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Access Control API

API for access control, which can manage access authority by individual, group, time schedules.

- [BS2_GetAccessGroup](#): Retrieves selected access groups.
- [BS2_GetAllAccessGroup](#): Retrieves all access groups.
- [BS2_SetAccessGroup](#): Configures an access group.
- [BS2_RemoveAccessGroup](#): Removes selected access groups.
- [BS2_RemoveAllAccessGroup](#): Removes all access groups.
- [BS2_GetAccessLevel](#): Retrieves selected access levels.
- [BS2_GetAllAccessLevel](#): Retrieves all access levels.
- [BS2_SetAccessLevel](#): Configures an access level.
- [BS2_RemoveAccessLevel](#): Removes selected access levels.
- [BS2_RemoveAllAccessLevel](#): Removes all access levels.
- [BS2_GetAccessSchedule](#): Retrieves selected time schedules.
- [BS2_GetAllAccessSchedule](#): Retrieves all time schedules.
- [BS2_SetAccessSchedule](#): Configures a time schedule.
- [BS2_RemoveAccessSchedule](#): Removes selected time schedules.
- [BS2_RemoveAllAccessSchedule](#): Removes all time schedules.
- [BS2_GetHolidayGroup](#): Retrieves selected holiday groups.
- [BS2_GetAllHolidayGroup](#): Retrieves all holiday groups.
- [BS2_SetHolidayGroup](#): Configures a holiday group.
- [BS2_RemoveHolidayGroup](#): Removes selected holiday groups.
- [BS2_RemoveAllHolidayGroup](#): Removes all holiday groups.

Structure

BS2AccessGroup

```
typedef struct {
    uint32_t id;
    char name[BS2_MAX_ACCESS_GROUP_NAME_LEN];
    uint8_t numAccessLevels;
    uint8_t reserved[3];
    uint32_t accessLevels[BS2_MAX_ACCESS_LEVEL_PER_ACCESS_GROUP];
} BS2AccessGroup;
```

1. *id*

Access group ID.

2. *name*

Name of the access group that will be displayed on the BioStar application.

3. *numAccessLevels*

Number of access levels that belongs to an access group.

4. *reserved*

Reserved space.

5. *accessLevels*

List of access levels that belongs to an access group.

BS2DoorSchedule

```
typedef struct {
    uint32_t doorID;
    uint32_t scheduleID;
} BS2DoorSchedule ;
```

1. *doorID*

Door ID.

2. *scheduleID*

Schedule ID.

BS2AccessLevel

```
typedef struct {
    uint32_t id;
    char name[BS2_MAX_ACCESS_GROUP_NAME_LEN];
    uint8_t numDoorSchedules;
    uint8_t reserved[3];
    BS2DoorSchedule doorSchedules[BS2_MAX_ACCESS_LEVEL_PER_ACCESS_GROUP];
} BS2AccessLevel;
```

1. *id*

Access level ID. The ID should be a number less than 32768(0x7FFF).

This is due to a limitation where this ID needs to be shared with floor levels for lift control.

2. *name*

Name of the access level that will be displayed on the BioStar application.

3. *numDoorSchedules*

Number of schedules allocated to a door that belongs to an access level.

4. *reserved*

Reserved space.

5. *doorSchedules*

List of schedules allocated to a door that belongs to an access level.

BS2TimePeriod

```
typedef struct {
```

```
    int16_t startTime;  
    int16_t endTime;  
} BS2TimePeriod;
```

1. *startTime*

Starting time of the time period. The unit of the value is minutes.

2. *endTime*

Ending time of the time period. The unit of the value is minutes.

BS2DaySchedule

```
typedef struct {  
    uint8_t numPeriods;  
    uint8_t reserved[3];  
    BS2TimePeriod periods[BS2_MAX_TIME_PERIODS_PER_DAY];  
} BS2DaySchedule;
```

1. *numPeriods*

Number of time periods.

2. *reserved*

Reserved space.

3. *periods*

List of time periods, which can be configured up to 5 time periods.

BS2WeeklySchedule

```
typedef struct {  
    BS2DaySchedule schedule[BS2_NUM_WEEKDAYS];  
} BS2WeeklySchedule;
```

1. *schedule*

Weekly schedule that has total 7 daily schedules.

BS2DailySchedule

```
typedef struct {  
    uint32_t startDate;  
    uint8_t numDays;  
    uint8_t reserved[3];  
    BS2DaySchedule schedule[BS2_MAX_DAYS_PER_DAILY_SCHEDULE];  
} BS2DailySchedule;
```

1. *startDate*

Starting date of the schedule.

2. *numDays*

Number of the daily schedule.

3. *reserved*

Reserved space.

4. *schedule*

List of daily schedules starting from the *startDate*.

BS2HolidaySchedule

```
typedef struct {
    uint32_t id;
    BS2DaySchedule schedule;
} BS2HolidaySchedule;
```

1. *startDate*

Holiday schedule ID.

2. *schedule*

Holiday daily schedule.

BS2Schedule

```
typedef struct
{
    uint32_t id;
    char name[BS2_MAX_SCHEDULE_NAME_LEN];
    uint8_t isDaily;
    uint8_t numHolidaySchedules;
    uint8_t reserved[2];
    union
    {
        BS2WeeklySchedule weekly;
        BS2DailySchedule daily;
    }schedule;
    BS2HolidaySchedule
    holidaySchedules[BS2_MAX_HOLIDAY_GROUPS_PER_SCHEDULE];
}BS2Schedule;
```

1. *id*

Schedule ID.

CAUTION

You should avoid using 1 as the schedule ID. Schedule ID 1 is recognized as 'Always' for every device.

2. *name*

Name of the schedule that will be displayed on the BioStar application.

3. *isDaily*

Decides whether it's a daily schedule or a weekly schedule.

4. *numHolidaySchedules*

Number of holiday schedules.

5. *reserved*

Reserved space.

6. *weekly*

Weekly schedule. This will be valid only when *isDaily* is set to 0.

7. *daily*

Daily schedule. This will be valid when *isDaily* has a value rather than 0.

8. *holidaySchedules*

List of holiday schedules.

BS2Holiday

```
typedef struct {
    uint32_t date;
    uint8_t recurrence;
} BS2Holiday;
```

1. *date*

Date of the holiday.

2. *recurrence*

The value of repetition.

Value	Description
0	Does not repeat
1	Repeat yearly
2	Repeat monthly
3	Repeat weekly

BS2HolidayGroup

```
typedef struct
{
    uint32_t id;
    char name[BS2_MAX_SCHEDULE_NAME_LEN];
    uint8_t numHolidays;
    uint8_t reserved[3];
    BS2Holiday holidays[BS2_MAX_HOLIDAYS_PER_GROUP];
};
```

```
}BS2HolidayGroup;
```

1. *id*
Holiday group ID.
2. *name*
Name of the holiday group that will be displayed on the BioStar application.
3. *numHolidays*
Number of holidays.
4. *reserved*
Reserved space.
5. *holidays*
List of holidays.

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