE = Success

SEE ALSO

USBConnect()

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SOFTWARE DEVELOPERS KIT API

VirtualComSearchRange

BSHRT VirtualComSearchRange(WORD iMin, WORD iMax)

DESCRIPTION

Set the virtual com port search range. When this is set the given range of COM ports will be searched during the next Serial port COM connect. Any virtual com ports from USB or PCMCIA adapters with the rf IDEAS USB VID and matching USB PID will be opened and tested against the protocol.
The Windows registry is read to find the VCOM ports. Powerup defaults are 1..256. This function has no effect under Linux.

PARAMETERS

> min serial port 1..256 range
> max serial port 1..256 range
> call with (0,0) to disable all Virtual ports

RETURNS

> Return: TRUE / else FALSE for value out of range.

SOFTWARE DEVELOPERS KIT API

WriteBLEDataToFile

[Cached]

Windows Linux Mac

pcProx

BSHRT WriteBLEDataToFile(char* szFileName)

DESCRIPTION

Write an ASCII file with all the BLE data of most recent
device BLE setting. This writes the buffered data stored
in the reader to a file.

PARAMETERS

szFileName file name that may include complete path to the file name.

RETURNS

TRUE / Success file was written with BLE data.
FALSE file may be locked or the path is invalid or BLE Data could not be
calculated.

SOFTWARE DEVELOPERS KIT API

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WriteBLEDataToReader

Windows Linux Mac

BSHRT WriteBLEDataToReader(char* szFileName)

DESCRIPTION

Configure the reader with new BLE data
by sending BLE Data payloads from a file to the reader.

PARAMETERS

szFileName file name that may include complete path to the file name.

RETURNS

TRUE / Success reader have written with new BLE data.
FALSE / Failure reader have not written with new BLE data.

WriteBLEKeyToFile

Windows Linux Mac

BSHRT WriteBLEKeyToFile(char* szFileName)

DESCRIPTION

Write an ASCII file with all the BLE Key of most recent
device BLE setting. This writes the buffered key stored
in the reader to a file.

PARAMETERS

szFileName file name that may include complete path to the file name.

RETURNS

TRUE / Success file was written with BLE key.
FALSE file may be locked or the path is invalid or BLE key could not be
calculated.

WriteBLEKeyToReader

Windows Linux Mac

BSHRT WriteBLEKeyToReader(char* szFileName)

DESCRIPTION

Configure the reader with new BLE key
by sending BLE key payloads from a file to the reader.

PARAMETERS

szFileName file name that may include complete path to the file name.

RETURNS

TRUE / Success reader have written with new BLE key.
FALSE / Failure reader have not written with new BLE key.

WriteBaudRate

BSHRT WriteBaudRate(BSHRT baudrateCode)

DESCRIPTION

Writes new baud rate in the reader. However, the baud rate must be supported by the reader.

PARAMETERS

Baud rate code, where
00 = 9600;
01 = 19200;
02 = 38400;
03 = 57600;
04 = 115200;

RETURNS

1 on success and 0 on failure.

SEE ALSO

ReadBaudRate()
SetBaudRate(int baudrate)

S O F T W A R E   D E V E L O P E R S   K I T   A P I

WriteCfg

Windows Linux Mac

BSHRT WriteCfg(void)

DESCRIPTION

A call to this function writes all configuration information in the library memory space to the device for non-volatile storage. Any changed parameters take effect immediately after WriteCfg(). The actual write internally within the device is not done until all critical pending actions are complete. This may take up to two seconds, typically 1200 msec to complete.
pcProx Plus(version 2) readers takes only 20ms to complete the write.
This API is thread-safe.

PARAMETERS

None

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

ReadCfg()

WriteDevCfgToFile

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

BSHRT WriteDevCfgToFile(char *szFileName)

DESCRIPTION

Write an ASCII file with all the setting of most recent
the device setting read by ReadCfg(). This writes the buffered
data held by the library to a file. The user should call ReadCfg()
or WriteCfg() to make sure the correct values are sync'ed with the
device memory. The file can be loaded back into the device with
function ReadDevCfgFmFile()
Note: The file is in ASCII format. It is not compatible with the
simpler Visual Basic pcProxConfig format. You may edit the ASCII
text file, taking care to preserve the text formatting.

PARAMETERS

szFileName file name that may include complete path to the file name.

RETURNS

TRUE / Success file was written.
FALSE file may be locked or the path is invalid.

SEE ALSO

ReadDevCfgFmFile()
readDevCfgFmFile_char()
writeDevCfgToFile_char()

SOFTWARE DEVELOPERS KIT API

WriteDevCfgToSecureFile

Windows Linux Mac

BSHRT WriteDevCfgToSecureFile(char* szFileName)

DESCRIPTION

Write an ASCII file with all the setting of most recent
the device setting read by ReadCfg(). This writes the buffered
data held by the library to a file. The user should call ReadCfg()
or WriteCfg() to make sure the correct values are sync'ed with the
device memory. It will generate the secure key for the file and append
at the end/top of the file.
Note: The file is in ASCII format. It is not compatible with the
simpler Visual Basic pcProxConfig format. You may edit the ASCII
text file, taking care to preserve the text formatting.

PARAMETERS

szFileName file name that may include complete path to the file name.

RETURNS

TRUE / Success file was written with secure key.
FALSE file may be locked or the path is invalid or secure key could not be
calculated.

WriteSecureData

[Cached]

bool WriteSecureData(BYTE *blobBuffer, int blobLen)

DESCRIPTION

Write the configuration as requested in header(blob details: Type, config, length, BSV).

PARAMETERS

blobBuffer pointer (reference) to character buffer to send the blob details and data to reader*
bloblen is the interger value for length of buffer whose pointer (reference) is sent.

RETURNS

Returns true on success and false on failure.

[Cached]

WriteSerialPort

Windows Linux Mac   pcProx pcSwipe

DWORD WriteSerialPort(char *buf, DWORD count)

DESCRIPTION

Write data to serial port. This allows user to also do their own MFP24 or ACP commands while using the binary protocol on the reader.

PARAMETERS

pointer to char buffer, and count of max desired characters to transmit.

RETURNS

Actual number of characters sent.

SEE ALSO

QuickReadSerialPort()
quickReadSerialPort_char()
readSerialPort_char()

chkAddArrival_char

Windows   pcProx pcSwipe pcProx Sonar

short chkAddArrival_char(short index, char c)

DESCRIPTION

C# interface to Check device add arrival function.

PARAMETERS

index 0..255. 255 trigger I/O call. When index is 0 internal
DeviceName buffer is zeroed out.
DeviceName atleast of 511 (MAXDEVNAMESZ) characters

RETURNS

Check to see if device is in the list held by the library
TRUE = Success / FALSE = Failure

SEE ALSO

ChkAddArrival()
ChkDelRemoval()
chkDelRemoval_char()

chkDelRemoval_char

S O F T W A R E   D E V E L O P E R S   K I T   A P I

short chkDelRemoval_char(short index, char c)

DESCRIPTION

C# interface to Check device removal function.

PARAMETERS

index 0..255. 255 trigger I/O call. When index is 0 internal
DeviceName buffer is zeroed out.
DeviceName atleast of 511 (MAXDEVNAMESZ) characters

RETURNS

Check to see if device is in the list held by the library
TRUE = Success / FALSE = Failure

SEE ALSO

chkAddArrival_char()
ChkAddArrival()
ChkDelRemoval()

comConnect

Windows Linux Mac

BSHRT comConnect(void)

DESCRIPTION

Connect to Serial COM Port.
The com port range set by SetComSrchRange(lo,hi)
will search for a pcProx reader. The com ports search
that do not have a reader will take longer as they time-out.
This is a wrapper around comConnect. It returns the same value. It
does not require a pointer to return the DeviceID. Use GetDID() to
retrieve the device ID firmware version.
Defaults are com ports 1..8

PARAMETERS

None

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

ComConnect()
SetComLinux()

SOFTWARE DEVELOPERS KIT API

comConnectPort

Windows Linux Mac   pcProx pcSwipe

BSHRT comConnectPort(WORD iPort)

DESCRIPTION

Connect to one serial device on COM port iPort (1..256)

PARAMETERS

Port number 1..256 representing COM1 thru COM256 on Windows.
Linux serial ports 1..MAXLINUXCOMPORT can be mapped to
the /dev/ path.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

usbConnect()
comConnect()
ComConnectPort()
SetComLinux()

getActiveCardData

BSHRT getActiveCardData(void)

DESCRIPTION

Read the Active Card Data. This returns three main pieces of informations: The ScanCount, Card Serial Number (CSN), and Card ID (ID). The Scan count is a one byte value that starts at zero duing powerup and increments and wraps from 255 back to zero. The CSN is preceded by the byte count of the CSN size. The ID is preceded by the Bit Count of the card ID. Here is an example of the third card read, scan count = 3, the CSN is 0x12,0x34,0x56,0x78 and a 26 bit ID is 0xAB,0xCD,0xEF,0x80.

The buffer[0x00..0x0A] = 0x03,0x04,0x12,0x34,0x56,0x78,0x1A,0xAB,0xCD,0xEF,0x80

Retriving bytes:

getActiveCardData_byte(0) => 0x03 Scan Count

getActiveCardData_byte(1) => 0x04 4 Bytes of CSN (2)..(5)

getActiveCardData_byte(6) => 0x1A Bit Count for following ID

PARAMETERS

None

RETURNS

Returns TRUE = Success, FALSE Error or no card read or function not supported in Firmware.

EXAMPLE

```
BYTE Count = getActiveCardData_byte(0);
BYTE BytesInCSN = getActiveCardData_byte(1);
BYTE BitsInID = getActiveCardData_byte(2+BytesInCSN);
BYTE BytesInID = (BitsInID+7)/8;
BYTE IDBuffer[11];
int idstart = BytesInCSN+3;
for(int i=0; i<BytesInID; i++)
{
        IDBuffer[i] = getActiveCardData_byte(idstart+i);
}
```

SEE ALSO

getActiveCardData_byte()

SOFTWARE DEVELOPERS KIT API

getActiveCardData_byte

BSHRT getActiveCardData_byte(short index)

DESCRIPTION

After the call to getActiveCardData() which reads the card scan count, CSN, and card ID into an internal buffer, the bytes from the buffer are retrieved using this function.

PARAMETERS

Index into byte buffer.

RETURNS

Returns 0..FF = Error or no card read. Or return 0 if index is out of range. and return unsupported code for non pcProx devices.
Index Value
----
0   ScanCount
1   CSN Byte that follow
2..N   CSN Data is [1] is non zero
N+1   ID Bit Count
N+2.. Bit of ID
Zero filled

SEE ALSO

getActiveCardData()

getActiveID

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

short getActiveID(short wBufMaxSz)

DESCRIPTION

Read the active data from the card presently on the reader.
This function will return the number of bits read.
Then you call getActiveID_byte(index) to return each byte.
Index of 0 is the Least Significant Byte holding Bits 0..7
It is recommended you do not call this faster than 250msec, or about
twice the data hold time of the active card.
This API is thread-safe.

PARAMETERS

wBufMaxSz specifies the size of the character buffer. A max of 8 will be
used so this is useful only to limit the buffer
transfer to < 8 characters. Values > 8 will still only transfer
8 characters with no error.

RETURNS

Returns the number of bits received from the reader representing the ID.
The return count represents how many bits in the buffer are valid ID bits,

SEE ALSO

getActiveID_byte()

www.rfIDEAS.com

SOFTWARE DEVELOPERS KIT API

getActiveID32

SOFTWARE DEVELOPERS KIT API

short getActiveID32(short wBufMaxSz)

DESCRIPTION

Read the active ID from the device and buffer the data for
the function getActiveID_byte().
It is recommended you do not call this faster than 250msec, or about
twice the data hold time of the active card.
This API is thread-safe.

PARAMETERS

wBufMaxSz specifies the size of the character buffer. A max of 32 will be
used so this is useful only to limit the buffer transfer.

RETURNS

Number of bits read from card. Zero if no card present or error.
It does NOT include the parity bits that may have been stripped from the ID
through the use of the Leading and/or Trailing parity bit counts.
A return of zero means that there is either no card within range or that
there was another error encountered. GetLastLibErr() may be used to differentiate
between the two possibilities.

SEE ALSO

GetActiveID32()

getActiveID_byte

Windows Linux Mac

BYTE getActiveID_byte(short index)

DESCRIPTION

This function should be called after getActiveID32()
This function will return the byte at the give index 0..31
Index 0 is the Least Significant Byte holding Bits 0..7

PARAMETERS

index value 0 through 7 inclusive.
if the index is out of range the value returned will be zero.

