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Zone Control API

4

가 , . 가 (,)

- | | | |
|--|---|---|
| • BS2_GetAntiPassbackZone: | 가 | . |
| • BS2_GetAllAntiPassbackZone: | 가 | . |
| • BS2_GetAntiPassbackZoneStatus: | | 가 |
| • BS2_GetAllAntiPassbackZoneStatus: | | 가 |
| • BS2_SetAntiPassbackZone: | . | |
| • BS2_SetAntiPassbackZoneAlarm: | | . |
| • BS2_RemoveAntiPassbackZone: | | . |
| • BS2_RemoveAllAntiPassbackZone: | | . |
| • BS2_ClearAntiPassbackZoneStatus: | | . |
| • BS2_ClearAllAntiPassbackZoneStatus: | | . |
| • BS2_SetCheckGlobalAPBViolationHandler: | 가 | . |
| • BS2_CheckGlobalAPBViolation: | | . |

가 $(\frac{1}{2}, \frac{1}{2})$ 가 $(\frac{1}{2}, \frac{1}{2})$.

- [BS2_GetTimedAntiPassbackZone:](#) 가 .
- [BS2_GetAllTimedAntiPassbackZone:](#) 가 .
- [BS2_GetTimedAntiPassbackZoneStatus:](#) 가 .
- [BS2_GetAllTimedAntiPassbackZoneStatus:](#) 가 .
- [BS2_SetTimedAntiPassbackZone:](#) .
- [BS2_SetTimedAntiPassbackZoneAlarm:](#) .
- [BS2_RemoveTimedAntiPassbackZone:](#) .
- [BS2_RemoveAllTimedAntiPassbackZone:](#) .
- [BS2_ClearTimedAntiPassbackZoneStatus:](#) .
- [BS2_ClearAllTimedAntiPassbackZoneStatus:](#) .

가 BioStar

BioStar

- [BS2_GetFireAlarmZone:](#)
- [BS2_GetAllFireAlarmZone:](#)
- [BS2_GetFireAlarmZoneStatus:](#)
- [BS2_GetAllFireAlarmZoneStatus:](#)
- [BS2_SetFireAlarmZone:](#)
- [BS2_SetFireAlarmZoneAlarm:](#)
- [BS2_RemoveFireAlarmZone:](#)
- [BS2_RemoveAllFireAlarmZone:](#)

가

가

가

가

/

/

- [BS2_GetScheduledLockUnlockZone:](#)
- [BS2_GetAllScheduledLockUnlockZone:](#)
- [BS2_GetScheduledLockUnlockZoneStatus:](#)
- [BS2_GetAllScheduledLockUnlockZoneStatus:](#)
- [BS2_SetScheduledLockUnlockZone:](#)
- [BS2_SetScheduledLockUnlockZoneAlarm:](#)
- [BS2_RemoveScheduledLockUnlockZone:](#)
- [BS2_RemoveAllScheduledLockUnlockZone:](#)

/

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가

가

가

가

가 BioStar

가

BioStar

- [BS2_GetIntrusionAlarmZone:](#)
- [BS2_GetIntrusionAlarmZoneStatus:](#)
- [BS2_GetAllIntrusionAlarmZoneStatus:](#)
- [BS2_SetIntrusionAlarmZone:](#)
- [BS2_SetIntrusionAlarmZoneAlarm:](#)
- [BS2_RemoveIntrusionAlarmZone:](#)
- [BS2_RemoveAllIntrusionAlarmZone:](#)
- [BS2_SetIntrusionAlarmZoneArm:](#)

가

가

가

/

[CoreStation]

CoreStation

- [BS2_GetInterlockZone:](#)가
- [BS2_GetInterlockZoneStatus:](#)가
- [BS2_GetAllInterlockZoneStatus:](#)가
- [BS2_SetInterlockZone:](#)
- [BS2_SetInterlockZoneAlarm:](#)
- [BS2_RemoveInterlockZone:](#)
- [BS2_RemoveAllInterlockZone:](#)

Ethernet

Zone Master BioStar V2.x 가 Zone 가 (Master ↔ Member)
Ethernet TCP 1.x Entrance Limit, Fire Alarm Zone

