**Aclas Scale SDK**

**1:** **Introduction**

This document will introduce how to call Aclas Scale SDK interface to communicate with Aclas electronic scales.

Aclas Scale SDK support communicate through DLL and Console panel, available for codes including: Ansi、Ascii、UTF7、UTF8、Unicode、BigendianUnicode.

File list：

1、AclasSDK.dll ----dynamic link library

2、AclasSDKConsole.exe ---- Console panel application

AclasSDKConsole.exe running base on AclasSDK.dll, means AclasSDKConsole.exe can not running without AclasSDK.dll.

**2:** **Driver Entry**

2.1:DLL Interface

Function: DLL initialize

Function Definition: function AclasSDK\_Initialize(Encoding: TASSDKEncoding = ecAnsi): Boolean; stdcall;

Parameter: Encoding enumeration type, fix coding format.

Return Value: True for success, False for fail.

Function: release DLL

Function Definition: procedure AclasSDK\_Finalize; stdcall;

Function: achieve device infomation

Function Definition: function AclasSDK\_GetDevicesInfo(HostInfo: TASSDKHostInfo; FamilyType: TASSDKFamilyType): TASSDKDeviceInfo; stdcall;

Parameter: HostInfo device address information

FamilyType protocol type, please refer define list. And set as ftNone for unknown protocol.

Return Value: device information, please refer define list

Function: execute task

Function Define:

function AclasSDK\_ExecTaskA(HostInfo: TASSDKHostInfo; FamilyType: TASSDKFamilyType; TaskType: TASSDKTaskType;

lpFileName: PAnsiChar; OnProgress: TASSDKOnProgressEvent; lpUserData: Pointer): TASSDKTaskHandle; stdcall;

function AclasSDK\_ExecTask(HostInfo: TASSDKHostInfo; FamilyType: TASSDKFamilyType; TaskType: TASSDKTaskType;

lpFileName: PChar; OnProgress: TASSDKOnProgressEvent; lpUserData: Pointer): TASSDKTaskHandle; stdcall;

function AclasSDK\_ExecTaskW(HostInfo: TASSDKHostInfo; FamilyType: TASSDKFamilyType; TaskType: TASSDKTaskType;

lpFileName: PChar; OnProgress: TASSDKOnProgressEvent; lpUserData: Pointer): TASSDKTaskHandle; stdcall;

Parameter: HostInfo Device address information

FamilyType protocol type, please refer define list. And set as ftNone for unknown protocol.

TaskType task type, please refere define list

lpFileName file name needle, AclasSDK\_ExecTaskA for AnsiChar, AclasSDK\_ExecTaskW for WideChar

OnProgress process call-back function

lpUserData user data needle

return value: task handle

Function: achieve last error code

Function define:

function AclasSDK\_GetLastTaskError: Integer; stdcall;

reture value: Last error code

Function: stop task

Function define: procedure AclasSDK\_StopTask(TaskHandle: THandle = 0); stdcall;

Parameter: Task Handle execute AclasSDK\_ExecTask and return task handle. Stop all task if set as “0”

Function: wait for task complete

Function define: procedure AclasSDK\_WaitForTask(TaskHandle: THandle); stdcall;

Parameter: TaskHandle execute AclasSDK\_ExecTask and return task handle.

2.1: Console panel interface

Call through command line, call AclasSDKConsole.exe with parameter to execute command.

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| Parameter Instruction: |

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| Parameter | Value | Description |
| -h | Host address | Device address |
| -t | UP  Down  Del  List | upload  download  delete  get list(only for file operation) |
| -n | “file name” | Data file name（Absolute Path） |
| -b | **Data operate:**  PLU  Department  Group  Unit  Origin  Country  Slaughterhouse  Cuttinghall  Tare  Note  Adjunct  Time  **File operate:**  Image  Layout  Video  Label  File | PLU Data  Department Data  Department Group  Unit  Original Country  Country  Slaughter house  Cuttinghall  Tare weight  Record information  Additional information  Time Sync  Image file  Reserved  Video file  Label file  Other file |
| -f | Code format | Ansi（default）  Ascii  Utf7  Utf8  Unicode  Bigendianunicode |

Sample：

Function: Update PLU data from device address 192.168.1.8 to file “D:/PLU.txt” through Unicode.