RETURNS

Returns the byte at buffer[index] from the card read by GetActiveID() or
GetActiveID32() or getActiveID32()

SOFTWARE DEVELOPERS KIT API

www.rfIDEAS.com

getBprRlyCtrl_bVolatile

Windows Linux Mac

short getBprRlyCtrl_bVolatile()

DESCRIPTION

C# interface for safe code. Get BprRlyCtrl member's bVolatile value or error code.
You must call ReadCfg() first. This function calls GetBprRlyCtrl() internally.
Note: 0 == commit to EE, 1 == Don't store to EE.

PARAMETERS

None

RETURNS

short value from typedef struct tsBprRlyCtrl or error if GetBprRlyCtrl() fails.

getBprRlyCtrl_iBeeperState

[Cached]

pcProx pcSwipe

short getBprRlyCtrl_iBeeperState()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get BprRlyCtrl member's iBeeperState value or error code.
You must call ReadCfg() first. This function calls GetBprRlyCtrl() internally.
Note: 0 == Off, 1 == On.

PARAMETERS

None

RETURNS

short value from typedef struct tsBprRlyCtrl or error if GetBprRlyCtrl() fails.

getBprRlyCtrl_iPad0

Windows Linux Mac

short getBprRlyCtrl_iPad0()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get BprRlyCtrl member's iPad0 value or error code. You must call ReadCfg() first. This function calls GetBprRlyCtrl() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsBprRlyCtrl or error if GetBprRlyCtrl() fails.

getBprRlyCtrl_iPad3

Windows Linux Mac

short getBprRlyCtrl_iPad3()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get BprRlyCtrl member's iPad3 value or error code. You must call ReadCfg() first. This function calls GetBprRlyCtrl() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsBprRlyCtrl or error if GetBprRlyCtrl() fails.

getBprRlyCtrl_iPad4

Windows Linux Mac

short getBprRlyCtrl_iPad4()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

DESCRIPTION

C# interface for safe code. Get BprRlyCtrl member's iPad4 value or error code. You must call ReadCfg() first. This function calls GetBprRlyCtrl() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsBprRlyCtrl or error if GetBprRlyCtrl() fails.

getBprRlyCtrl_iPad5

Windows Linux Mac

short getBprRlyCtrl_iPad5()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get BprRlyCtrl member's iPad5 value or error code. You must call ReadCfg() first. This function calls GetBprRlyCtrl() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsBprRlyCtrl or error if GetBprRlyCtrl() fails.

getBprRlyCtrl_iPad6

Windows Linux Mac

short getBprRlyCtrl_iPad6()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get BprRlyCtrl member's iPad6 value or error code. You must call ReadCfg() first. This function calls GetBprRlyCtrl() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsBprRlyCtrl or error if GetBprRlyCtrl() fails.

getBprRlyCtrl_iRelayState

Windows Linux Mac

short getBprRlyCtrl_iRelayState()

DESCRIPTION

C# interface for safe code. Get BprRlyCtrl member's iRelayState value or error code.
You must call ReadCfg() first. This function calls GetBprRlyCtrl() internally.
Note: 0 == Off, 1 == On.

PARAMETERS

None

RETURNS

short value from typedef struct tsBprRlyCtrl or error if GetBprRlyCtrl() fails.

SOFTWARE DEVELOPERS KIT API

getCfgFlags2_bBeepID

S O F T W A R E   D E V E L O P E R S   K I T   A P I

short getCfgFlags2_bBeepID()

DESCRIPTION

C# interface for safe code. Get CfgFlags2 member's bBeepID value or error code.
You must call ReadCfg() first. This function calls GetFlags2() internally.
Note: Beep when ID received.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags2 or error if GetFlags2() fails.

getCfgFlags2_bDspHex

Windows Linux Mac

short getCfgFlags2_bDspHex()

DESCRIPTION

C# interface for safe code. Get CfgFlags2 member's bDspHex value or error code.
You must call ReadCfg() first. This function calls GetFlags2() internally.
Note: Display ID as ASCII Hex [not ASCII decimal].

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags2 or error if GetFlags2() fails.

getCfgFlags2_bRevBytes

Windows Linux Mac

short getCfgFlags2_bRevBytes()

DESCRIPTION

C# interface for safe code. Get CfgFlags2 member's bRevBytes value or error code.
You must call ReadCfg() first. This function calls GetFlags2() internally.
Note: Reverse byte order (CSN reader).

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags2 or error if GetFlags2() fails.

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getCfgFlags2_bRevWiegBits

Windows Linux Mac

short getCfgFlags2_bRevWiegBits()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get CfgFlags2 member's bRevWiegBits value or error code.
You must call ReadCfg() first. This function calls GetFlags2() internally.
Note: Reverse the Wiegand Rx bits.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags2 or error if GetFlags2() fails.

getCfgFlags2_bUseInvDataF

Windows Linux Mac

short getCfgFlags2_bUseInvDataF()

DESCRIPTION

C# interface for safe code. Get CfgFlags2 member's bUseInvDataF value or error code.
You must call ReadCfg() first. This function calls GetFlags2() internally.
Note: Use the bWiegInvData flag over hardware setting.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags2 or error if GetFlags2() fails.

getCfgFlags2_bUseLeadChrs

Windows Linux Mac

short getCfgFlags2_bUseLeadChrs()

DESCRIPTION

C# interface for safe code. Get CfgFlags2 member's bUseLeadChrs value or error code.
You must call ReadCfg() first. This function calls GetFlags2() internally.
Note: Use leading chars in ID KB send.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags2 or error if GetFlags2() fails.

getCfgFlags2_bWiegInvData

Windows Linux Mac

short getCfgFlags2_bWiegInvData()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

DESCRIPTION

C# interface for safe code. Get CfgFlags2 member's bWiegInvData value or error code.
You must call ReadCfg() first. This function calls GetFlags2() internally.
Note: Wiegand data signals are typically active low.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags2 or error if GetFlags2() fails.

getCfgFlags2_isASCIIpresent

Windows Linux Mac

short getCfgFlags2_isASCIIpresent()

DESCRIPTION

C# interface for safe code. Get CfgFlags2 member's isASCIIpresent flag's value or error code.
You must call ReadCfg() first. This function calls GetFlags2() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags2 or error if GetFlags2() fails.

getCfgFlags3_bLowerCaseHex

Windows Linux Mac

short getCfgFlags3_bLowerCaseHex()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get CfgFlags3 member's bLowerCaseHex value or error.
code. You must call ReadCfg() first. This function calls GetFlags3() internally.
If the flag is set (non zero) then hex output will use lowercase a-z else
uppercase A-Z.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags3 or error if GetFlags3() fails.

getCfgFlags3_bNotBootDev

Windows Linux Mac

short getCfgFlags3_bNotBootDev()

DESCRIPTION

Deprecated function always returns Unsupported API return code.

PARAMETERS

None

RETURNS

Unsupported API return code.

getCfgFlags3_bPrxProEm

Windows Linux Mac

short getCfgFlags3_bPrxProEm()

DESCRIPTION

C# interface for safe code. Get CfgFlags3 member's bPrxProEm value or error code.
You must call ReadCfg() first. This function calls GetFlags3() internally.
Note: Use HID ProxPro card emulation. See HIDCORP.COM for details.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags3 or error if GetFlags3() fails.

SOFTWARE DEVELOPERS KIT API

getCfgFlags3_bSndSFFC

Windows Linux Mac

short getCfgFlags3_bSndSFFC()

DESCRIPTION

C# interface for safe code. Get CfgFlags3 member's bSndSFFC value or error code.
You must call ReadCfg() first. This function calls GetFlags3() internally.
Note: 0 = FAC Decimal, 1 = FAC Hex.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags3 or error if GetFlags3() fails.

getCfgFlags3_bSndSFID

Windows Linux Mac

short getCfgFlags3_bSndSFID()

DESCRIPTION

C# interface for safe code. Get CfgFlags3 member's bSndSFID value or error code.
You must call ReadCfg() first. This function calls GetFlags3() internally.
Note: 0 = ID Decimal, 1 = ID Hex.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags3 or error if GetFlags3() fails.

getCfgFlags3_bSndSFON

Windows Linux Mac

short getCfgFlags3_bSndSFON()

DESCRIPTION

C# interface for safe code. Get CfgFlags3 member's bSndSFON value or error code.
You must call ReadCfg() first. This function calls GetFlags3() internally.
Note: Split format ON = 1, old combined scheme = 0.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags3 or error if GetFlags3() fails.

SOFTWARE DEVELOPERS KIT API

getCfgFlags3_bUse64Bit

short getCfgFlags3_bUse64Bit()

DESCRIPTION

C# interface for safe code. Get CfgFlags3 member's bUse64Bit value or error code.
You must call ReadCfg() first. This function calls GetFlags3() internally.
It is recommended to leave this on.
Note: 0 = 32-bit, 1 = 64-bit Display Math.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags3 or error if GetFlags3() fails.

SOFTWARE DEVELOPERS KIT API

getCfgFlags3_bUseNumKP

Windows Linux Mac

short getCfgFlags3_bUseNumKP()

DESCRIPTION

C# interface for safe code. Get CfgFlags3 member's bUseNumKP value or error code.
You must call ReadCfg() first. This function calls GetFlags3() internally.
Note: Euro KB flag.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags3 or error if GetFlags3() fails.

getCfgFlags_bFixLenDsp

Windows Linux Mac

short getCfgFlags_bFixLenDsp()

DESCRIPTION

C# interface for safe code. Get CfgFlags member's bFixLenDsp value or error code.
You must call ReadCfg() first. This function calls GetFlags() internally.
Note: Send as fixed length with leading zeros as needed.

PARAMETERS

None

RETURNS

Short value from typedef struct tsCfgFlags or error if GetFlags() fails.

getCfgFlags_bFrcBitCntEx

Windows Linux Mac

short getCfgFlags_bFrcBitCntEx()

DESCRIPTION

C# interface for safe code. Get CfgFlags member's bFrcBitCntEx value or error code.
You must call ReadCfg() first. This function calls GetFlags() internally.
Note: Force Rx'd bit count to be exact to be valid.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags or error if GetFlags() fails.

SOFTWARE DEVELOPERS KIT API

getCfgFlags_bHaltKBSnd

Windows Linux Mac

short getCfgFlags_bHaltKBSnd()

DESCRIPTION

C# interface for safe code. Get CfgFlags member's bHaltKBSnd value or error code.
You must call ReadCfg() first. This function calls GetFlags() internally.
Note: Don't Send keys to USB (Get ID mechanism).

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags or error if GetFlags() fails.

SOFTWARE DEVELOPERS KIT API

getCfgFlags_bNoUseELChar

Windows Linux Mac

short getCfgFlags_bNoUseELChar()

DESCRIPTION

C# interface for safe code. Get CfgFlags member's bNoUseELChar value or error code.
You must call ReadCfg() first. This function calls GetFlags() internally.
Note: Don't use an EndLine char on send (default to ENTER).

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags or error if GetFlags() fails.

getCfgFlags_bSndFac

[Cached]

Windows Linux Mac

pcProx

short getCfgFlags_bSndFac()

DESCRIPTION

C# interface for safe code. Get CfgFlags member's bSndFac value or error code.
You must call ReadCfg() first. This function calls GetFlags() internally.
Note: Send the FAC (if stripped from data).

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags or error if GetFlags() fails.

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getCfgFlags_bSndOnRx

Windows Linux Mac

short getCfgFlags_bSndOnRx()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

DESCRIPTION

C# interface for safe code. Get CfgFlags member's bSndOnRx value or error code.
You must call ReadCfg() first. This function calls GetFlags() internally.
Note: Send valid ID as soon as it is received (iIDLockOutTm timer not used).

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags or error if GetFlags() fails.

getCfgFlags_bStripFac

short getCfgFlags_bStripFac()

DESCRIPTION

C# interface for safe code. Get CfgFlags member's bStripFac value or error code.
You must call ReadCfg() first. This function calls GetFlags() internally.
Note: Strip the FAC from the ID (not discarded).

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags or error if GetFlags() fails.

getCfgFlags_bUseDelFac2Id

short getCfgFlags_bUseDelFac2Id()

DESCRIPTION

C# interface for safe code. Get CfgFlags member's bUseDelFac2Id value or error code.
You must call ReadCfg() first. This function calls GetFlags() internally.
Note: Put a delimiter between FAC and ID on send.

PARAMETERS

None

RETURNS

short value from typedef struct tsCfgFlags or error if GetFlags() fails.

SOFTWARE DEVELOPERS KIT API

getDevName_char

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

char getDevName_char(short index)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

getDeviceName character by character. When the index is zero the device name is gathered from the device. The user may then read the rest of the buffered string character by character.