- [BS2_GetDeviceZone:](#) Ethernet 가
- [BS2_GetAllDeviceZone:](#) Ethernet 가
- [BS2_SetDeviceZone:](#) Ethernet
- [BS2_RemoveDeviceZone:](#) Ethernet
- [BS2_RemoveAllDeviceZone:](#) Ethernet
- [BS2_SetDeviceZoneAlarm:](#) Ethernet
- [BS2_ClearDeviceZoneAccessRecord:](#) Ethernet
- [BS2_ClearAllDeviceZoneAccessRecord:](#) Ethernet
- [BS2_GetAccessGroupEntranceLimit:](#) 가
- [BS2_GetAllAccessGroupEntranceLimit:](#) 가
- [BS2_SetAccessGroupEntranceLimit:](#)
- [BS2_RemoveAccessGroupEntranceLimit:](#)
- [BS2_RemoveAllAccessGroupEntranceLimit:](#)
- [BS2_GetDeviceZoneAGEntranceLimit:](#) Ethernet Access Group 가
- [BS2_GetAllDeviceZoneAGEntranceLimit:](#) Ethernet Access Group 가
- [BS2_SetDeviceZoneAGEntranceLimit:](#) Ethernet Access Group
- [BS2_RemoveDeviceZoneAGEntranceLimit:](#) Ethernet Access Group
- [BS2_RemoveAllDeviceZoneAGEntranceLimit:](#) Ethernet Access Group

OnCheckGlobalAPBViolation

가

```
typedef void (*OnCheckGlobalAPBViolation)(uint32_t deviceId, uint16_t seq,
const char* userID_1, const char* userID_2, bool isDualAuth);
```

1. *deviceId*

2. *seq*

3. *userID_1*
ID

4. *userID_2*
ID

5. *isDualAuth*

BS2ZoneStatus

```
typedef struct {
    uint32_t id;
    uint8_t status;
    uint8_t disabled;
    uint8_t reserved[6];
} BS2ZoneStatus;
```

1. *id*

2. *status*

0	
1	

2	scheduled lock
4	scheduled unlock

3. *disabled*

flag .

4. *reserved*

.

BS2ApbMember

```
typedef struct {
    uint32_t deviceID;
    uint8_t type;
    uint8_t reserved[3];
} BS2ApbMember;
```

1. *deviceID*

.

2. *type*

APB reader .

-1	
0	
1	

3. *reserved*

.

BS2TimedApbMember

```
typedef struct {
    uint32_t deviceID;
    uint8_t reserved[4];
} BS2TimedApbMember;
```

1. *deviceID*

.

2. *reserved*

.

BS2FireSensor

```
typedef struct {
    uint32_t deviceId;
    uint8_t port;
    uint8_t switchType;
    uint8_t duration;
} BS2FireSensor ;
```

1. *deviceId*

2. *port*

3. *switchType*

0	
1	

4. *duration* millisecond

BS2AntiPassbackZone

```
typedef struct {
    uint32_t zoneID;
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint8_t type;
    uint8_t numReaders;
    uint8_t numBypassGroups;
    uint8_t disabled;
    uint8_t alarmed;
    uint8_t reserved[3];
    uint32_t resetDuration;
    BS2Action alarm[BS2_MAX_APB_ALARM_ACTION];
    BS2ApbMember readers[BS2_MAX_READERS_PER_APB_ZONE];
    uint8_t reserved2[512];
    uint32_t bypassGroupIDs[BS2_MAX_BYPASS_GROUPS_PER_APB_ZONE];
} BS2AntiPassbackZone;
```

