

kevin 1 hour ago

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README.md

# DotPadSDK 1.0.0 Windows

## Overview

- A Windows library for Dot Incorporation's Dot Pad
- To be used for application development for the Dot Pad

## File description

- DotPadSDK.dll: the library for control the Dot Pad
- TTBEngine.dll: the library for braille translation using in DotPadSDK.dll
- MeCab.dll: the library for braille translation using in MeCab.dll
- jsoncpp.dll: the library for JSON file parsing
- dot\_pad\_sdk.h: the header file that includes information about the APIs
- dot\_pad\_sdk\_error.h: the header file that defines error values that will be returned after calling APIs
- mecabrc: the setting file for braille translation
- ipadic: the dictionary folder for braille translation

## Function description

### DOT\_PAD\_SDK\_ERROR DOT\_PAD\_INIT(int port\_number);

- the function that initiates the Dot Pad
- an app should call this function before using the Dot Pad

```
return
    DOT_PAD_SDK_ERROR
```

parameter  
COM ports

## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_INIT\_WITH\_DEVICE\_TYPE(int port\_number, int deviceType);**

- the function that initiates the Dot Pad
- an app should call this function before using the Dot Pad

```
return
    DOT_PAD_SDK_ERROR
parameter
    COM ports
    device type
        0: 300(20*15)
        1: 300(30*10)
        2: 320
        3: 832
        4: 140
        5: 20
        6: 12
```



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_DEINIT(void);**

- the function that de-initiates the Dot Pad
- an app should call this function after using the Dot Pad

```
return
    DOT_PAD_SDK_ERROR
parameter
    none
```



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_DISPLAY(char\* displayFile);**

- the function that displays on the Dot Pad using the file path

```
return
    DOT_PAD_SDK_ERROR
parameter
    display file(DTM file) path
```



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_DISPLAY\_DATA(uint8\_t\* data, int len, bool refresh);**

- the function that displays on the Dot Pad using the data

```
return
    DOT_PAD_SDK_ERROR
parameter
    1st: display data (depends on the device type, 300 Dot Pad needs 300 bytes of data)
    2nd: the length of the data
    3rd: if true, refresh all displays
```



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_DISPLAY\_DATA\_PART(uint8\_t\* data, int len, int startIdx);**

- the function that displays on the Dot Pad using the data

```
return
    DOT_PAD_SDK_ERROR
parameter
    1st: display data (depends on the device type)
    2nd: the length of the data
    3rd: start index of the Dot Pad (from left top to right bottom)
```



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_RESET\_DISPLAY();**

- the function that reset the display

```
return
    DOT_PAD_SDK_ERROR
parameter
    none
```



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_BRAILLE\_DISPLAY(const wchar\_t\* strInput, int language);**

- the function that displays on the braille of Dot Pad using string

```
return
    DOT_PAD_SDK_ERROR
parameter
    1st: string data that will be converted to braille, UTF-16
    2nd: language option
        0x01: Arabic
        0x03: Chinese Mandarin
        0x05: English
        0x06: French
        0x07: German
        0x08: Italian
        0x0B: Russian
        0x09: Japanese
        0x0A: Korean
        0x0C: Spanish
        0x0D: Vietnamese
        0x10: Czech
        0x11: Polish
        0x12: Norwegian
```



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_BRAILLE\_ASCII\_DISPLAY(const char\* brailleASCII);**

- the function that displays on the braille of Dot Pad using braille ASCII data

```
return
    DOT_PAD_SDK_ERROR
parameter
    braille ASCII data
```



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_RESET\_BRAILLE\_DISPLAY();**

- the function that reset the braille display

```
return
    DOT_PAD_SDK_ERROR
```



parameter  
none

## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_SEND\_KEY(int nKeyCode);**

- the function that sends key input

return  
DOT\_PAD\_SDK\_ERROR  
parameter  
1: previous  
2: next



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_GET\_FW\_VERSION(void(CALLBACK\* cb)(char\*));**

- the function that gets the firmware version

return  
DOT\_PAD\_SDK\_ERROR  
parameter  
function pointer



- callback function

return  
none  
parameter  
firmware version characters pointer



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_GET\_DEVICE\_NAME(void(CALLBACK\* cb)(char\*));**

- the function that gets the device name

return  
DOT\_PAD\_SDK\_ERROR  
parameter  
function pointer



- callback function

return  
none  
parameter  
device name characters pointer



## **DOT\_PAD\_SDK\_ERROR GetDisplayInfo(int\* width, int\* height, int\* braille);**

- the function that gets the display info

return  
DOT\_PAD\_SDK\_ERROR  
parameter  
1st: the number of pad width cells  
2nd: the number of pad height cells  
3rd: the number of pad braille cells



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_REGISTER\_KEY\_CALLBACK(void(CALLBACK\* cb)(int));**

- the function that registers a callback function to be called by key input

```
return
    DOT_PAD_SDK_ERROR
parameter
    function pointer
```



- callback function

```
return
    none
parameter
    callback function pointer
    - pressed key information(e.g. 0/1/2/3 from the left on 320 Dot Pad)
```



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_REGISTER\_DISPLAY\_CALLBACK(void(CALLBACK\* cb)(void));**

- the function that registers a callback function to be called when the display is complete

```
return
    DOT_PAD_SDK_ERROR
parameter
    function pointer
```



- callback function

```
return
    none
parameter
    callback function pointer
```



## **DOT\_PAD\_SDK\_ERROR DOT\_PAD\_GET\_DTMS\_DATA(const char\* url);**

- the function that set DTMS data using URL

```
return
    DOT_PAD_SDK_ERROR
parameter
    DTMS URL
```



## **how to use the Dot Pad SDK for Windows**

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- Power on the Dot Pad
- Check the battery status.
- Connect the Dot Pad to your laptop
- Check which port connected with the Dot Pad (Device Manager -> COM & LPT)
- Initialize the Dot Pad using *DOT\_PAD\_INIT* function with the port number in an application
- Display the data using the functions in an application
- After using it, de-initialize using *DOT\_PAD\_DEINIT* function in an application