PARAMETERS

index value 0 through 126 inclusive.
if the index is out of range the value returned will be zero.

RETURNS

Returns the byte at buffer[index] from the GetDevName() function call.

getESN

Windows Linux Mac

const char* getESN()

S O F T W A R E D E V E L O P E R S K I T A P I

DESCRIPTION

Returns the 32 byte electronic serial number embedded in the processor chip.
Note: For Wren serial reader use GetSerialNumber() API to get ESN.

PARAMETERS

None

RETURNS

Returns the 32 byte ESN for loon USB readers and else return NULL.

SEE ALSO

GetSerialNumber()

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getIDBitCnts_iIDBitCnt

short getIDBitCnts_iIDBitCnt()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDBitCnts member's iIDBitCnt value or error code.
You must call ReadCfg() first. This function calls GetIDBitCnts() internally.
Note: If bStripFac, this determines bit count of ID and FAC.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDBitCnts or error if GetIDBitCnts() fails.

getIDBitCnts_iLeadParityBitCnt

short getIDBitCnts_iLeadParityBitCnt()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDBitCnts member's iLeadParityBitCnt
value or error code. You must call ReadCfg() first. This function
calls GetIDBitCnts() internally.
Note: Wiegand Leading Parity bit count to be stripped.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDBitCnts or error if
GetIDBitCnts() fails.

getIDBitCnts_iPad4

Windows Linux Mac

short getIDBitCnts_iPad4()

DESCRIPTION

C# interface for safe code. Get IDBitCnts member's iPad4 value or error code.
You must call ReadCfg() first. This function calls GetIDBitCnts() internally.
Names with iPad are padding values for the eight item structure, they are
available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDBitCnts or error if GetIDBitCnts() fails.

getIDBitCnts_iPad5

Windows Linux Mac

short getIDBitCnts_iPad5()

DESCRIPTION

C# interface for safe code. Get IDBitCnts member's iPad5 value or error code. You must call ReadCfg() first. This function calls GetIDBitCnts() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDBitCnts or error if GetIDBitCnts() fails.

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SOFTWARE DEVELOPERS KIT API

getIDBitCnts_iPad6

Windows Linux Mac

short getIDBitCnts_iPad6()

DESCRIPTION

C# interface for safe code. Get IDBitCnts member's iPad6 value or error code.
You must call ReadCfg() first. This function calls GetIDBitCnts() internally.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDBitCnts or error if GetIDBitCnts() fails.

getIDBitCnts_iPad7

short getIDBitCnts_iPad7()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDBitCnts member's iPad7 value or error code. You must call ReadCfg() first. This function calls GetIDBitCnts() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDBitCnts or error if GetIDBitCnts() fails.

getIDBitCnts_iTotalBitCnt

Windows Linux Mac

short getIDBitCnts_iTotalBitCnt()

DESCRIPTION

C# interface for safe code. Get IDBitCnts member's iTotalBitCnt value or error code.
You must call ReadCfg() first. This function calls GetIDBitCnts() internally.
Note: If bFrcBitCntEx, card read (including parity) must match this.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDBitCnts or error if GetIDBitCnts() fails.

SOFTWARE DEVELOPERS KIT API

getIDBitCnts_iTrailParityBitCnt

Windows Linux Mac

short getIDBitCnts_iTrailParityBitCnt()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

DESCRIPTION

C# interface for safe code. Get IDBitCnts member's iTrailParityBitCnt value or error code. You must call ReadCfg() first. This calls GetIDBitCnts() internally. Note: Wiegand Trailing Parity bit count to be stripped.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDBitCnts or error if GetIDBitCnts() fails.

getIDDispParms2_iCrdGnChr0

short getIDDispParms2_iCrdGnChr0()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDDispParms2 member's iCrdGnChr0 value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms2() internally.
Note: If non-zero, sent when ID goes Invalid on RS-232 readers..

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms2 or error if GetIDDispParms2() fails.

getIDDispParms2_iCrdGnChr1

Windows Linux Mac

short getIDDispParms2_iCrdGnChr1()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDDispParms2 member's iCrdGnChr1 value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms2() internally.
Note: If this and Chr0 non-zero, sent when ID goes Invalid on RS-232 readers.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms2 or error if GetIDDispParms2() fails.

getIDDispParms2_iLeadChr0

Windows Linux Mac

short getIDDispParms2_iLeadChr0()

DESCRIPTION

C# interface for safe code. Get IDDispParms2 member's iLeadChr0 value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms2() internally.
Note: These lead characters are filled in (up to 3).

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms2 or error if GetIDDispParms2() fails.

SOFTWARE DEVELOPERS KIT API

getIDDispParms2_iLeadChr1

Windows Linux Mac

short getIDDispParms2_iLeadChr1()

DESCRIPTION

C# interface for safe code. Get IDDispParms2 member's iLeadChr1 value or error code. You must call ReadCfg() first. This function calls GetIDDispParms2() internally.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms2 or error if GetIDDispParms2() fails.

SOFTWARE DEVELOPERS KIT API

getIDDispParms2_iLeadChr2

Windows Linux Mac

short getIDDispParms2_iLeadChr2()

DESCRIPTION

C# interface for safe code. Get IDDispParms2 member's iLeadChr2 value or error code. You must call ReadCfg() first. This function calls GetIDDispParms2() internally.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms2 or error if GetIDDispParms2() fails.

getIDDispParms2_iLeadChrCnt

Windows Linux Mac

short getIDDispParms2_iLeadChrCnt()

DESCRIPTION

C# interface for safe code. Get IDDispParms2 member's iLeadChrCnt value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms2() internally.
Note: If bUseLeadChrs, this contains the lead char count (<=3).

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms2 or error if GetIDDispParms2() fails.

SOFTWARE DEVELOPERS KIT API

getIDDispParms2_iPad6

Windows Linux Mac

short getIDDispParms2_iPad6()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDDispParms2 member's iPad6 value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms2() internally.
Names with iPad are padding values for the eight item structure, they are
available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms2 or error if GetIDDispParms2() fails.

getIDDispParms2_iPad7

Windows Linux Mac

short getIDDispParms2_iPad7()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDDispParms2 member's iPad7 value or error code. You must call ReadCfg() first. This function calls GetIDDispParms2() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms2 or error if GetIDDispParms2() fails.

getIDDispParms3_iPad4

short getIDDispParms3_iPad4()

DESCRIPTION

C# interface for safe code. Get IDDispParms3 member's iPad4 value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms3() internally.
Names with iPad are padding values for the eight item structure, they are
available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms3 or error if GetIDDispParms3() fails.

SOFTWARE DEVELOPERS KIT API

getIDDispParms3_iPad5

Windows Linux Mac

short getIDDispParms3_iPad5()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDDispParms3 member's iPad5 value or error code. You must call ReadCfg() first. This function calls GetIDDispParms3() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms3 or error if GetIDDispParms3() fails.

getIDDispParms3_iPad6

Windows Linux Mac   **pcProx**

short getIDDispParms3_iPad6()

DESCRIPTION

C# interface for safe code. Get IDDispParms3 member's iPad6 value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms3() internally.
Names with iPad are padding values for the eight item structure, they are
available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms3 or error if GetIDDispParms3() fails.

SOFTWARE DEVELOPERS KIT API

getIDDispParms3_iPad7

Windows Linux Mac

short getIDDispParms3_iPad7()

DESCRIPTION

C# interface for safe code. Get IDDispParms3 member's iPad7 value or error code. You must call ReadCfg() first. This function calls GetIDDispParms3() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms3 or error if GetIDDispParms3() fails.

getIDDispParms3_iTrailChr0

Windows Linux Mac

short getIDDispParms3_iTrailChr0()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDDispParms3 member's iTrailChr0 value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms3() internally.
Note: These trailing characters are filled in (up to 3).

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms3 or error if GetIDDispParms3() fails.

getIDDispParms3_iTrailChr1

Windows Linux Mac

short getIDDispParms3_iTrailChr1()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDDispParms3 member's iTrailChr1 value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms3() internally.
Note: LeadChrCnt + TrailCheCnt <= 3.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms3 or error if GetIDDispParms3() fails.

getIDDispParms3_iTrailChr2

short getIDDispParms3_iTrailChr2()

DESCRIPTION

C# interface for safe code. Get IDDispParms3 member's iTrailChr2 value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms3() internally.
Note: LeadChrs have priority.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms3 or error if GetIDDispParms3() fails.

S O F T W A R E   D E V E L O P E R S   K I T   A P I

getIDDispParms3_iTrailChrCnt

Windows Linux Mac

short getIDDispParms3_iTrailChrCnt()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDDispParms3 member's iTrailChrCnt value or error code. You must call ReadCfg() first. This function calls GetIDDispParms3() internally. Note: This contains the trail char count (<=3).

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms3 or error if GetIDDispParms3() fails.

getIDDispParms_iELDelim

Windows Linux Mac

short getIDDispParms_iELDelim()

DESCRIPTION

C# interface for safe code. Get IDDispParms member's iELDelim value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms() internally.
Note: If NOT bNoUseELChar, this character sent at end of ID.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms or error if GetIDDispParms() fails.

SOFTWARE DEVELOPERS KIT API

getIDDispParms_iExOutputFormat

short getIDDispParms_iExOutputFormat()

DESCRIPTION

C# interface for safe code. Get IDDispParms member's iExOutputFormat value.
You must call ReadCfg() first. This function calls GetIDDispParms() internally.
Note : If iExOutputFormat, Reader will output in Extended mode. It is applicable
only for Plus Extended readers because these readers have capability to give
output in both Conventional and Extended mode.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms or error if GetIDDispParms() fails.

getIDDispParms_iFACDispLen

Windows Linux Mac

short getIDDispParms_iFACDispLen()

DESCRIPTION

C# interface for safe code. Get IDDispParms member's iFACDispLen value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms() internally.
Note: If bFixLenDsp, FAC padded with zeros to this length.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms or error if GetIDDispParms() fails.

getIDDispParms_iFACIDDelim

short getIDDispParms_iFACIDDelim()

DESCRIPTION

C# interface for safe code. Get IDDispParms member's iFACIDDelim value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms() internally.
Note: If bStripFac and bSndFac and bUseDelFac2Id, this character is
sent between FAC and ID.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms or error if GetIDDispParms() fails.

SOFTWARE DEVELOPERS KIT API

getIDDispParms_iIDDispLen

Windows Linux Mac

short getIDDispParms_iIDDispLen()

DESCRIPTION

C# interface for safe code. Get IDDispParms member's iIDDispLen value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms() internally.
Note: If bFixLenDsp, ID padded with zeros to this length.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms or error if GetIDDispParms() fails.

getIDDispParms_iPad5

Windows Linux Mac

short getIDDispParms_iPad5()

DESCRIPTION

C# interface for safe code. Get IDDispParms member's iPad5 value or error code. You must call ReadCfg() first. This function calls GetIDDispParms() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms or error if GetIDDispParms() fails.

SOFTWARE DEVELOPERS KIT API

getIDDispParms_iPad6

Windows Linux Mac

short getIDDispParms_iPad6()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDDispParms member's iPad6 value or error code.
You must call ReadCfg() first. This function calls GetIDDispParms() internally.
Names with iPad are padding values for the eight item structure, they are
available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms or error if GetIDDispParms() fails.

getIDDispParms_iPad7

short getIDDispParms_iPad7()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get IDDispParms member's iPad7 value or error code. You must call ReadCfg() first. This function calls GetIDDispParms() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsIDDispParms or error if GetIDDispParms() fails.

getLEDCtrl_bAppCtrlsLED

Windows Linux Mac

short getLEDCtrl_bAppCtrlsLED()

DESCRIPTION

C# interface for safe code. Get LEDCtrl member's bAppCtrlsLED value or error code
You must call ReadCfg() first. This function calls GetLEDCtrl() internally.
Note: Display LEDs are controlled by user thru this library.

PARAMETERS

None

RETURNS

short value from typedef struct tsLEDCtrl or error if GetLEDCtrl() fails.

SOFTWARE DEVELOPERS KIT API

getLEDCtrl_bVolatile

Windows Linux Mac

pcProx pcSwipe pcProx Sonar

short getLEDCtrl_bVolatile()

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DESCRIPTION

C# interface for safe code. Get LEDCtrl member's bVolatile value or error code.
You must call ReadCfg() first. This function calls GetLEDCtrl() internally.
Note: 0 == commit to EE, 1 == Don't store to EE.

