ZD-USBSwitch Python SDK Description Manual

V1.0

Change History

Date	Version	Author	Description of change
15.06.2021	1.0	Yu-Ling Hsieh	New document

Table of Contents

Overview

- ZD-USBSwitch Python SDK

1. General information

Python SDK package name: zuss
Python SDK version: 2.0.7
Target environment: Windows 10

2. Installation

- **Online install**

    pip install --index-url https://test.pypi.org/simple/ --no-deps zuss

- **Offline install**

    Install the *.whl* file in offline environment

3. SDK Description

This chapter describes the SDK description and usage.

3.1 detect_comports

Check that the current host is connected to the corresponding port number on the computer.

Arguments

None

Returns

The list of serial COM ports in use :list

Example

Code

```python
from zuss import *

a = detect_comports()
print(a)
```


Output

```
COM16 - Silicon Labs CP210x USB to UART Bridge (COM16)
['COM16']
```

3.2 get_version

Get current version information.

Argument: serial_num: str

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	

Returns

None.

Example

Code

```
from zuss import *

get_version("COM16")
```

Output

```
Receive command: len=18, <GET_SW_VERSION{}>

CMD: GET_SW_VERSION

Return: [GET_SW_VERSION{v1.0 (May 27 2021 12:58:08)}]

[GET_SW_VERSION{v1.0 (May 27 2021 12:58:08)}]
```

3.3 reboot_sys

Reboot system.

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	

Returns

None

Example

Code

```python
from zuss import *

reboot_sys("COM16")
```

Output

```
Receive command: len=14, <REBOOT_SYS{}>

CMD: REBOOT_SYS

Return: [REBOOT_SYS{ok}]

[REBOOT_SYS{ok}]
```

3.4 save_config

Save configuration.

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	

Returns

Save status: bool

Example

Code

```python
from zuss import *

a = save_config("COM16")

print(a)
```

Output

```
Return: [SAVE_CONFIG{ok}]

[SAVE_CONFIG{ok}]

True
```

3.5 clr_config

Clear configuration.

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	

Returns

Clear status:bool

Example

Code

```
from zuss import *

a = clr_config("COM16")

print(a)
```

Output

```
Receive command: len=16, <CLEAR_CONFIG{}>

CMD: CLEAR_CONFIG

Return: [CLEAR_CONFIG{ok}]

[CLEAR_CONFIG{ok}]

True
```

3.6 disp_config

Display current configuration.

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	

Returns

Display result: bool

Example

Code

```
from zuss import *

a = disp_config("COM16")

print(a)
```

Output

```
-------------- ZD - USB SWITCH Current Configuration --------------
  FlashAddr: f000 (60KB)          Size: 116B


  valid_flag : ffffffff
  host_port  :  1
  device_port:  2
  device_power_mask: 1111
  relay_mask: 1111

--------------------------------------------------------------------

True
```

3.7 set_host_port

Set enable host port.

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	
num	integer	The host port number which wants to be enable, range from 1 to 4	Yes	

Returns

Set Enable Host Port result: bool

Example

Code

```python
from zuss import *

a = set_host_port("COM16", 2)

print(a)
```

Output

```
Receive command: len=18, <SET_HOST_PORT{2}>

Port: 2

Return: [SET_HOST_PORT{2}]

[SET_HOST_PORT{2}]

True
```

3.8 get_host_port

Get enable host port.

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	

Returns

Currently Enabled Host Port: int

Example

Code

```python
from zuss import *

a = get_host_port("COM16")

print(a)
```

Output

```
Receive command: len=17, <GET_HOST_PORT{}>

CMD: GET_HOST_PORT

Return: [GET_HOST_PORT{2}]

[GET_HOST_PORT{2}]

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```

3.9 set_dev_port

Set enable device port.

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	
num	integer	The device port number which wants to be enable, range from 1 to 4	Yes	

Returns

Set enable port of Device status: bool

Example

Code

```
from zuss import *

a = set_dev_port("COM16", 3)

print(a)
```

Output

```
Receive command: len=20, <SET_DEVICE_PORT{3}>

Port: 3

Return: [SET_DEVICE_PORT{3}]

[SET_DEVICE_PORT{3}]

True
```

3.10 get_dev_port

Get enable device port

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	

Returns

Currently Enabled Device Port: int

Example

Code

```python
from zuss import *

a = get_dev_port("COM16")

print(a)
```

Output

```
Receive command: len=19, <GET_DEVICE_PORT{}>

CMD: GET_DEVICE_PORT

Return: [GET_DEVICE_PORT{3}]

[GET_DEVICE_PORT{3}]

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```

3.11 set_relay_mask

Set the relay mask.

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	
mask	integer	Mask value of enable relay act, Input range: ● For decimal: 0 to 15 ● For binary: 0b0000 to 0b1111 ● For hexadecimal: 0x0 to 0xf 1: close Relay 0: open Relay	Yes	

Returns

Set the Mask to control the Relays, 4bit Mask value, Bit0 to Bit3 stand for Relay1 to Relay4. : bool

Example

Code

```
from zuss import *
comport = "COM13"

a = set_relay_mask(comport,0xb)
print(a)
```

Output

```
Receive command: len=21, <SET_RELAY_MASK{0xb}>

Mask: 1011

Return: [SET_RELAY_MASK{0xb}]

[SET_RELAY_MASK{0xb}]

True
```

3.12 get_relay_mask

Get the relay mask

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	

Returns

Get the current mask of relays in decimal number: int

Example

Code

```python
from zuss import *
comport = "COM13"

set_relay_mask(comport,0xb)

a = get_relay_mask(comport)

print(a)
```

Output

```
Receive command: len=21, <SET_RELAY_MASK{0xb}>

Mask: 1011

Return: [SET_RELAY_MASK{0xb}]

[SET_RELAY_MASK{0xb}]

Receive command: len=18, <GET_RELAY_MASK{}>

CMD: GET_RELAY_MASKReturn: [GET_RELAY_MASK{0xb}]

[GET_RELAY_MASK{0xb}]

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```

3.13 set_pwr_mask

Set the mask of the device ports enable to power supply

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	
mask	integer	Mask value of enable relay act, Input range: ● For decimal: 0 to 15 ● For binary: 0b0000 to 0b1111 ● For hexadecimal: 0x0 to 0xf 1: power on 0: power off	Yes	

Returns

Set the mask to control the power supply of device ports, 4bit Mask value, Bit0 to Bit3 stand for device port 1 to 4 : bool

Example

Code

```
from zuss import *
comport = "COM13"

a = set_pwr_mask(comport,0xa)

print(a)
```

Output

```
Receive command: len=21, <SET_POWER_MASK{0xa}>

Mask: 1010

Return: [SET_POWER_MASK{0xa}]

[SET_POWER_MASK{0xa}]

True
```

3.14 get_pwr_mask

Get the relay mask

Arguments

Name	Type	Description	Required	Default
serial_num	string	The host port number used by the current connection	Yes	

Returns

Get the current power mask of device ports in decimal number: int

Example

Code

```python
from zuss import *
comport = "COM13"

set_pwr_mask(comport,0xf)

a = get_pwr_mask(comport)

print(a)
```

Output

```
Receive command: len=21, <SET_POWER_MASK{0xf}>

Mask: 1111

Return: [SET_POWER_MASK{0xf}]

[SET_POWER_MASK{0xf}]

Receive command: len=18, <GET_POWER_MASK{}>

CMD: GET_POWER_MASKReturn: [GET_POWER_MASK{0xf}]

[GET_POWER_MASK{0xf}]

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```

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