# **SIP HTTP GET commands**

Can be used to control SIP using HTTP GET requests

# 1. Change controller values (password required if enabled) [Keyword /cv]:

# Command: /cv?pw=xxx{&rsn=x}{&rbt=x}{&en=x}{&mm=x}{&rd=x}

**Note:** { } means the parameter is optional: if the parameter is not present, the corresponding value will not be changed. The actual command should not contain the brackets.

### Parameters:

- pw: password (if enabled in options)
- **rsn:** reset all stations (binary value)
- **rbt:** reboot controller (binary value)
- **en:** operation enable (binary value), when disabled, all stations will remain closed until the controller operation is enabled again.
- mm: manual mode (binary value)
- rd: rain delay time in hours (a value of 0 turns off rain delay)

### **Examples:**

http://x.x.x.x/cv?pw=opendoor&rbt=1 (reboot controller) http://x.x.x.x/cv?pw=opendoor&mm=1 (switch controller to manual mode) http://x.x.x.x/cv?pw=opendoor&rd=24 (set 24 hours rain delay time)

# 2. Get station bits [Keyword /sn]:

# Command: /sn{?sid=x}

Note: { } means the parameter is optional. The actual command should not contain the brackets.

This will return an html webpage that contains a binary value or string that reflects the station status.

# Parameters:

- sn: returns a list of all stations
- **sid=x:** "x" is the positive station ID (starts from 1).

# Examples:

http://x.x.x.x/sn (returns the binary status of every station in a string) http://x.x.x.x/sn?sid=1 (returns the binary status of the first station)

# 3. Set station bits (turn a station on or off) [Keyword /sn]:

#### Command: /sn?sid=x&set\_to=x

**Note:** setting station bits only works when the controller is in manual mode (mm=1), in order to avoid interfering with the normal program mode. A network error will be raised if this is run in Auto mode.

# Parameters:

- sid=x is the positive station index (starts from 1). For example, sid=1 is the first station,
- set\_to=x, The parameter "x" is a binary value: 1 to turn the station on, 0 to turn the station off.

# Examples:

<u>http://x.x.x/sn?sid=1&set\_to=1</u> (turn on the first station) <u>http://x.x.x.x/sn?sid=3&</u>set\_to=0 (turn off the third station)

# 4. Change station names and master operation bits (password required if enabled) [Keyword /cs]:

Command: /cs?pw=xxx{&s0=xxx}{&s1=xxx}{&s2=xxx}.....{&m0=xxx}{&m1=xxx} Note: { } means the parameter is optional: if the parameter is not present, the corresponding stations name will not be changed. The actual command should not contain the brackets.

# Parameters:

- pw: password (if enabled in options)
- s?: ? is station index (starts from 0, up to N-1 where N is the total number of stations). s0 is the first station, s1 is the second stations, and so on. Parameter value is a string up to 12 characters.
- m?: ? is the board index (starts from 0, up to M-1 where M is the total number of boards). m0 is the master controller, m1 is the first extension board, and so on.
  Parameter value is an integer that stores the master operation bit of each station on that board. For example, a value of 255 means all eight stations will activate the master value; and a value of 127 means the first four stations will activate the master value while the other four stations do not.

### **Examples:**

http://x.x.x.x/cs?pw=opendoor&s0=front%20lawn&s1=back%lawn (sets first two stations names)

http://x.x.x.x/cs?pw=opendoor&m0=255 (sets the master operation bits for the master/ first controller board)

http://x.x.x.x/cs?pw=opendoor&s7=garage&m0=254 (sets stations name of s7 and the master operation bits for the master/first controller board)

# 5. Change run-once program (password required if enabled) [Keyword /cr]:

# Command: /cr?pw=xxx&t=[xx,xx,xx,xx,...]

**Note:** if the command is successful, the controller will start executing the run-once program immediately. The normal program mode will be temporarily interrupted until the run-once program is completed.

# Parameters:

- **pw:** password (if enabled in options)
- t: an integer array (surrounded by []) that stores the run-time (in seconds) of each station. Note that the array size must be equal to the total number of stations. If a station is not scheduled to run, use value of 0.

# Examples:

http://x.x.x.x/cr?pw=opendoor&t=[60,0,60,0,60,0,60,0] (start a run-once program that turns on stations 1, 3, 5 and 7 for 1 minute each.