PARAMETERS

None

RETURNS

short value from typedef struct tsLEDCtrl or error if GetLEDCtrl() fails.

getLEDCtrl_iGrnLEDState

short getLEDCtrl_iGrnLEDState()

DESCRIPTION

C# interface for safe code. Get LEDCtrl member's iGrnLEDState value or error code.
You must call ReadCfg() first. This function calls GetLEDCtrl() internally.
Note: 0 == Off, 1 == On.

PARAMETERS

None

RETURNS

short value from typedef struct tsLEDCtrl or error if GetLEDCtrl() fails.

SOFTWARE DEVELOPERS KIT API

getLEDCtrl_iPad3

[Cached]

Windows Linux Mac

pcProx

short getLEDCtrl_iPad3()

DESCRIPTION

C# interface for safe code. Get LEDCtrl member's iPad3 value or error code. You must call ReadCfg() first. This function calls GetLEDCtrl() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsLEDCtrl or error if GetLEDCtrl() fails.

SOFTWARE DEVELOPERS KIT API

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getLEDCtrl_iPad4

Windows Linux Mac

short getLEDCtrl_iPad4()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get LEDCtrl member's iPad4 value or error code. You must call ReadCfg() first. This function calls GetLEDCtrl() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsLEDCtrl or error if GetLEDCtrl() fails.

getLEDCtrl_iPad5

Windows Linux Mac

short getLEDCtrl_iPad5()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get LEDCtrl member's iPad5 value or error code. You must call ReadCfg() first. This function calls GetLEDCtrl() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsLEDCtrl or error if GetLEDCtrl() fails.

getLEDCtrl_iPad6

Windows Linux Mac

short getLEDCtrl_iPad6()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get LEDCtrl member's iPad6 value or error code. You must call ReadCfg() first. This function calls GetLEDCtrl() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsLEDCtrl or error if GetLEDCtrl() fails.

getLEDCtrl_iRedLEDState

pcProx pcSwipe pcProx Sonar

short getLEDCtrl_iRedLEDState()

DESCRIPTION

C# interface for safe code. Get LEDCtrl member's iRedLEDState value or error code.
You must call ReadCfg() first. This function calls GetLEDCtrl() internally.
Note: 0 == Off, 1 == On.

PARAMETERS

None

RETURNS

short value from typedef struct tsLEDCtrl or error if GetLEDCtrl() fails.

getLibraryVersion_Beta

[Cached]

Windows Linux Mac

pcProx

const char * getLibraryVersion_Beta(void)

DESCRIPTION

Read the SDK beta version. This is a 8 (MAXBETASZ) character string such as "Beta".

PARAMETERS

None

RETURNS

Returns the pointer to a static buffer within the Library or null.

SOFTWARE DEVELOPERS KIT API

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getLibraryVersion_Build

Windows Linux Mac

short getLibraryVersion_Build(void)

DESCRIPTION

Get the version of the library code.
This function returns the build version with the use of pointers.

PARAMETERS

None

RETURNS

Returns build version.

EXAMPLE

short Build = getLibraryVersion_Build()

SEE ALSO

getLibraryVersion_Major()
getLibraryVersion_Minor()
GetLibVersion()

SOFTWARE DEVELOPERS KIT API

getLibraryVersion_Major

Windows Linux Mac

short getLibraryVersion_Major(void)

DESCRIPTION

Get the version of the library code.
This function returns the major version without the use of pointers.

PARAMETERS

None

RETURNS

Returns major version

EXAMPLE

short Major = getLibraryVersion_Major()

SEE ALSO

getLibraryVersion_Minor()
getLibraryVersion_Build()
GetLibVersion()

getLibraryVersion_Minor

Windows Linux Mac

short getLibraryVersion_Minor(void)

DESCRIPTION

Get the version of the library code.
This function returns the minor version with the use of pointers.

PARAMETERS

None

RETURNS

Returns minor version.

EXAMPLE

short Minor = getLibraryVersion_Minor()

SEE ALSO

getLibraryVersion_Major()
getLibraryVersion_Build()
GetLibVersion()

getPartNumberString

[Cached]

pcProx pcSwipe pcProx Sonar

SOFTWARE DEVELOPERS KIT API

const char * getPartNumberString(void)

DESCRIPTION

Read the device part number string. This is a 24 (MAXPRODUCTNAMESZ) character string such as "MS3-00M1AKU" and null terminated.

PARAMETERS

None

RETURNS

Returns the pointer to a static buffer within the Library or null.

SEE ALSO

getPartNumberString_char()

                                 www.rfIDEAS.com

[Cached]

getPartNumberString_char

S O F T W A R E   D E V E L O P E R S   K I T   A P I

char   getPartNumberString_char(short index)

DESCRIPTION

Read the device part number string character by character. This is a 24 (MAXPRODUCTNAMESZ) character string such as "MS0-00M1AKU" and null terminated if less then 24 characters are used. When the index is zero, the serial number is received from the device and buffered by the library. The caller can then get the remainder of the string. Therefore the first call must be with index = 0.

PARAMETERS

index 0 through 23 inclusive.

RETURNS

Returns the character of index position of the part number string.

SEE ALSO

getPartNumberString()

getTimeParms_ExFeatures01

Windows Linux Mac

short getTimeParms_ExFeatures01(void)

DESCRIPTION

C# interface for safe code. Get TimeParms member's iPad5 value or error code.
You must call ReadCfg() first. This function calls GetTimeParms() internally.
Names with iPad are padding values for the eight item structure, they are
available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsTimeParms or error if GetTimeParms() fails.

SOFTWARE DEVELOPERS KIT API

getTimeParms_iBitStrmTO

short getTimeParms_iBitStrmTO()

DESCRIPTION

C# interface for safe code. Get TimeParms member's iBitStrmTO value or error code.
You must call ReadCfg() first. This function calls GetTimeParms() internally.
Note: Wiegand read times out after this msec time (48msec granularity).

PARAMETERS

None

RETURNS

short value from typedef struct tsTimeParms or error if GetTimeParms() fails.

S O F T W A R E   D E V E L O P E R S   K I T   A P I

getTimeParms_iIDHoldTO

short getTimeParms_iIDHoldTO()

DESCRIPTION

C# interface for safe code. Get TimeParms member's iIDHoldTO value or error code.
You must call ReadCfg() first. This function calls GetTimeParms() internally.
Note: Card ID remains valid for this msec time (48msec granularity).

PARAMETERS

None

RETURNS

short value from typedef struct tsTimeParms or error if GetTimeParms() fails.

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getTimeParms_iIDLockOutTm

Windows Linux Mac

short getTimeParms_iIDLockOutTm()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

DESCRIPTION

C# interface for safe code. Get TimeParms member's iIDLockOutTm value or error code. You must call ReadCfg() first. This function calls GetTimeParms() internally.
Note: Squelch repetitive reader reports (usually > 1000) in msec (48msec granularity).

PARAMETERS

None

RETURNS

short value from typedef struct tsTimeParms or error if GetTimeParms() fails.

getTimeParms_iPad6

Windows Linux Mac

short getTimeParms_iPad6()

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Get TimeParms member's iPad6 value or error code. You must call ReadCfg() first. This function calls GetTimeParms() internally. Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

None

RETURNS

short value from typedef struct tsTimeParms or error if GetTimeParms() fails.

getTimeParms_iTPCfgFlg3

short getTimeParms_iTPCfgFlg3()

DESCRIPTION

C# interface for safe code. Get TimeParms member's iTPCfgFlg3 value or error code.
You must call ReadCfg() first. This function calls GetTimeParms() internally.
Note: It is recommended to use the Flags3 structure and not the bits in this byte.
Further Flags not related to Time at all (see tsCfgFlags3).

PARAMETERS

None

RETURNS

short value from typedef struct tsTimeParms or error if GetTimeParms() fails.

getTimeParms_iUSBKeyPrsTm

short getTimeParms_iUSBKeyPrsTm()

DESCRIPTION

C# interface for safe code. Get TimeParms member's iUSBKeyPrsTm value or error code.
You must call ReadCfg() first. This function calls GetTimeParms() internally.
Note: Set USB inter-key 'Press' time in msecs (4msec granularity).

PARAMETERS

None

RETURNS

short value from typedef struct tsTimeParms or error if GetTimeParms() fails.

getTimeParms_iUSBKeyRlsTm

Windows Linux Mac

short getTimeParms_iUSBKeyRlsTm()

DESCRIPTION

C# interface for safe code. Get TimeParms member's iUSBKeyRlsTm value or error code.
You must call ReadCfg() first. This function calls GetTimeParms() internally.
Note: Set USB inter-key 'Release' time in msecs (4msec granularity).

PARAMETERS

None

RETURNS

short value from typedef struct tsTimeParms or error if GetTimeParms() fails.

SOFTWARE DEVELOPERS KIT API

getVidPidVendorName_char

Windows Linux Mac

char getVidPidVendorName_char(short index)

DESCRIPTION

Return the VendorName string for the active device. This comes from the optional pcProxVidPid.txt file.
is gathered from the device. The user may then read the rest of the buffered string character by character.

PARAMETERS

index value 0 through 31 inclusive.
if the index is out of range the value returned will be zero.

RETURNS

Returns the character at buffer[index] from the GetVidPidVendorName() function call.

SEE ALSO

GetVidPidVendorName()

pcProxPlusDefaults

Windows Linux Mac

BOOL pcProxPlusDefaults(void)

S O F T W A R E   D E V E L O P E R S   K I T   A P I

DESCRIPTION

Reset pcProx Plus to defaults. This copies the Default settings configurations to the Active settings configurations and Stored Settings. You will need to call ReadCfg() to get the changed settings into your application.

PARAMETERS

None

RETURNS

TRUE success / FALSE Fail

SEE ALSO

ResetUserDflts()

pcSwipeClearDataAvailable

Windows Linux Mac

S O F T W A R E   D E V E L O P E R S   K I T   A P I

BSHRT pcSwipeClearDataAvailable(void)

DESCRIPTION

Clear Data available flag. This clears the data available flag
and allows the reader to read cards without waiting for the ten
second timeout.
Note:
The user must call ClearDataAvailable after getting the track
data with GetTrackData(). Once GetTrackData is called you have
ten seconds to safely retrieve the next tracks of data without risking
another card swipe overwriting this data.
The card reader is locked out from reading cards after the first call to
pcSwipeGetTrackData() until you call ClearDataAvailable() or ten seconds
which ever occurs first.
After pcSwipeClearDataAvailable() is called the unit will return to the ready
state and the LED will return to the ready state color.

PARAMETERS

None

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

pcSwipeIsDataAvailable()

pcSwipeGetBeeper

Windows Linux Mac

WORD pcSwipeGetBeeper(WORD i)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

Get the beeper count for one of the 3 states.
SEE PCSWIPE_STATE_*

PARAMETERS

state see #define PCSWIPE_STATE_

RETURNS

0..N for short beeps bit 7 set for long beeps
0,1,2,3,4,80,0x81,0x82

SEE ALSO

pcSwipeSetBeeper()
BeepNow()

www.rfIDEAS.com

pcSwipeGetFieldEnable

Windows Linux Mac

BSHRT pcSwipeGetFieldEnable(WORD field)

DESCRIPTION

Return the state of the the users field enabled TRUE or disabled FALSE.

PARAMETERS

user field number 1..11.

RETURNS

TRUE = Success / FALSE = Failure.

SEE ALSO

WriteCfg()
pcSwipeSetFieldEnable()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

pcSwipeGetFieldIgnoreLRC

Windows Linux Mac

BSHRT pcSwipeGetFieldIgnoreLRC(WORD field)

DESCRIPTION

Get the state of Ignore LRC flag for a given user field.

PARAMETERS

user field number 1..11

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

pcSwipeSetFieldIgnoreLRC()

SOFTWARE DEVELOPERS KIT API

pcSwipeGetFieldKeyCount

Windows Linux Mac

S O F T W A R E   D E V E L O P E R S   K I T   A P I

BSHRT pcSwipeGetFieldKeyCount(WORD field)

DESCRIPTION

Get the number of keystrokes for a given user field.

PARAMETERS

field number 1..N.

RETURNS

Key count 0..8 (16)

SEE ALSO

pcSwipeGetFieldKeydata()
pcSwipeSetFieldKeyCount()

pcSwipeGetFieldKeydata

Windows Linux Mac

WORD pcSwipeGetFieldKeydata(WORD field, BSHRT kindex)

DESCRIPTION

Get the keystroke data for a given field. In USB HID keyboard emulation each key is 2 bytes the code and shift modifiers. Even key index bytes are the scan code and odd key index bytes are the shift modifiers. For ASCII devices, each index represents one key and there are twice as many characters available since each key is one byte.

PARAMETERS

field number 1..N, key index, value.

RETURNS

return value of key.

