Device Control

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Online Version

Contents

This topic describes the APIs related to device control, including getting instruction set, specifications, properties, the latest statuses, and sending instructions.

Request method	API	Description
GET	/v1.0/functions/{category}	Get the instruction set by category
GET	/v1.0/devices/{device_id}/functions	Get the instruction set by device
GET	/v1.0/devices/{device_id}/s	Get the device’s specifications and properties (including instruction set and status set)
POST	/v1.0/devices/{device_id}/commands	Send instructions to the device
GET	/v1.0/devices/{device_id}/s	Get the latest device status

1 Get the instruction set by category

1.1 API description

Query the instruction set by category. This instruction set has the biggest amount of instructions in the category of the all-in-one apps, which can be used and referred to by developers. If you are a platform developer, you can develop applications according to this instruction set.

1.2 API address

```
GET /v1.0/functions/{category}
```

1.3 Request parameter

Parameter name	Data type	Parameter type	Required	Description
category	String	URI	Yes	Category name, such as kg, cz, and dj.

1.4 Return parameter

Parameter name	Data type	Description
code	Integer	Error code .
success	Boolean	Determine whether the request succeeded or not.
		true: succeeded
		false: failed

Parameter name	Data type	Description
msg	String	The message returned if the request fails. It will return null if the request succeeds.
result	Object< result >	The returned result.

Description of `result` | Parameter name | Category | Description | | :—| :—| :—| | category| String | Product category | | functions| List<funnctions> | Instruction set |

Description of `functions` | Parameter name | Category | Description | | :—| :—| :—| | code | String | Instruction | | type | String | Instruction type | | values | String | The range of input parameter values | | name | String | Instruction name | | desc | String | Description |

1.5 Request example

```
GET /v1.0/fucntions/kg
```

1.6 SDK example

```
TuyaClient client = new TuyaClient(clientId, secret, RegionEnum.CN);
CategoryFunctions categoryFunctions = client.getFunctionByCategory("
kg");
System.out.println("Get the function list by category: ");
System.out.println(JSONObject.toJSONString(categoryFunctions));
```

1.7 Response example

```
{
    "success": true,
    "t": 1571293457435,
    "result": {
        "category": "kg",
        "functions": [
            {
                "name": "Switch",
                "desc": "The master switch. true: Open all sub switc
hes. false: Close all sub switches",
                "code": "switch",
                "type": "Boolean",
                "values": "{}"
            },
            {
                "name": "Switch 1",
                "desc": "Switch 1",
                "code": "switch_1",
                "type": "Boolean",
                "values": "{}"
            },
            {
                "name": "Switch 2",
                "desc": "Switch 2",
                "code": "switch_2",
                "type": "Boolean",
                "values": "{}"
            },
            {
                "name": "Switch 3",
                "desc": "Switch 3",
                "code": "switch_3",
                "type": "Boolean",
                "values": "{}"
            },
            {
                "name": "Switch 4",
                "desc": "Switch 4",
                "code": "switch_4",
                "type": "Boolean",
                "values": "{}"
            },
            {
                "name": "Switch 5",
                "desc": "Switch 5",
                "code": "switch_5",
                "type": "Boolean",
                "values": "{}"
            },
            {
                "name": "Switch 6",
                "desc": "Switch 6",
                "code": "switch_6",
                "type": "Boolean",
                "values": "{}"
            },
            {
                "name": "The countdown of switch 1",
                "desc": "The countdown of switch 1",
                "code": "countdown_1",
                "type": "Integer",
```

1.8 Error code

The following are common service exceptions for this interface. For more exception errors, see Error Code.

Error code	Description
500	System error
2015	This category is not supported at present

2 Get the instruction set by device

2.1 API description

Query the functions supported by the device. You can send control by the obtained instructions.