# 6. Change (add/modify) programs (password required if enabled) [Keyword /cp]:

Command: /cp?pw=xxx&pid=x&v={"stop\_min": xxx, "start\_min": xxx, "enabled": x, "interval\_base\_day": x, "day\_mask": xxx, "duration\_sec": [xx], "station\_mask": [x], "type": "xxxx", "cycle\_min": x, "name": "xxxxx"}

### Parameters:

- pw: password (if enabled in options).
- **pid:** program index (starting from 0). For example, 0 means the first program, and so on. Must be less than the total number of programs. A value of -1 will add a new program.
- v: program values, consisting of 10 key value pairs enclosed in curly brackets:
  - "stop\_min": Number of minutes past midnight for program end.
  - "start\_min": Number of minutes past midnight for program start.
  - $\circ$  "enabled": Boolean, Use 1 or 0
  - "interval\_base\_day": based on days since epoch. Used in interval type
  - "name": Program name
  - "day\_mask": Byte with bits set for days program is to run.
  - "duration\_sec": List containing Number of seconds program will run.
  - "station\_mask": Byte with bits set for stations in program
  - ""type": 'alldays" | 'evendays' | 'odddays' | 'interval'
  - "cycle\_min:: Number of minutes between repeat cycles, 0 for no repeeat.

### Example:

http://x.x.x.x/cp?pid=-1&v={"type":"alldays","enabled":1,"day\_mask":127,"interval\_base\_day":0, "start\_min":360,"stop\_min":360.25,"cycle\_min":0,"duration\_sec": [15],"name":"Unnamed","station\_mask":[17]}

# 7. Delete a program (password required if enabled) [Keyword /dp]:

Command: /dp?pw=xxx&pid=x

#### Parameters:

- **pw:** password (if enabled in options)
- **pid:** program index (starting from 0). For example, 0 means the first program, and so on. Must be less than the total number of programs. A value of -1 will delete all programs.

#### **Examples:**

http://x.x.x.x/dp?pw=opendoor&pid=2 delete the third program http://x.x.x.x/dp?pw=opendoor&pid=-1 delete all programs

# 8. Run a program (password required if enabled) [Keyword /rp]:

### Command: /rp?pw=xxx&pid=x

### Parameters:

- **pw:** password (if enabled in options)
- **pid:** program index (starting from 0). For example, 0 means the first program, and so on. Must be less than the total number of programs.

### Example:

http://x.x.x.x/rp?pw=opendoor&pid=2 run the third program

# 9. Enable or disable a program (password required if enabled) [Keyword /ep]:

Command: /ep?pw=xxx&pid=x&enable=x

### Parameters:

- **pw:** password (if enabled in options)
- **pid:** program index (starting from 0). For example, 0 means the first program, and so on. Must be less than the total number of programs..
- enable: boolean (0 or 1), 1 to enable the program, 0 to disable.

#### **Example:**

http://x.x.x.x/ep?pw=opendoor&pid=2&enable=1 enable the third program http://x.x.x.x/ep?pw=opendoor&pid=0&enable=0 disable the first program

# 10. Change options (password required if enabled) [Keyword /co]:

# Command: /co?pw=xxx{&o\*=xx}{&loc=xxx}{&npw=xxx}{&cpw=xxx}

**Note:** { } means the parameter is optional: if the parameter is not present, the corresponding option value will not be changed. The actual command should not contain the brackets. Also be careful with the option values marked below as **boolean**: these options are set (to 1) as long as the option name exists in the parameter list, and cleared (to 0) if the name doesn't exist.

Warning: this command is currently quite messy and requires knowing the option index.

#### **Parameters:**

- **pw:** password (if enabled in options)
- npw: new password (if changing the password)
- **cpw:** confirm new password (if changing the password)
- **loc:** location (zip code, city name or geographic coordinates)
- otz: time zone: (floating point time zone value + 12) x 4. e.g. GMT-5:00 will be (-5+12) \*4=28, GMT+8:15 will be (8 1/4+12)\*4 = 81
- ohtp: http port
- onbrd: number of extension boards
- oidd: individual duration
- **osdt:** station delay time (in seconds). must be between 0 and 240. e.g. 15 means a 15 seconds delay between two consecutive stations.
- **omas:** master station index (0 means no master station, 1 means station 1 is the master station, and so on)
- **omton:** master on delay time (in seconds). must be between 0 and 60. e.g. 5 means the master station will turn on 5 seconds after a station opens.

- **omtoff:** master off delay time (in seconds). must be between -60 and +60. e.g. -5 means the master station will turn off 5 seconds before a station closes.
- **ours:** use rain sensor (**boolean**). option is set if the name exists in the parameter list, regardless of the value; cleared if the name does not exist.
- **orst:** rain sensor type (**boolean**. 1 means normally open). option is set if the name exists in the parameter list, regardless of the value; cleared if the name does not exist.
- **owl:** water level in percentage (from 0 to 250). e.g. 150 means water time will increase to 150%.
- **oupas:** use password (**boolean**. 1 means use password). option is set if the name exists in the parameter list, regardless of the value; cleared if the name does not exist.

# Example:

http://x.x.x.x/co?pw=opendoor&npw=1234&cpw=1234 (change password to 1234) http://x.x.x.x/co?pw=1234&loc=10001 (change location to zip 10001) http://x.x.x.x/co?pw=1234&ohtp=8080 (change http port to 8080: 31\*256+144) http://x.x.x.x/co?pw=1234&ours=on&oupas=on (rain sensor and use password options are set, rain sensor type is cleared, i.e. normally closed)