Command: AclasSDKConsole.exe -h 192.168.1.8 -t UP -n "d:/PLU.txt" -b PLU –f Unicode

Function: Download Unit data from device address 192.168.1.2 port 5003 to file “D:/Unit.txt”

Command: AclasSDKConsole.exe -h 192.168.1.2:5003 -t Down -n "D:/Unit.txt" -b Unit

Function: Delete PLU which listed in file “D:/PLU.txt” from device address 192.168.1.2

Command: AclasSDKConsole.exe -h 192.168.1.2 -t Del -n "D:/PLU.txt" -b PLU

Function: Delete all PLU data from device address 192.168.1.2

Command: AclasSDKConsole.exe -h 192.168.1.2 -t Del -n "" -b PLU

Function: Sync time to device address 192.168.1.2

Command: AclasSDKConsole.exe -h 192.168.1.2 -t Down -n "2008-08-08 08:08:08" -b Time

Function: Download label from file “D:/Label1.tbl” to device address 192.168.1.2

Command: AclasSDKConsole.exe -h 192.168.1.2 -t Down -n "D:/Label1.tbl" -b Label

Function: Upload image list from device address 192.168.1.2 to file “D:/ImageList.txt” through default Ansi code

Command: AclasSDKConsole.exe -h 192.168.1.2 -t List -n "D:/ImageList.txt" -b Image

**3: Data format**

**3.1: Format instruction**

.each field or data divided via TAB（0x09）

.Fist line set as field name, data come from seond line. There is no limit sequence of field name, but the data should follow in order of field name.

Sample:

ID DepartmentID GroupID Name1 Price

90001 1 1 Apple 9.99

90002 2 1 Pear 8.88

90003 1 2 Banana 3.00

**3.2: Format define**

major key bolded

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| **PLU** | | | |
| **Field name** | **Type** | **Range** | **Description** |
| **ID** | Int | 999999 | PLU ID |
| DepartmentID | Int | 1..99 | Department ID. Link to ID in Department sheet |
| GroupID | Int | 0..99 | Group ID. Link to ID in Group sheet |
| ItemCode | Str | 16 | Item Code |
| Name1 | Str | 40 | Name 1 |
| Name2 | Str | 40 | Name 2 |
| Name3 | Str | 40 | Name 3 |
| Label1ID | Int | 0..32 | Label code 1. 0:Do not print |
| Label2ID | Int | 0..32 | Label code 2. 0:Do not print |
| BarcodeType1 | Int | 0..150 | Barcode type 1. 0-100; intergration; 101-150: customize |
| BarcodeType2 | Int | 0..150 | Barcode type 2. 0-100; intergration; 101-150: customize |
| UnitID | Int |  | Unit ID. Link to ID in Unit sheet |
| Price | Float |  | Unit Price. Maximum 2 decimal |
| ShelfValue | Int | 0..999 | Fresh Day. 0: no use; 1-999: Fresh Days |
| ValidDays | Int | 0..999 | Valid Day 0: no use; 1-999: Valid Days |
| PackageRange | Int | 0..99 | Package Deviation Range. 0-99% |
| PackageType | Int | 0..4 | Package Range 0:normal; 1:fix weight; 2:fix price; 3:fix weight and price; 4:mix |
| PackageWeight | Float |  | Package weight, or limit sell weight |
| Text1ID | Int | 0..32 | Text code 1; 0: no print 1-32: link to ItemIndex in Text ID=1 |
| Text2ID | Int |  | Text code 2; 0: no print 1-32: link to ItemIndex in Text ID=2 |
| Text3ID | Int |  | Text code 3; 0: no print 1-32: link to ItemIndex in Text ID=3 |
| Text4ID | Int |  | Text code 4; 0: no print 1-32: link to ItemIndex in Text ID=4 |
| Text5ID | Int |  | Text code 5; 0: no print 1-32: link to ItemIndex in Text ID=5 |
| Text6ID | Int |  | Text code 6; 0: no print 1-32: link to ItemIndex in Text ID=6 |
| Text7ID | Int |  | Text code 7; 0: no print 1-32: link to ItemIndex in Text ID=7 |
| Text8ID | Int |  | Text code 8; 0: no print 1-32: link to ItemIndex in Text ID=8 |
| DiscountID | Int | 0..99 | Discount ID. 0: no discount; 1-99: link to ID in Discount sheet |
| Flag1 | Int |  | bin0: price lock; 0 No; =1 Yes  bin1: Fresh Day calculate via(Day/Time) ; 0 via day; =1 via time |
| Flag2 | Int |  | Text print mark; Bin0 link to Text1; 0 print, 1 no print; |
| TareID | Int | 0..99 | Tare weight. 0: void; 1-99 link to ID in Tare sheet |
| IceID | Int | 0..99 | Ice weight. 0: void; 1-99 link to ID in Tare sheet |
| ProducedDate | Str |  | Produce Date: YYYY-MM-DD hh:mm:ss |
| PackageDays | Int | 0..999 | Package date=present date+Value |
| PackageHours | Int | 0..24 | Package hour. 0 no print |
| Flag3 | Int |  | bin0: Traceability product? 0=no，1=yes;  bin1: Tracking sequence 0=first-in first-out; 1=last-in first-out;  bin2 Price limitation 0=no limit 1=under limit price |
| OriginID | Int | 0..500 | Original country (0~500) 0: no print |
| TraceabilityID | Int | 0..250 | Traceability country (0~250) 0: no print |
| DiscountRate | Float | 0..100 | Discount Rate; 90.05%-->9005 |
| TareValue | Float |  | Tare weight value |
| HalfDiscount | Float | 0..99 | 1/2 Discount Rate （0~99） |
| QuarterDiscount | Float | 0..99 | 1/4 Discount Rate （0~99） |
| LimitPrice | Float |  | Limit price (no limit price if vaule=0) |
| Logo1 | Int |  | Logo1 |
| Logo2 | Int |  | Logo2 |
| Logo3 | Int |  | Logo3 |
| IsShowTouch1 | Int |  | Show no display or not |
| Position1 | Int |  | Display position |
| ButtonColor | Int |  | Button color |
| FontName | Str |  | Front name |
| FontColor | Int |  | Front color |
| FontSize | Int |  | Front size |
| FontBold | Bit |  | Bold |
| FontItalic | Bit |  | Italic |
| FontUnderline | Bit |  | Underline |
| FontStrikeout | Bit |  | Strikeout |