SEE ALSO

pcSwipeSetFieldKeydata()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

pcSwipeGetFieldLength

Windows Linux Mac

WORD pcSwipeGetFieldLength(WORD field)

DESCRIPTION

Get the user field length in keystrokes or (serial) characters.

PARAMETERS

field number 1..N

RETURNS

length 0..N

SEE ALSO

pcSwipeSetFieldLength()

SOFTWARE DEVELOPERS KIT API

pcSwipeGetFieldMagField

Windows Linux Mac

BSHRT pcSwipeGetFieldMagField(WORD field)

DESCRIPTION

Get the mag field of the card data for a given user track.

PARAMETERS

user field number 1..11

RETURNS

field within card data

SEE ALSO

pcSwipeSetFieldMagField()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

pcSwipeGetFieldOffset

Windows Linux Mac

WORD pcSwipeGetFieldOffset(WORD field)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

Get the field offset in characters on where to start keystroking out data.

PARAMETERS

user field number 1..11

RETURNS

offset in characters 0..N

SEE ALSO

pcSwipeSetFieldOffset()

pcSwipeGetFieldShowLRC

SOFTWARE DEVELOPERS KIT API

BSHRT pcSwipeGetFieldShowLRC(WORD field)

DESCRIPTION

Get the state of the field Show LRC flag.

PARAMETERS

user field number 1..11

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

WriteCfg()
pcSwipeSetFieldShowLRC()

pcSwipeGetFieldShowSepSen

Windows Linux Mac

BSHRT pcSwipeGetFieldShowSepSen(WORD field)

DESCRIPTION

Get the field Show Separators and Sentinels state.
When set the mag data separators and sentinels are keystroked out.
On a typical ISO standard mag card will have one start one end
sentinel and zero or more field separators. When a track has
one field no FS will be present.

PARAMETERS

user field number 1..11, TRUE | FALSE

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

WriteCfg()
pcSwipeSetFieldShowSepSen()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

pcSwipeGetFieldSkip

Windows Linux Mac

BSHRT pcSwipeGetFieldSkip(WORD field)

S O F T W A R E   D E V E L O P E R S   K I T   A P I

DESCRIPTION

Get the field skip state.
Tracks 1,2,3 use user fields 9,10, and 11 respectively.

PARAMETERS

user field number 1..11

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

WriteCfg()
pcSwipeSetFieldSkip()

pcSwipeGetFieldTerm

Windows Linux Mac

WORD pcSwipeGetFieldTerm(WORD field)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

Get the field termination character. The keystroked output will terminate when the length is exceeded or term char is found.

PARAMETERS

field number 1..N.

RETURNS

byte 0..255

SEE ALSO

pcSwipeSetFieldTerm()

pcSwipeGetFieldTrack

Windows Linux Mac

WORD pcSwipeGetFieldTrack(WORD field)

DESCRIPTION

Get track number for a given user field.

PARAMETERS

user field number 1..11

RETURNS

track number 1..7

SEE ALSO

WriteCfg()
pcSwipeGetFieldIgnoreLRC()

pcSwipeGetLED

Windows Linux Mac

WORD pcSwipeGetLED(WORD i)

DESCRIPTION

Get the LED color for one of the 3 states.
SEE LED_STATE_* #defines and LED_COLORS

PARAMETERS

state see #define LED_STATE_

RETURNS

#define one of LED_COLOR_

SOFTWARE DEVELOPERS KIT API

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pcSwipeGetSystemCardsRead

DWORD pcSwipeGetSystemCardsRead(void)

DESCRIPTION

This returns the number of cards read minus one for diagnostic purposes.
This is the 32 bit number of cards read less one since the units
manufacture date. When the unit is manufactured the count is set to
0xFFFFFFFF (4,294,967,295). There is no way to clear the data. The data has
no checksum and is never reset to zero. This counter will roll over!

PARAMETERS

None

RETURNS

DWORD 0..4,294,967,295

SOFTWARE DEVELOPERS KIT API

pcSwipeGetSystemInternalCount

long pcSwipeGetSystemInternalCount(int index)

S O F T W A R E   D E V E L O P E R S   K I T   A P I

DESCRIPTION

This returns internal pcSwipe diagnostic counters. An index of 0 returns the number of watchdog resets. An index of 1 returns the number of stack underflows. An index of 2 returns the number of stack overflows. An index of 3 returns the number of times the unit self-corrected its flash memory. If power is removed during flash writes the flash memory checksum is not updated, the next power-up will detect an invalid checksum and self-correct to factory defaults.

PARAMETERS

None

RETURNS

DWORD 0..4,294,967,295

pcSwipeGetSystemUptime

Windows Linux Mac

DWORD pcSwipeGetSystemUptime(void)

S O F T W A R E   D E V E L O P E R S   K I T   A P I

DESCRIPTION

Return system "Up Time" in 4msec ticks. This counts from 1 thru 4,294,967,295 (or about 196-200 days) until the counter rolls over to zero.
Note:
The accuracy of the system uptime is about 1% so this should not
be used for long term accuracy. It can be used to determine how long the
reader has been up since reset.

PARAMETERS

None

RETURNS

DWORD 0x00000000 thru 0xFFFFFFFF

 www.rfIDEAS.com

pcSwipeGetTrackData

Windows Linux Mac

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const char * pcSwipeGetTrackData(WORD track, BSHRT toAscii)

DESCRIPTION

Get the data from the track. All data is returned including field
separators and sentinels and the LRC.
The data format is:
ERR:COUNT START SENTINEL [[optional data [FIELDSEP]] ENDSENTINEL LRC
Byte[0] = Bit 7 = Set For LRC Error, Bits 0 thru 6 are the character count.
For a track to be valid there must be a start sentinel and end sentinel;
the data is optional and so is the field separator. The LRC is an XOR
of all data excluding parity inclusively from SS to ES. The LRC does not
have parity.
The data can optionally be converted to ASCII so that it is easier to
display. The LRC will also be converted to ASCII.
The first call will put the unit in the 'sending data' state and the
LED color will be set as the user defined color for that state.
After pcSwipeClearDataAvailable() is called the unit will return to the 'ready state'
and the LED will return to the 'ready state' color.

PARAMETERS

Track 1,2,3

RETURNS

BYTE * to 256 bytes. Buffer of nulls returned on any error.

SEE ALSO

pcSwipeClearDataAvailable()
pcSwipeIsDataAvailable()
GetActiveID()
pcSwipeSetActiveID()

pcSwipeGetTrackData_BYTE

Windows Linux Mac

pcSwipe

BYTE pcSwipeGetTrackData_BYTE(WORD track, BSHRT toAscii, WORD index)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

Get the data from the track on byte at a time. All data is returned including
field separators and sentinels and the LRC.
The data format is:
ERR:COUNT START SENTINEL [[optional data [FIELDSEP]] ENDSENTINEL LRC
Byte[0] = Bit 7 = Set For LRC Error, Bits 0 thru 6 are the character count.
For a track to be valid there must be a start sentinel and end sentinel;
the data is optional and so is the field separator. The LRC is an XOR
of all data excluding parity inclusively from SS to ES. The LRC has
its own parity bit.
The data can optionally be converted to ASCII so that it is easier to
display.

PARAMETERS

Track 1,2,3, convert to ascii else leave as raw, index for byte 0..255

RETURNS

BYTE * to 256 bytes. Buffer of nulls returned on any error.

SEE ALSO

pcSwipeGetTrackData()

pcSwipeGetTrackEnables

Windows Linux Mac

WORD pcSwipeGetTrackEnables(void)

DESCRIPTION

Get which tracks are enabled and will be key stroked out. It is possible
to enable none of the tracks, you will not see any keystroke data if no
track is enabled. The good LED and good beep are based on the enabled tracks.

PARAMETERS

None

RETURNS

Flags with bits 0,1,3 set for enabled tracks.

SEE ALSO

pcSwipeSetTrackEnables()

SOFTWARE DEVELOPERS KIT API

pcSwipeGetTrackFieldOffset

Windows Linux Mac

```
const char * pcSwipeGetTrackFieldOffset(WORD track,
                         WORD magField,
                         WORD offset,
                         WORD len,
                         WORD term,
                         BSHRT toAscii)
```

DESCRIPTION

This calls GetTrackData() and parses the desired field and offset up to the
the length or termination byte. If the field can not be found then the
beginning of the track is returned.

PARAMETERS

Track 1,2,3, field number 1..N, offset in bytes to skip after
finding the field, the length in bytes to return unless the
termination byte is found first. ToAscii flag can be set to return
data in ASCII format.

RETURNS

BYTE * up to 256 bytes. Buffer of nulls returned on any error.

SEE ALSO

pcSwipeGetTrackData()

pcSwipeIsDataAvailable

Windows Linux Mac

WORD pcSwipeIsDataAvailable(void)

DESCRIPTION

Check if data is available on any track. If non zero then GetActiveID
or GetTrackData() may be called. The value returned has bit 0 through 3
set for data available on tracks 1 through 3 respectively.
If a card is read while data is available but before GetTrack is
called then the device's overrun counter is incremented.
The call must call ClearDataAvailable after getting the track
data with GetTrackData(). Once GetTrackData is called you have
ten seconds to retrieve the next tracks of data and call ClearDataAvailable().
Note:
The card reader is locked out reading after the first call to GetTrackData()
when you call ClearDataAvailable() or ten seconds which ever occurs first.

PARAMETERS

None

RETURNS

0 = No Card Data Available.
1 = Track 1 has data
2 = Track 2 has data
3 = Tracks 1 & 2 have data
4 = Track 3 has data
5 = Tracks 1 & 3 have data
6 = Tracks 2 & 3 have data
7 = Tracks 1,2 and 3 have data

SEE ALSO

pcSwipeClearDataAvailable()

pcSwipeSetActiveID

`Windows Linux Mac`

SOFTWARE DEVELOPERS KIT API

BSHRT pcSwipeSetActiveID(WORD track,
                WORD magField,
                WORD offset,
                WORD term)

DESCRIPTION

Set the area of the magstripe card that GetActiveID should return. This makes the pcSwipe backwards compatible with the pcProx API function Call GetActiveID() / GetActiveID32(). It is recommended to use pcSwipeGetTrackData_BYTE() for newer projects, since GetActiveID and GetActiveID32 are limited to 8 and 32 bytes.

PARAMETERS

Track 1,2 or 3, field number, offset within field.

RETURNS

TRUE = Success / FALSE = Failure.

SEE ALSO

GetActiveID()
GetActiveID32()
pcSwipeIsDataAvailable()
pcSwipeGetTrackData_BYTE()

pcSwipeSetBeeper

Windows Linux Mac

BSHRT pcSwipeSetBeeper(WORD i, WORD count, BSHRT longBeep)

DESCRIPTION

Set the beeper length/count color for one of the 2 states,
PCSWIPE_STATE_GOOD, PCSWIPE_STATE_BAD.
SEE BEEPER_STATE_*
WriteCfg must be called to change the
LED color on the device.

PARAMETERS

Set value = BEEPER_STATE, count, long beep flag

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

pcSwipeGetBeeper()
BeepNow()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

pcSwipeSetFieldEnable

Windows Linux Mac

BSHRT pcSwipeSetFieldEnable(WORD field, WORD enable)

DESCRIPTION

Enable the user field of the active device. Enable fields will keystroke out delimiter data, disabled fields will not.

PARAMETERS

user field number 1..11, TRUE | FALSE

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

WriteCfg()
pcSwipeGetFieldEnable()

pcSwipeSetFieldIgnoreLRC

Windows Linux Mac

S O F T W A R E   D E V E L O P E R S   K I T   A P I

BSHRT pcSwipeSetFieldIgnoreLRC(WORD field, BSHRT enable)

DESCRIPTION

Set the state of the fields ignore LRC flag. When set the LRC
is not checked for accuracy and the track data will be used even
if the LRC is incorrect. If not set the LRC will be checked
and fields 8 will be used for track 1 errors and field 9
for track 2, and field 10 for track 3 errors.

PARAMETERS

user field number 1..11, TRUE | FALSE

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

WriteCfg()
pcSwipeGetFieldIgnoreLRC()

pcSwipeSetFieldKeyCount

Windows Linux Mac

BSHRT pcSwipeSetFieldKeyCount(WORD field, BYTE nKeys)

DESCRIPTION

Set the number of keystrokes for a given user field.

PARAMETERS

field number 1..N, key count 0..8 USB (0..16 Serial)

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

pcSwipeGetFieldKeydata()

pcSwipeSetFieldKeydata

Windows Linux Mac   pcSwipe

BSHRT pcSwipeSetFieldKeydata(WORD field, BSHRT kindex, BSHRT value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

Set the keystroke data for a given field. In USB HID keyboard emulation each key is 2 bytes the code and shift modifiers. Even key index bytes are the scan code and odd key index bytes are the shift modifiers. For ASCII devices, each index represents one key and there are twice as many characters available since each key is one byte.