2.2 API address

```
GET /v1.0/devices/{device_id}/functions
```

2.3 Request parameter

Parameter name	Data type	Parameter type	Required	Description
device_id	String	URI	Yes	Device ID

2.4 Return parameter

Parameter name	Data type	Description
code	Integer	Error code .
success	Boolean	Determine whether the request succeeded or not.
		true: succeeded
		false: failed
msg	String	The message returned if the request fails. It will return null if the request succeeds.

Parameter name	Data type	Description
result	Object< result >	The returned result.

Description of `result` | Parameter name | Category | Description | | :—| :—| :—| | category| String | Product category | | functions| List<function> | Instruction set |

Description of `functions` | Parameter name | Category | Description | | :—| :—| :—| | code | String | Instruction | | type | String | Instruction type | | values | String | The range of input parameter values | | name | String | Instruction name | | desc | String | Description |

2.5 Request example

```
GET /v1.0/devices/vdevo155XXXX83954683/fucntions
```

2.6 SDK example

```
TuyaClient client = new TuyaClient(clientId, secret, RegionEnum.CN);
categoryFunctions = client.getFunctionsByDevId(DEV_ID);
System.out.println("Get the function list by device ID: ");
System.out.println(JSONObject.toJSONString(categoryFunctions));
```

2.7 Response example

```
{
  "success": true,
  "t": 1571293776551,
  "result": {
    "category": "cz",
    "functions": [
      {
        "name": "Switch",
        "desc": "Switch",
        "code": "switch_1",
        "type": "Boolean",
        "values": "{}"
      },
      {
        "name": "The countdown of switch 1",
        "desc": "The countdown of switch 1",
        "code": "countdown_1",
        "type": "Integer",
        "values": "{\"unit\":\"s\",\"min\":0,\"max\":86400,\"scale\"
:0,\"step\":1}"
      }
    ]
  }
}
```

2.8 Error code

The following are common service exceptions for this interface. For more exception errors, see Error Code.

Error code description	
500	System error
1106	Illegal permission

3 Get the instruction set by devices

3.1 API description

Query the functions supported by the devices List. You can send control by the obtained instructions. support up to 20 devices

3.2 API address

```
GET /v1.0/devices/functions
```

3.3 Request parameter

Parameter name	Data type	Parameter type	Required	Description
device_ids	String	URI	Yes	Devices List

3.4 Return parameter

Parameter name	Data type	Description
code	Integer	Error code .
success	Boolean	Determine whether the request succeeded or not.
		true: succeeded
		false: failed
msg	String	The message returned if the request fails. It will return null if the request succeeds.

Parameter name	Data type	Description
result	Object< result >	The returned result.

Description of `result` | Parameter name | Category | Description | | :—| :—| :—| | category| String | Product category | | functions| List<function> | Instruction set | | devices | List | device Id List |

Description of `functions` | Parameter name | Category | Description | | :—| :—| :—| | code | String | Instruction | | type | String | Instruction type | | values | String | The range of input parameter values | | name | String | Instruction name | | desc | String | Description |

3.5 Request example

```
GET /v1.0/devices/fucntions?device_ids=06200286dc4f22c8418c,6c8beb2f
a517fbc901dtln
```

3.6 SDK example

```
TuyaClient client = new TuyaClient(clientId, secret, RegionEnum.CN);
categoryFunctions = client.getFunctionsByDevsList(DEV_ID);
System.out.println("Get the function list by devices List: ");
System.out.println(JSONObject.toJSONString(categoryFunctions));
```

3.7 Response example

```
{
  "result": [
    {
      "category": "cz",
      "devices": [
        "06200286dc4f22c8418c"
      ],
      "functions": [
        {
          "code": "switch",
          "desc": "开关",
          "name": "开关",
          "type": "Boolean",
          "values": "{}"
        },
        {
          "code": "countdown_1",
          "desc": "开关1倒计时",
          "name": "开关1倒计时",
          "type": "Integer",
          "values": "{\"unit\":\"s\",\"min\":0,\"max\":86400,\"scale
\":0,\"step\":1}"
        }
      ]
    }
  ],
  "success": true,
  "t": 1618822009199
}
```

3.8 Error code

The following are common service exceptions for this interface. For more exception errors, see Error Code.