Note: only choose one between TareID and TareValue; only choose one between DiscountID and Discount

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| --- | --- | --- | --- |
| **Department** | | | |
| **Field name** | **Type** | **Size** | **Description** |
| **ID** | Int |  | Department ID |
| Name | Str | 30 | Name |
| IsShowTouch1 | Int |  | Show on display or not |
| ShowPosition | Int |  | Display position |
| ButtonColor | Int |  | Button color |
| FontName | Str |  | Front name |
| FontColor | Int |  | Front color |
| FontSize | Int |  | Front size |
| FontBold | Bit |  | Bold |
| FontItalic | Bit |  | Italic |
| FontUnderline | Bit |  | Underline |
| FontStrikeout | Bit |  | Strikeout |

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| **Group** | | | |
| **Field name** | **Type** | **Size** | **Description** |
| **ID** | Int |  | Group ID |
| Name | Str | 30 | Name |

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| **Unit** | | | |
| **Field name** | **Type** | **Size** | **Description** |
| **ID** | Int |  | Unit ID |
| Name | Str | 30 | Name |
| Description | Str | 50 | Description |

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| **Tare** | | | |
| **Field name** | **Type** | **Size** | **Description** |
| **ID** | Int |  | ID |
| Name | Str | 30 | Name |
| Type | Int |  | Type  0: Tare weight；  1: Tare weight % (present weight \*TARE%)；  2: Tare Ice weight% ；  3: Ice weight |
| Value | Float |  | Value |

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| **Note** | | | |
| **Field name** | **Type** | **Size** | **Description** |
| **PLUID** | Int | n | ID |
| Value | Str | 1000 | Ingredients |

**Note：PLUID linke to ID in PLU sheet，Ingredients as PLU** **annex sheet。**

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| **Adjunct** | | | |
| **Field name** | **Type** | **Size** | **Description** |
| **PLUID** | Int | n | ID |
| Value | Str | 1000 | Additional information |

**Note: PLUID link to ID in PLU sheet，Adjunct as PLU annex sheet.**

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| **Origin** | | | |
| **Field name** | **Type** | **Size** | **Description** |
| **ID** | Int | 1-500 | ID |
| Name | Str | 30 | Original country name |

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| --- | --- | --- | --- |
| **Country** | | | |
| **Field name** | **Type** | **Size** | **Description** |
| **ID** | Int | 1-128 | ID |
| Name | Str | 28 | Country name |

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| **SlaughterHouse** | | | |
| **Field name** | **Type** | **Size** | **Description** |
| **ID** | Int | 1-64 | ID |
| CountryID | Int |  | Country ID; Link to ID in Country sheet |
| Name | Str | 40 | Name |

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| **Cuttinghall** | | | |
| **Field name** | **Type** | **Size** | **Description** |
| **ID** | Int | 1-128 | ID |
| CountryID | Int |  | Country ID |
| Name | Str | 40 | Name |

NOTE

Below character in string need to be replaced during transfer, or system would not recognize correct data.

Original Character Replace to

0x09 <-> {$09}

0x0A <-> {$0A}

0x0D <-> {$0D}

Please change to other character if present data including character {$09}, {$0A}, {$0D}