PARAMETERS

field number 1..N, key index, value.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

pcSwipeGetFieldKeydata()

pcSwipeSetFieldLength

BSHRT pcSwipeSetFieldLength(WORD field, WORD length)

DESCRIPTION

Set the field length of how many characters will be keystroked out or until termination byte/character is found.

PARAMETERS

user field number 1..11, length 0..N

RETURNS

offset in characters 0..N

SEE ALSO

pcSwipeGetFieldLength()

pcSwipeSetFieldMagField

Windows Linux Mac

BSHRT pcSwipeSetFieldMagField(WORD field, BSHRT fieldNo)

DESCRIPTION

Set (select) the field with the track number for a given (user) field.

PARAMETERS

user field number 1..11, field number as define by FS's on mag track.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

pcSwipeGetFieldMagField()

SOFTWARE DEVELOPERS KIT API

pcSwipeSetFieldOffset

Windows Linux Mac

BSHRT pcSwipeSetFieldOffset(WORD field, WORD byteOfs)

DESCRIPTION

Set the field offset in characters on where to start keystroking out data.

PARAMETERS

user field number 1..11

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

pcSwipeGetFieldOffset()

pcSwipeSetFieldShowLRC

Windows Linux Mac

BSHRT pcSwipeSetFieldShowLRC(WORD field, BSHRT enable)

DESCRIPTION

Set the field Show LRC, when set the LRC (Logical Redundancy Check)
byte will be show in hex. Typically this is off. The LRC byte is
an exclusive OR of all the data bytes without parity. The LRC parity
is set for the LRC byte itself.

PARAMETERS

user field number 1..11, TRUE | FALSE

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

WriteCfg()
pcSwipeGetFieldShowLRC()

SOFTWARE DEVELOPERS KIT API

pcSwipeSetFieldShowSepSen

Windows Linux Mac

BSHRT pcSwipeSetFieldShowSepSen(WORD field, BSHRT enable)

DESCRIPTION

Set the field Show Separators and Sentinels state.
When set the mag data separators and sentinels are keystroked out.
On a typical ISO-7811 standard mag card will have one start one end
sentinel and zero or more field separators. When a track has
one field no FS will be present.

PARAMETERS

user field number 1..11, TRUE | FALSE

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

WriteCfg()
pcSwipeGetFieldShowSepSen()

SOFTWARE DEVELOPERS KIT API

pcSwipeSetFieldSkip

Windows Linux Mac

BSHRT pcSwipeSetFieldSkip(WORD field, BSHRT enable)

DESCRIPTION

Set the field skip state. This allows the field to be enabled
for error processing, but skipped during normal field processing.
If track 1 has an error and the ignore LRC is off then field 10
can be used to print the delimiters for the error.
Tracks 1,2,3 use user fields 9,10, and 11 respectively.

PARAMETERS

user field number 1..11, TRUE, FALSE.

RETURNS

TRUE or FALSE.

SEE ALSO

WriteCfg()
pcSwipeGetFieldSkip()

pcSwipeSetFieldTerm

pcSwipe

BSHRT pcSwipeSetFieldTerm(WORD field, WORD term)

DESCRIPTION

Set the field termination character. The keystroked output will terminate when the length is exceeded or term char is found.

PARAMETERS

field number 1..N, term byte.

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

pcSwipeGetFieldTerm()

S O F T W A R E   D E V E L O P E R S   K I T   A P I

pcSwipeSetFieldTrack

Windows Linux Mac

BSHRT pcSwipeSetFieldTrack(WORD field, BSHRT trackNo)

DESCRIPTION

Set track number for a given user field.

PARAMETERS

user field number 1..11, track number 1..3

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

WriteCfg()
pcSwipeGetFieldIgnoreLRC()

pcSwipeSetLED

Windows Linux Mac

BSHRT pcSwipeSetLED(WORD i, BSHRT v)

DESCRIPTION

Set the LED color for one of the 5 states.
SEE LED_STATE_* #defines and LED_COLORS
The LED colors are changed in RAM immediately.

PARAMETERS

Set value = LED_VALUE

RETURNS

TRUE = Success / FALSE = Failure

pcSwipeSetTrackEnables

Windows Linux Mac

BSHRT pcSwipeSetTrackEnables(WORD trackEnables)

DESCRIPTION

Set track enables. To Enable mag-track 1 set bit 0, for track 2 set bit 1,
for track 3 bit 2. The Good/Bad LED and Beep are based on what tracks are
enabled. The card is considered Good is all the Enabled tracks have
a valid LRC. If no tracks are enabled no keystroke data will be output
and no Good/Bad LED or Beep will occur. It is advised to keep at least
one track enabled.

PARAMETERS

Flags with bits 0,1,2 set to enable and clear to disable tracks.

RETURNS

TRUE

SEE ALSO

pcSwipeGetTrackEnables()

quickReadSerialPort_char

DWORD quickReadSerialPort_char(short index)

DESCRIPTION

C# interface to check for serial data on connected COM port
and receive available bytes. This function sets the timeout
values to 75msec so it is quicker than the ReadSerialPort() function.

PARAMETERS

index == -1 zero internal buffer calls readSerialPort() and fills
up to 1024 byte internal buffer.
index == 0..1023 returns character from internal buffer.

RETURNS

index == -1 returns actual number of characters received.
else returns character at index from internal buffer.

SEE ALSO

readSerialPort_char()
ReadSerialPort()
QuickReadSerialPort()
WriteSerialPort()

SOFTWARE DEVELOPERS KIT API

readDevCfgFmFile_char

Windows Linux Mac

pcProx pcSwipe pcProx Sonar

BSHRT readDevCfgFmFile_char(short index, char c)

DESCRIPTION

The C# interface to ReadDevCfgToFile(). The file name is sent one character at a time at the given index, at index 255 the function ReadDevCfgToFile is called with it's return value.

PARAMETERS

index 0..255. 255 trigger I/O call. When index is 0 internal filename buffer is zeroed out.

RETURNS

TRUE / Success file was written @ 255, else 0..254 always sucess

FALSE file may be locked or the path is invalid.

SEE ALSO

writeDevCfgToFile_char()
ReadDevCfgFmFile()
WriteDevCfgToFile()

SOFTWARE DEVELOPERS KIT API

readSerialPort_char

Windows Linux Mac

DWORD readSerialPort_char(short index)

DESCRIPTION

C# interface to check for serial data on connected COM port
and receive available bytes. This uses a two second timeout.

PARAMETERS

index == -1 zero internal buffer calls readSerialPort() and fills
up to 1024 byte internal buffer.
index == 0..1023 returns character from internal buffer.

RETURNS

index == -1 returns actual number of characters received.
else returns character at index from internal buffer.

SEE ALSO

ReadSerialPort()
quickReadSerialPort_char()
QuickReadSerialPort()

rf_GetDevName

Windows   pcProx pcSwipe pcProx Sonar

BSHRT rf_GetDevName(char *szName)

DESCRIPTION

Same as GetDevName(). Avoids VB name space problem with GetDevName()

SEE ALSO

GetDevName()
getDevName_char()

rf_GetDevType

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

short rf_GetDevType(void)

DESCRIPTION

Same as GetDevType. Avoids VB name space problem with GetDevType()

RETURNS

Return PRXDEVTYP_<name> for USB, Serial or TCP/IP on the Active Device.

SEE ALSO

GetDevType()

SOFTWARE DEVELOPERS KIT API

setBprRlyCtrl_bVolatile

Windows Linux Mac

BSHRT setBprRlyCtrl_bVolatile(short value)

DESCRIPTION

C# interface for safe code. Set BprRlyCtrl member's bVolatile value.
This is only available on the OEM board reader.
You must call ReadCfg() first. This function calls SetBprRlyCtrl() internally.
Note: 0 == commit to EE, 1 == Don't store to EE.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetBprRlyCtrl() if failed or SetBprRlyCtrl().

SOFTWARE DEVELOPERS KIT API

setBprRlyCtrl_iBeeperState

S O F T W A R E   D E V E L O P E R S   K I T   A P I

BSHRT setBprRlyCtrl_iBeeperState(short value)

DESCRIPTION

C# interface for safe code. Set BprRlyCtrl member's iBeeperState value.
You must call ReadCfg() first. This function calls SetBprRlyCtrl() internally.
Note: 0 == Off, 1 == On.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetBprRlyCtrl() if failed or SetBprRlyCtrl().

setBprRlyCtrl_iPad0

BSHRT setBprRlyCtrl_iPad0(short value)

DESCRIPTION

C# interface for safe code. Set BprRlyCtrl member's iPad0 value. You must call ReadCfg() first. This function calls SetBprRlyCtrl() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetBprRlyCtrl() if failed or SetBprRlyCtrl().

SOFTWARE DEVELOPERS KIT API

setBprRlyCtrl_iPad3

BSHRT setBprRlyCtrl_iPad3(short value)

DESCRIPTION

C# interface for safe code. Set BprRlyCtrl member's iPad3 value.
You must call ReadCfg() first. This function calls SetBprRlyCtrl() internally.
Names with iPad are padding values for the eight item structure, they are
available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetBprRlyCtrl() if failed or SetBprRlyCtrl().

SOFTWARE DEVELOPERS KIT API

setBprRlyCtrl_iPad4

Windows Linux Mac

BSHRT setBprRlyCtrl_iPad4(short value)

DESCRIPTION

C# interface for safe code. Set BprRlyCtrl member's iPad4 value.
You must call ReadCfg() first. This function calls SetBprRlyCtrl() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetBprRlyCtrl() if failed or SetBprRlyCtrl().

SOFTWARE DEVELOPERS KIT API

setBprRlyCtrl_iPad5

Windows Linux Mac

BSHRT setBprRlyCtrl_iPad5(short value)

DESCRIPTION

C# interface for safe code. Set BprRlyCtrl member's iPad5 value.
You must call ReadCfg() first. This function calls SetBprRlyCtrl() internally.
Names with iPad are padding values for the eight item structure, they are
available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetBprRlyCtrl() if failed or SetBprRlyCtrl().

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setBprRlyCtrl_iPad6

Windows Linux Mac

BSHRT setBprRlyCtrl_iPad6(short value)

DESCRIPTION

C# interface for safe code. Set BprRlyCtrl member's iPad6 value. You must call ReadCfg() first. This function calls SetBprRlyCtrl() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetBprRlyCtrl() if failed or SetBprRlyCtrl().

setBprRlyCtrl_iRelayState

BSHRT setBprRlyCtrl_iRelayState(short value)

DESCRIPTION

C# interface for safe code. Set BprRlyCtrl member's iRelayState value.
You must call ReadCfg() first. This function calls SetBprRlyCtrl() internally.
Note: 0 == Off, 1 == On.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetBprRlyCtrl() if failed or SetBprRlyCtrl().

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setCfgFlags2_bBeepID

pcProx pcSwipe

BSHRT setCfgFlags2_bBeepID(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags2 member's bBeepID value.
You must call ReadCfg() first. This function calls SetFlags2() internally.
Note: True causes the device to beep when a valid ID is received.

PARAMETERS

short value to set member TRUE or FALSE.

RETURNS

BSHRT value from GetFlags2() if failed or SetFlags2().

setCfgFlags2_bDspHex

Windows Linux Mac

BSHRT setCfgFlags2_bDspHex(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags2 member's bDspHex value.
You must call ReadCfg() first. This function calls SetFlags2() internally.
Note: Display ID as ASCII Hex not ASCII decimal.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags2() if failed or SetFlags2().

setCfgFlags2_bRevBytes

Windows Linux Mac

BSHRT setCfgFlags2_bRevBytes(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags2 member's bRevBytes value.
You must call ReadCfg() first. This function calls SetFlags2() internally.
Note: Reverse byte order (CSN reader).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags2() if failed or SetFlags2().

setCfgFlags2_bRevWiegBits

Windows Linux Mac

BSHRT setCfgFlags2_bRevWiegBits(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags2 member's bRevWiegBits value.
You must call ReadCfg() first. This function calls SetFlags2() internally.
Note: Reverse the Wiegand Rx bits.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags2() if failed or SetFlags2().

SOFTWARE DEVELOPERS KIT API

setCfgFlags2_bUseInvDataF

Windows Linux Mac

BSHRT setCfgFlags2_bUseInvDataF(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags2 member's bUseInvDataF value.
You must call ReadCfg() first. This function calls SetFlags2() internally.
Note: Use the bWiegInvData flag over hardware setting.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags2() if failed or SetFlags2().