Error code	description
500	System error
1106	Illegal permission

4 Get the specifications and properties of the device, including the instruction set and status set

4.1 API description

This interface is used to get the instruction set and status set supported by the device according to the device ID.

4.2 API address

```
GET /v1.0/devices/{device_id}/specifications
```

4.3 Request parameter

Parameter name	Data type	Parameter type	Required	Description
device_id	String	URI	Yes	Device ID

4.4 Return parameter

Parameter name	Data type	Description
code	Integer	Error Code .
success	Boolean	Determine whether the request succeeded or not.
		true: succeeded
		false: failed

Parameter name	Data type	Description
msg	String	The message returned if the request fails. It will return null if the request succeeds.
result	Object< result >	The returned result.

Description of `result` | Parameter name | Category | Description | | :—| :—| :—| | category | String | Product category | | functions | List<functions> | Instruction set | | status | List<status> | Status set |

Description of `functions` | Parameter name | Category | Description | | :—- | :—- | :—| | code | String | command | | type | String | Type | | values | String | The range of parameter values |

Description of `status` | Parameter name | Category | Description | | :—| :—| :—| | code | String | status code | | type | String | Type | | values | String | The range of parameter values |

4.5 Request example

```
GET /v1.0/devices/vdevoXXXXXXXXXXXXXX/specifications
```

4.6 SDK example

N/A

4.7 Return parameter

```
{
    "success": true,
    "t": 1571201730542,
    "result": {
        "category": "dj",
        "functions": [
            {
                "code": "switch_led",
                "type": "Boolean",
                "values": "{}"
            },
            {
                "code": "work_mode",
                "type": "Enum",
                "values": "{\"range\":[\"colour\"]}"
            },
            {
                "code": "bright_value",
                "type": "Integer",
                "values": "{\"min\":0,\"scale\":0,\"unit\":\"\",\"ma
x\":255,\"step\":1}"
            },
            {
                "code": "colour_data",
                "type": "Json",
                "values": "{\"h\":{\"min\":1,\"scale\":0,\"unit\":\"
\",\"max\":360,\"step\":1},\"s\":{\"min\":1,\"scale\":0,\"unit\":\"\
",\"max\":255,\"step\":1},\"v\":{\"min\":1,\"scale\":0,\"unit\":\"\"
,\"max\":255,\"step\":1}}"
            }
        ],
        "status": [
            {
                "code": "switch_led",
                "type": "Boolean",
                "values": "{}"
            },
            {
                "code": "work_mode",
                "type": "Enum",
                "values": "{\"range\":[\"colour\"]}"
            },
            {
                "code": "bright_value",
                "type": "Integer",
                "values": "{\"min\":0,\"scale\":0,\"unit\":\"\",\"ma
x\":255,\"step\":1}"
            },
            {
                "code": "colour_data",
                "type": "Json",
                "values": "{\"h\":{\"min\":1,\"scale\":0,\"unit\":\"
\",\"max\":360,\"step\":1},\"s\":{\"min\":1,\"scale\":0,\"unit\":\"\
",\"max\":255,\"step\":1},\"v\":{\"min\":1,\"scale\":0,\"unit\":\"\"
,\"max\":255,\"step\":1}}"
            }
        ]
    }
}
```

5 Send instructions to the device

5.1 API description

This interface is used to send one or more obtained instruction sets. Whether instruction sets can be sent simultaneously depends on the product.