1. *zoneID*

1 가

가

2. *name*
BioStar

3. *type*

0	Hard APB(가)
1	Soft APB()

4. *numReaders*
APB reader

5. *numBypassGroups*
APB

6. *disabled*
flag

7. *alarmed*

8. *reserved*

9. *resetDuration*
가 APB
0, BioStar

10. *alarm*
가 APB5

11. *readers*
64

12. *reserved2*

13. *bypassGroupIDs*
APB16

BS2TimedAntiPassbackZone

```
typedef struct {  
    uint32_t zoneID;
```

```
char name[BS2_MAX_ZONE_NAME_LEN];
uint8_t type;
uint8_t numReaders;
uint8_t numBypassGroups;
uint8_t disabled;
uint8_t alarmed;
uint8_t reserved[3];
uint32_t resetDuration;
BS2Action alarm[BS2_MAX_TIMED_APB_ALARM_ACTION];
BS2TimedApbMember readers[BS2_MAX_READERS_PER_TIMED_APB_ZONE];
uint8_t reserved2[320];
uint32_t bypassGroupIDs[BS2_MAX_BYPASS_GROUPS_PER_TIMED_APB_ZONE];
} BS2TimedAntiPassbackZone;
```

1. zoneID

1가.
2. name

BioStar.
3. type

.

0	Hard APB(가)
1	Soft APB()
4. numReaders

reader.
5. numBypassGroups

.
6. disabled

flag.
7. alarmed

.
8. reserved

.
9. resetDuration

가, 0, BioStar.
10. alarm

가5.
11. readers

.

	64	
12. <i>reserved2</i>		
13. <i>bypassGroupIDs</i>	16	

BS2FireAlarmZone

```
typedef struct {
    uint32_t zoneID;
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint8_t numSensors;
    uint8_t numDoors;
    uint8_t disabled;
    uint8_t alarmed;
    uint8_t reserved[8];
    BS2FireSensor sensor[BS2_MAX_FIRE_SENSORS_PER_FIRE_ALARM_ZONE];
    BS2Action alarm[BS2_MAX_FIRE_ALARM_ACTION];
    uint8_t reserved2[32];
    uint32_t doorIDs[BS2_MAX_DOORS_PER_FIRE_ALARM_ZONE];
} BS2FireAlarmZone;
```

1. <i>zoneID</i>	1	가	
2. <i>name</i>			
BioStar			
3. <i>numSensors</i>			
4. <i>numDoors</i>			
5. <i>alarmed</i>			
6. <i>disabled</i>	flag		
7. <i>reserved</i>			
8. <i>sensor</i>		8	
9. <i>alarm</i>	5		

10. *reserved2*

11. *doorIDs*

32

BS2ScheduledLockUnlockZone

```
typedef struct {
    uint32_t zoneID;
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint32_t lockScheduleID;
    uint32_t unlockScheduleID;
    uint8_t numDoors;
    uint8_t numBypassGroups;
    uint8_t numUnlockGroups;
    uint8_t bidirectionalLock;
    uint8_t disabled;
    uint8_t alarmed;
    uint8_t reserved[6];
    BS2Action alarm[BS2_MAX_SCHEDULED_LOCK_UNLOCK_ALARM_ACTION];
    uint8_t reserved2[32];
    uint32_t doorIDs[BS2_MAX_DOORS_IN_SCHEDULED_LOCK_UNLOCK_ZONE];
    uint32_t
bypassGroupIDs[BS2_MAX_BYPASS_GROUPS_IN_SCHEDULED_LOCK_UNLOCK_ZONE];
    uint32_t
unlockGroupIDs[BS2_MAX_UNLOCK_GROUPS_IN_SCHEDULED_LOCK_UNLOCK_ZONE];
} BS2ScheduledLockUnlockZone;
```

1. *zoneID*

1

가

2. *name*

BioStar

3. *lockScheduleID*

4. *unlockScheduleID*

5. *numDoors*

6. *numBypassGroups*

7. *numUnlockGroups*

가

8. *bidirectionalLock*

9. disabled	flag	.
10. alarmed		.
11. reserved		.
12. alarm	5	.
13. reserved2		.
14. doorIDs	32	.
15. bypassGroupIDs		16
16. unlockGroupIDs	가	.
16		.

BS2IntrusionAlarmZone

```
typedef struct {
    uint32_t zoneID;
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint8_t armDelay;
    uint8_t alarmDelay;
    uint8_t disabled;
    uint8_t reserved[1];
    uint8_t numReaders;
    uint8_t numInputs;
    uint8_t numOutputs;
    uint8_t numCards;
    uint8_t numDoors;
    uint8_t numGroups;
    uint8_t reserved2[10];
} BS2IntrusionAlarmZone;
```

1. zoneID	1	가	.
2. name			.
BioStar			.
3. armDelay			.