SOFTWARE DEVELOPERS KIT API

setCfgFlags2_bUseLeadChrs

Windows Linux Mac

BSHRT setCfgFlags2_bUseLeadChrs(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags2 member's bUseLeadChrs value.
You must call ReadCfg() first. This function calls SetFlags2() internally.
Note: Use leading chars in ID KB send.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags2() if failed or SetFlags2().

SOFTWARE DEVELOPERS KIT API

setCfgFlags2_bWiegInvData

Windows Linux Mac

BSHRT setCfgFlags2_bWiegInvData(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags2 member's bWiegInvData value.
You must call ReadCfg() first. This function calls SetFlags2() internally.
Note: Wiegand data on pins is inverted.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags2() if failed or SetFlags2().

SOFTWARE DEVELOPERS KIT API

setCfgFlags2_isASCIIpresent

Windows Linux Mac

BSHRT setCfgFlags2_isASCIIpresent(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags2 member's isASCIIpresent value.
You must call ReadCfg() first. This function calls SetFlags2() internally.
Names with iPad are padding values for the eight item structure, they are
available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags2() if failed or SetFlags2()

SOFTWARE DEVELOPERS KIT API

setCfgFlags3_bLowerCaseHex

Windows Linux Mac

BSHRT setCfgFlags3_bLowerCaseHex(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags3 member's bLowerCaseHex value.
You must call ReadCfg() first. This function calls SetFlags3() internally.
if the flag is set (non zero) then hex output will use lowercase a-z else
uppercase A-Z.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags3() if failed or SetFlags3().

setCfgFlags3_bNotBootDev

Windows Linux Mac

BSHRT setCfgFlags3_bNotBootDev(short value)

DESCRIPTION

Deprecated function always returns Unsupported API return code.

PARAMETERS

dummy value

RETURNS

Unsupported API return code.

setCfgFlags3_bPrxProEm

BSHRT setCfgFlags3_bPrxProEm(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags3 member's bPrxProEm value.
You must call ReadCfg() first. This function calls SetFlags3() internally.
Note: Use HID ProxPro card emulation. See www.HIDGlobal.com for details.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags3() if failed or SetFlags3()

SOFTWARE DEVELOPERS KIT API

setCfgFlags3_bSndSFFC

BSHRT setCfgFlags3_bSndSFFC(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags3 member's bSndSFFC value.
You must call ReadCfg() first. This function calls SetFlags3() internally.
Note: 0 = FAC Decimal, 1 = FAC Hex.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags3() if failed or SetFlags3().

setCfgFlags3_bSndSFID

BSHRT setCfgFlags3_bSndSFID(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags3 member's bSndSFID value.
You must call ReadCfg() first. This function calls SetFlags3() internally.
Note: 0 = ID Decimal, 1 = ID Hex.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags3() if failed or SetFlags3().

setCfgFlags3_bSndSFON

Windows Linux Mac

BSHRT setCfgFlags3_bSndSFON(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags3 member's bSndSFON value.
You must call ReadCfg() first. This function calls SetFlags3() internally.
Note: Split format ON = 1, old combined scheme = 0.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags3() if failed or SetFlags3().

SOFTWARE DEVELOPERS KIT API

setCfgFlags3_bUse64Bit

BSHRT setCfgFlags3_bUse64Bit(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set CfgFlags3 member's bUse64Bit value.
You must call ReadCfg() first. This function calls SetFlags3() internally.
Note: 0 = 32-bit, 1 = 64-bit Display Math.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags3() if failed or SetFlags3()

setCfgFlags3_bUseNumKP

BSHRT setCfgFlags3_bUseNumKP(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set CfgFlags3 member's bUseNumKP value. You must call ReadCfg() first. This function calls SetFlags3() internally. When true digit are keystroked from the numeric keypad and not the top horizontal row of digits. The digits are the same but the USB scan codes are different for each keyboard key.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags3() if failed or SetFlags3().

setCfgFlags_bFixLenDsp

Windows Linux Mac

BSHRT setCfgFlags_bFixLenDsp(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags member's bFixLenDsp value.
You must call ReadCfg() first. This function calls SetFlags() internally.
Note: Send as fixed length with leading zeros as needed.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags() if failed or SetFlags()

BSHRT setCfgFlags_bFrcBitCntEx(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags member's bFrcBitCntEx value. You must call ReadCfg() first. This function calls SetFlags() internally.
Note: Force Rx'd bit count to be exact to be valid.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags() if failed or SetFlags()

setCfgFlags_bHaltKBSnd

BSHRT setCfgFlags_bHaltKBSnd(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags member's bHaltKBSnd value. You must call ReadCfg() first. This function calls SetFlags() internally.
Note: Don't Send keys to USB (Get ID mechanism).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags() if failed or SetFlags().

S O F T W A R E   D E V E L O P E R S   K I T   A P I

setCfgFlags_bNoUseELChar

Windows Linux Mac

BSHRT setCfgFlags_bNoUseELChar(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags member's bNoUseELChar value.
You must call ReadCfg() first. This function calls SetFlags() internally.
Note: Don't use an EndLine char on send (default to ENTER).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags() if failed or SetFlags().

setCfgFlags_bSndFac

Windows Linux Mac

BSHRT setCfgFlags_bSndFac(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags member's bSndFac value. You must call ReadCfg() first. This function calls SetFlags() internally.
Note: Send the FAC (if stripped from data).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags() if failed or SetFlags().

setCfgFlags_bSndOnRx

Windows Linux Mac

BSHRT setCfgFlags_bSndOnRx(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags member's bSndOnRx value. You must call ReadCfg() first. This function calls SetFlags() internally.
Note: Send valid ID as soon as it is received (iIDLockOutTm timer not used).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags() if failed or SetFlags().

setCfgFlags_bStripFac

Windows Linux Mac

BSHRT setCfgFlags_bStripFac(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags member's bStripFac value.
You must call ReadCfg() first. This function calls SetFlags() internally.
Note: Strip the FAC from the ID (not discarded).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags() if failed or SetFlags().

setCfgFlags_bUseDelFac2Id

Windows Linux Mac

BSHRT setCfgFlags_bUseDelFac2Id(short value)

DESCRIPTION

C# interface for safe code. Set CfgFlags member's bUseDelFac2Id value.
You must call ReadCfg() first. This function calls SetFlags() internally.
Note: Put a delimiter between FAC and ID on send.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetFlags() if failed or SetFlags().

SOFTWARE DEVELOPERS KIT API

setIDBitCnts_iIDBitCnt

Windows Linux Mac

BSHRT setIDBitCnts_iIDBitCnt(short value)

DESCRIPTION

C# interface for safe code. Set IDBitCnts member's iIDBitCnt value. You must call ReadCfg() first. This function calls SetIDBitCnts() internally.
Note: If bStripFac, this determines bit count of ID and FAC.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDBitCnts() if failed or SetIDBitCnts().

setIDBitCnts_iLeadParityBitCnt

BSHRT setIDBitCnts_iLeadParityBitCnt(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set IDBitCnts member's iLeadParityBitCnt value.
You must call ReadCfg() first. This function calls SetIDBitCnts() internally.
Note: Wiegand Leading Parity bit count to be stripped.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDBitCnts() if failed or SetIDBitCnts().

setIDBitCnts_iPad4

Windows Linux Mac

BSHRT setIDBitCnts_iPad4(short value)

DESCRIPTION

C# interface for safe code. Set IDBitCnts member's iPad4 value. You must call ReadCfg() first. This function calls SetIDBitCnts() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDBitCnts() if failed or SetIDBitCnts().

SOFTWARE DEVELOPERS KIT API

[Cached]

setIDBitCnts_iPad5

Windows Linux Mac

BSHRT setIDBitCnts_iPad5(short value)

DESCRIPTION

C# interface for safe code. Set IDBitCnts member's iPad5 value. You must call ReadCfg() first. This function calls SetIDBitCnts() internally. Names with iPad are padding values for the item byte structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDBitCnts() if failed or SetIDBitCnts().

SOFTWARE DEVELOPERS KIT API

setIDBitCnts_iPad6

Windows Linux Mac

BSHRT setIDBitCnts_iPad6(short value)

DESCRIPTION

C# interface for safe code. Set IDBitCnts member's iPad6 value. You must call ReadCfg() first. This function calls SetIDBitCnts() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDBitCnts() if failed or SetIDBitCnts().

SOFTWARE DEVELOPERS KIT API

setIDBitCnts_iPad7

Windows Linux Mac

BSHRT setIDBitCnts_iPad7(short value)

DESCRIPTION

C# interface for safe code. Set IDBitCnts member's iPad7 value. You must call ReadCfg() first. This function calls SetIDBitCnts() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDBitCnts() if failed or SetIDBitCnts().

SOFTWARE DEVELOPERS KIT API

setIDBitCnts_iTotalBitCnt

Windows Linux Mac

BSHRT setIDBitCnts_iTotalBitCnt(short value)

DESCRIPTION

C# interface for safe code. Set IDBitCnts member's iTotalBitCnt value. You must call ReadCfg() first. This function calls SetIDBitCnts() internally.
Note: If bFrcBitCntEx, card read (including parity) must match this.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDBitCnts() if failed or SetIDBitCnts().

setIDBitCnts_iTrailParityBitCnt

Windows Linux Mac

BSHRT setIDBitCnts_iTrailParityBitCnt(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set IDBitCnts member's iTrailParityBitCnt value.
You must call ReadCfg() first. This function calls SetIDBitCnts() internally.
Note: Wiegand Trailing Parity bit count to be stripped

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDBitCnts() if failed or SetIDBitCnts()

setIDDispParms2_iCrdGnChr0

Windows Linux Mac

BSHRT setIDDispParms2_iCrdGnChr0(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms2 member's iCrdGnChr0 value.
You must call ReadCfg() first. This function calls SetIDDispParms2() internally.
Note: If non-zero, sent when ID goes Invalid on RS-232 readers.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms2() if failed or SetIDDispParms2().

SOFTWARE DEVELOPERS KIT API

setIDDispParms2_iCrdGnChr1

Windows Linux Mac

BSHRT setIDDispParms2_iCrdGnChr1(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms2 member's iCrdGnChr1 value. You must call ReadCfg() first. This function calls SetIDDispParms2() internally.
Note: If this and Chr0 non-zero, sent when ID goes Invalid on RS-232 readers.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms2() if failed or SetIDDispParms2()

BSHRT setIDDispParms2_iLeadChr0(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms2 member's iLeadChr0 value.
You must call ReadCfg() first. This function calls SetIDDispParms2() internally.
Note: These lead characters are filled in (up to 3).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms2() if failed or SetIDDispParms2().

setIDDispParms2_iLeadChr1

Windows Linux Mac

BSHRT setIDDispParms2_iLeadChr1(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set IDDispParms2 member's iLeadChr1 value.
You must call ReadCfg() first. This function calls SetIDDispParms2() internally.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms2() if failed or SetIDDispParms2().

setIDDispParms2_iLeadChr2

pcProx

BSHRT setIDDispParms2_iLeadChr2(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms2 member's iLeadChr2 value.
You must call ReadCfg() first. This function calls SetIDDispParms2() internally.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms2() if failed or SetIDDispParms2().

SOFTWARE DEVELOPERS KIT API

setIDDispParms2_iLeadChrCnt

BSHRT setIDDispParms2_iLeadChrCnt(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set IDDispParms2 member's iLeadChrCnt value.
You must call ReadCfg() first. This function calls SetIDDispParms2() internally.
Note: If bUseLeadChrs, this contains the lead char count (<=3).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms2() if failed or SetIDDispParms2().

setIDDispParms2_iPad6

Windows Linux Mac

BSHRT setIDDispParms2_iPad6(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms2 member's iPad6 value. You must call ReadCfg() first. This function calls SetIDDispParms2() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms2() if failed or SetIDDispParms2()

SOFTWARE DEVELOPERS KIT API

setIDDispParms2_iPad7

BSHRT setIDDispParms2_iPad7(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms2 member's iPad7 value. You must call ReadCfg() first. This function calls SetIDDispParms2() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms2() if failed or SetIDDispParms2()

SOFTWARE DEVELOPERS KIT API

setIDDispParms3_iPad4

[Cached]

Windows Linux Mac

pcProx

BSHRT setIDDispParms3_iPad4(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms3 member's iPad4 value. You must call ReadCfg() first. This function calls SetIDDispParms3() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms3() if failed or SetIDDispParms3().

SOFTWARE DEVELOPERS KIT API

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setIDDispParms3_iPad5

Windows Linux Mac

BSHRT setIDDispParms3_iPad5(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms3 member's iPad5 value. You must call ReadCfg() first. This function calls SetIDDispParms3() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms3() if failed or SetIDDispParms3().