5.2 API address

```
POST /v1.0/devices/{device_id}/commands
```

5.3 Request parameter

Parameter name	Data type	Parameter type	Required	Description
device_id	String	URI	Yes	Device ID
commands	Object	body	Yes	Command set

5.4 Return parameter

Parameter name	Data type	Description
code	Integer	Error code .
success	Boolean	Determine whether the request succeeded or not.
		true: succeeded
		false: failed
msg	String	The message returned if the request fails. It will return null if the request succeeds.

Parameter name	Data type	Description
result	Boolean	Determine whether the request succeeded or not.

5.5 Request example

```
POST /v1.0/devices/vdevo1552XXXX3954683/commands
```

```
{
    "commands":[
        {
            "code":"switch_led",
            "value":true
        },
        {
            "code":"bright",
            "value":30
        }
    ]
}
```

5.6 SDK example

```
TuyaClient client = new TuyaClient(clientId, secret, RegionEnum.CN);
JSONObject temp = new JSONObject();
temp.put("v", 0);
temp.put("s", 1);
temp.put("h", 1);
Command command = new Command("colour_data", temp);
List<Command> list = new ArrayList<Command>(1);
list.add(command);
Boolean isSuccess = client.postDeviceCommand("vdevo155013689282523",
 list);
System.out.println("Send device control instructions: ");
System.out.println(isSuccess);
```

5.7 Response example

```
{
    "success":true,
    "t":1551851043862,
    "result":true
}
```

5.8 Error code

The following are common service exceptions for this interface. For more exception errors, see Error Code.

Error code	Description
500	System error
2008	Instruction not supported. Confirm whether the instruction or value is correct

6 Get the latest device status

6.1 API description

Get the latest device status by the device ID

6.2 API address

```
GET /v1.0/devices/{device_id}/status
```

6.3 Request parameter

Parameter name	Data type	Parameter type	Required	Description
device_id	String	URI	Yes	Device ID

6.4 Return parameter

Parameter name	Data type	Description
code	Integer	Error code .
success	Boolean	Determine whether the request succeeded or not.
		true: succeeded
		false: failed
msg	String	The message returned if the request fails. It will return null if the request succeeds.

Parameter name	Data type	Description
result	Boolean	Determine whether the request succeeded or not.

6.5 Request example

```
GET /v1.0/devices/{device_id}/status
```

6.6 SDK example

```
TuyaClient client = new TuyaClient(clientId, secret, RegionEnum.CN);
List<Status> deviceStatus= client.getDeviceStatus(DEV_ID);
System.out.println("Get device status: ");
System.out.println(JSONObject.toJSONString(deviceStatus));
```

6.7 Response example

```
{
      "success": true,
      "t": 1545447665981,
      "result": [
          {
              "code": "switch_led",
              "value": true
          },
          {
              "code": "work_mode",
              "value": "scene_2"
          },
          {
              "code": "bright_value",
              "value": 25
          },
          {
              "code": "temp_value",
              "value": 0
          },
          {
              "code": "colour_data",
              "value": "{\"h\":37.0,\"s\":255.0,\"v\":189.0}"
          },
          {
              "code": "scene_data",
              "value": ""
          },
          {
              "code": "flash_scene_1",
              "value": ""
          },
          {
              "code": "flash_scene_2",
              "value": ""
          },
          {
              "code": "flash_scene_3",
              "value": ""
          },
          {
              "code": "flash_scene_4",
              "value": "{\"bright\":255,\"frequency\":80,\"hsv\":[{\
"h\":0.0,\"s\":255.0,\"v\":255.0},{\"h\":120.0,\"s\":255.0,\"v\":255
.0},{\"h\":240.0,\"s\":255.0,\"v\":255.0},{\"h\":300.0,\"s\":255.0,\
"v\":255.0},{\"h\":240.0,\"s\":255.0,\"v\":255.0},{\"h\":0.0,\"s\":2
55.0,\"v\":255.0}],\"temperature\":255}"
          }
      ]
  }
```

6.8 Error code

The following are common service exceptions for this interface. For more exception errors, see Error Code.

Error code	Description
500	System error