SOFTWARE DEVELOPERS KIT API

setIDDispParms3_iPad6

Windows Linux Mac

BSHRT setIDDispParms3_iPad6(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms3 member's iPad6 value. You must call ReadCfg() first. This function calls SetIDDispParms3() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms3() if failed or SetIDDispParms3().

setIDDispParms3_iPad7

Windows Linux Mac

BSHRT setIDDispParms3_iPad7(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms3 member's iPad7 value. You must call ReadCfg() first. This function calls SetIDDispParms3() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms3() if failed or SetIDDispParms3().

SOFTWARE DEVELOPERS KIT API

setIDDispParms3_iTrailChr0

BSHRT setIDDispParms3_iTrailChr0(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms3 member's iTrailChr0 value
You must call ReadCfg() first. This function calls SetIDDispParms3() internally.
Note: These trail characters are filled in (up to 3).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms3() if failed or SetIDDispParms3().

setIDDispParms3_iTrailChr1

BSHRT setIDDispParms3_iTrailChr1(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms3 member's iTrailChr1 value. You must call ReadCfg() first. This function calls SetIDDispParms3() internally. Note: LeadChrCnt + TrailCheCnt <= 3.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms3() if failed or SetIDDispParms3().

setIDDispParms3_iTrailChr2

BSHRT setIDDispParms3_iTrailChr2(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set IDDispParms3 member's iTrailChr2 value.
You must call ReadCfg() first. This function calls SetIDDispParms3() internally.
Note: LeadChrs have priority.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms3() if failed or SetIDDispParms3().

setIDDispParms3_iTrailChrCnt

BSHRT setIDDispParms3_iTrailChrCnt(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms3 member's iTrailChrCnt value.
You must call ReadCfg() first. This function calls SetIDDispParms3() internally.
Note: This contains the trail char count (<=3)

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms3() if failed or SetIDDispParms3().

SOFTWARE DEVELOPERS KIT API

setIDDispParms_iELDelim

Windows Linux Mac

BSHRT setIDDispParms_iELDelim(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms member's iELDelim value. You must call ReadCfg() first. This function calls SetIDDispParms() internally. Note: If NOT bNoUseELChar, this character is sent at end of ID.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms() if failed or SetIDDispParms().

S O F T W A R E   D E V E L O P E R S   K I T   A P I

setIDDispParms_iExOutputFormat

Windows Linux Mac

BSHRT setIDDispParms_iExOutputFormat(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

You must call ReadCfg() first. This function calls GetIDDispParms() internally.
Note : If iExOutputFormat, Reader will output in Extended mode. It is applicable only
for Plus Extended readers because these readers have capability to give output in both
Conventional and Extended mode.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms() if failed or SetIDDispParms().

setIDDispParms_iFACDispLen

Windows Linux Mac

BSHRT setIDDispParms_iFACDispLen(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set IDDispParms member's iFACDispLen value. You must call ReadCfg() first. This function calls SetIDDispParms() internally.
Note: If bFixLenDsp, FAC padded with zeros to this length.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms() if failed or SetIDDispParms().

setIDDispParms_iFACIDDelim

Windows Linux Mac

BSHRT setIDDispParms_iFACIDDelim(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms member's iFACIDDelim value. You must call ReadCfg() first. This function calls SetIDDispParms() internally.
Note: If bStripFac and bSndFac and bUseDelFac2Id, this character is sent between FAC and ID.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms() if failed or SetIDDispParms().

SOFTWARE DEVELOPERS KIT API

setIDDispParms_iIDDispLen

BSHRT setIDDispParms_iIDDispLen(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set IDDispParms member's iIDDispLen value. You must call ReadCfg() first. This function calls SetIDDispParms() internally.
Note: If bFixLenDsp, ID padded with zeros to this length.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms() if failed or SetIDDispParms().

setIDDispParms_iPad5

BSHRT setIDDispParms_iPad5(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms member's iPad5 value. You must call ReadCfg() first. This function calls SetIDDispParms() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms() if failed or SetIDDispParms().

SOFTWARE DEVELOPERS KIT API

setIDDispParms_iPad6

Windows Linux Mac

BSHRT setIDDispParms_iPad6(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms member's iPad6 value. You must call ReadCfg() first. This function calls SetIDDispParms() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms() if failed or SetIDDispParms().

setIDDispParms_iPad7

BSHRT setIDDispParms_iPad7(short value)

DESCRIPTION

C# interface for safe code. Set IDDispParms member's iPad7 value. You must
call ReadCfg() first. This function calls SetIDDispParms() internally.
Names with iPad are padding values for the eight item structure, they are
available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetIDDispParms() if failed or SetIDDispParms()

SOFTWARE DEVELOPERS KIT API

setLEDCtrl_bAppCtrlsLED

BSHRT setLEDCtrl_bAppCtrlsLED(short value)

DESCRIPTION

C# interface for safe code. Set LEDCtrl member's bAppCtrlsLED value. You must call ReadCfg() first. This function calls SetLEDCtrl() internally.
For pcProx Sonar this is the Yellow Transition state.
Note: Display LEDs are controlled by user thru this library.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetLEDCtrl() if failed or SetLEDCtrl().

SOFTWARE DEVELOPERS KIT API

BSHRT setLEDCtrl_bVolatile(short value)

DESCRIPTION

C# interface for safe code. Set LEDCtrl member's bVolatile value. You must call ReadCfg() first. This function calls SetLEDCtrl() internally.
Note: 0 == commit to EE, 1 == Don't store to EE

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetLEDCtrl() if failed or SetLEDCtrl().

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[Cached]

SOFTWARE DEVELOPERS KIT API

setLEDCtrl_iGrnLEDState

BSHRT setLEDCtrl_iGrnLEDState(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set LEDCtrl member's iGrnLEDState value. You must call ReadCfg() first. This function calls SetLEDCtrl() internally.
Note: 0 == Off, 1 == On

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetLEDCtrl() if failed or SetLEDCtrl().

setLEDCtrl_iPad3

Windows Linux Mac

BSHRT setLEDCtrl_iPad3(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set LEDCtrl member's iPad3 value. You must call ReadCfg() first. This function calls SetLEDCtrl() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetLEDCtrl() if failed or SetLEDCtrl().

setLEDCtrl_iPad4

BSHRT setLEDCtrl_iPad4(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set LEDCtrl member's iPad4 value. You must call ReadCfg() first. This function calls SetLEDCtrl() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetLEDCtrl() if failed or SetLEDCtrl().

setLEDCtrl_iPad5

Windows Linux Mac

BSHRT setLEDCtrl_iPad5(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set LEDCtrl member's iPad5 value. You must call ReadCfg() first. This function calls SetLEDCtrl() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetLEDCtrl() if failed or SetLEDCtrl().

setLEDCtrl_iPad6

Windows Linux Mac

BSHRT setLEDCtrl_iPad6(short value)

DESCRIPTION

C# interface for safe code. Set LEDCtrl member's iPad6 value. You must call ReadCfg() first. This function calls SetLEDCtrl() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetLEDCtrl() if failed or SetLEDCtrl().

SOFTWARE DEVELOPERS KIT API

setLEDCtrl_iRedLEDState

BSHRT setLEDCtrl_iRedLEDState(short value)

DESCRIPTION

C# interface for safe code. Set LEDCtrl member's iRedLEDState value. You must call ReadCfg() first. This function calls SetLEDCtrl() internally.
Note: 0 == Off, 1 == On.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetLEDCtrl() if failed or SetLEDCtrl().

S O F T W A R E   D E V E L O P E R S   K I T   A P I

setTimeParms_ExFeatures01

Windows Linux Mac

BSHRT setTimeParms_ExFeatures01(short value)

DESCRIPTION

C# interface for safe code. Set TimeParms member's iPad5 value. You must call ReadCfg() first. This function calls SetTimeParms() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetTimeParms() if failed or SetTimeParms().

SOFTWARE DEVELOPERS KIT API

setTimeParms_iBitStrmTO

Windows Linux Mac

BSHRT setTimeParms_iBitStrmTO(short value)

SOFTWARE DEVELOPERS KIT API

DESCRIPTION

C# interface for safe code. Set TimeParms member's iBitStrmTO value. You must call ReadCfg() first. This function calls SetTimeParms() internally.
Note: Wiegand read times out after this msec time (48msec granularity).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetTimeParms() if failed or SetTimeParms().

setTimeParms_iIDHoldTO

Windows Linux Mac

BSHRT setTimeParms_iIDHoldTO(short value)

DESCRIPTION

C# interface for safe code. Set TimeParms member's iIDHoldTO value. You must call ReadCfg() first. This function calls SetTimeParms() internally.
Note: Card ID remains valid for this msec time (48msec granularity).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetTimeParms() if failed or SetTimeParms().

SOFTWARE DEVELOPERS KIT API

setTimeParms_iIDLockOutTm

S O F T W A R E

D E V E L O P E R S

K I T

A P I

pcProx

BSHRT setTimeParms_iIDLockOutTm(short value)

DESCRIPTION

C# interface for safe code. Set TimeParms member's iIDLockOutTm value.
You must call ReadCfg() first. This function calls SetTimeParms() internally.
Note: Squelch repetitive reader reports (usually < 1000) in msec (48msec granularity).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetTimeParms() if failed or SetTimeParms().

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setTimeParms_iPad6

BSHRT setTimeParms_iPad6(short value)

DESCRIPTION

C# interface for safe code. Set TimeParms member's iPad6 value. You must call ReadCfg() first. This function calls SetTimeParms() internally.
Names with iPad are padding values for the eight item structure, they are available for completeness and for future firmware expansion.

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetTimeParms() if failed or SetTimeParms().

setTimeParms_iTPCfgFlg3

Windows Linux Mac

BSHRT setTimeParms_iTPCfgFlg3(short value)

DESCRIPTION

C# interface for safe code. Set TimeParms member's iTPCfgFlg3 value. You must call ReadCfg() first. This function calls SetTimeParms() internally.
Note: It is recommended to use the Flags3 structure and not the bits in this byte. Further Flags not related to Time at all (see tsCfgFlags3).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetTimeParms() if failed or SetTimeParms().

SOFTWARE DEVELOPERS KIT API

setTimeParms_iUSBKeyPrsTm

Windows Linux Mac   pcProx pcSwipe pcProx Sonar

BSHRT setTimeParms_iUSBKeyPrsTm(short value)

DESCRIPTION

C# interface for safe code. Set TimeParms member's iUSBKeyPrsTm value. You must call ReadCfg() first. This function calls SetTimeParms() internally.
Note: Set USB inter-key 'Press' time in msecs (4msec granularity).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetTimeParms() if failed or SetTimeParms().

setTimeParms_iUSBKeyRlsTm

BSHRT setTimeParms_iUSBKeyRlsTm(short value)

DESCRIPTION

C# interface for safe code. Set TimeParms member's iUSBKeyRlsTm value. You must call ReadCfg() first. This function calls SetTimeParms() internally.
Note: Set USB inter-key 'Release' time in msecs (4msec granularity).

PARAMETERS

Set member name to value of short.

RETURNS

BSHRT value from GetTimeParms() if failed or SetTimeParms().

SOFTWARE DEVELOPERS KIT API

usbConnect

BSHRT usbConnect(void)

DESCRIPTION

A C# interface to USBConnect() without taking a pointer to a long.
Set the types of device to search for when connecting using USBConnect()
Searching for serial devices is much slower than search for USB only devices.
A wrapper on USBConnect. It returns the same value. It does not
require a pointer to return the DeviceID. Use GetDID() to retrieve
the firmware version.
Serial port range defaults are 1..8 at powerup.
This API is thread-safe.

PARAMETERS

None

RETURNS

TRUE = Success / FALSE = Failure

SEE ALSO

USBConnect()
ComConnect()

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SOFTWARE DEVELOPERS KIT API

writeDevCfgToFile_char

[Cached]

pcProx pcSwipe pcProx Sonar

BSHRT writeDevCfgToFile_char(short index, char c)

DESCRIPTION

The C# interface to WriteDevCfgToFile(). The file name is sent one
character at a time at the given index, at index 255 the function
WriteDevCfgToFile is called with it's return value.

PARAMETERS

index 0..255. 255 trigger I/O call. When index is 0 internal filename
buffer is zeroed out.

RETURNS

 TRUE / Success file was written @ 255, else 0..254 always sucess

FALSE file may be locked or the path is invalid.

SEE ALSO

readDevCfgFmFile_char()
ReadDevCfgFmFile()
WriteDevCfgToFile()

Updates

From time to time the library will have new features or functions added to it.
Check the website for updates.