4. *alarmDelay*
5. *disabled*
flag
6. *reserved[1]*
7. *numReaders*
8. *numInputs*
9. *numOutputs*
10. *numCards*
11. *numDoors*
12. *numGroups*
13. *reserved*

BS2IntrusionAlarmZoneBlob

```
typedef struct {  
    BS2IntrusionAlarmZone IntrusionAlarmZone;  
    BS2AlarmZoneMember* memberObjs;  
    BS2AlarmZoneInput* inputObjs;  
    BS2AlarmZoneOutput* outputObjs;  
    BS2CSNCard* cardObjs;  
    BS2_D00R_ID* doorIDs;  
    BS2_ACCESS_GROUP_ID* groupIDs;  
} BS2IntrusionAlarmZoneBlob;
```

1. *IntrusionAlarmZone*
2. *memberObjs*
3. *inputObjs*

IntrusionAlarmZone.numReaders

	IntrusionAlarmZone.numInputs
4. <i>outputObjs</i>	IntrusionAlarmZone.numOutputs
5. <i>cardObjs</i>	IntrusionAlarmZone.numCards
	Smartcard API
6. <i>doorIDs</i>	IntrusionAlarmZone.numDoors
7. <i>groupIDs</i>	
IntrusionAlarmZone.numGroups	

BS2InterlockZone

```
typedef struct {
    uint32_t zoneID;
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint8_t disabled;
    uint8_t numInputs;
    uint8_t numOutputs;
    uint8_t numDoors;
    uint8_t reserved[8];
} BS2InterlockZone;
```

1. <i>zoneID</i>	1	가
2. <i>name</i>		
BioStar		
3. <i>disabled</i>	flag	
4. <i>numInputs</i>		
5. <i>numOutputs</i>		
6. <i>numDoors</i>		
7. <i>reserved</i>		

BS2InterlockZoneBlob

```
typedef struct {
    BS2InterlockZone InterlockZone;
    BS2InterlockZoneInput* inputObjs;
    BS2InterlockZoneOutput* outputObjs;
    BS2_D00R_ID* doorIDs;
} BS2InterlockZoneBlob;
```

1. *InterlockZone*

2. *inputObjs*

InterlockZone.numInputs

3. *outputObjs*

InterlockZone.numOutputs

4. *doorIDs*

InterlockZone.numDoors

BS2DeviceZoneEntranceLimitMaster

```
typedef struct {
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint8_t type;
    uint8_t reserved1[3];
    uint32_t entryLimitInterval_s;
    uint8_t numEntranceLimit;
    uint8_t numReaders;
    uint8_t numAlarm;
    uint8_t numBypassGroups;
    uint8_t maxEntry[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
    uint32_t periodStart_s[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
    uint32_t periodEnd_s[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
    BS2DeviceZoneEntranceLimitMemberInfo
    readers[BS2_MAX_READERS_PER_DEVICE_ZONE_ENTRANCE_LIMIT];
    BS2Action alarm[BS2_MAX_DEVICE_ZONE_ENTRANCE_LIMIT_ALARM_ACTION];
    BS2_ACCESS_GROUP_ID
    bypassGroupIDs[BS2_MAX_BYPASS_GROUPS_PER_DEVICE_ZONE_ENTRANCE_LIMIT];
    uint8_t reserved3[8 * 4];
} BS2DeviceZoneEntranceLimitMaster;
```

1. *name*

BioStar

2. type

1	Soft EntranceLimit(가)
2	Hard EntranceLimit()

3. reserved1[3]

4. entryLimitInterval_s

5. numEntranceLimit

6. numReaders
reader

7. numAlarm

8. numBypassGroups

9. maxEntry

10. periodStart_s
가 ()

11. periodEnd_s
가 ()

12. readers
64

13. alarm
5

14. bypassGroupIDs
16

15. reserved3

BS2DeviceZoneEntranceLimitMember

```
typedef struct {  
    uint16_t masterPort;
```

```
BS2_DEVICE_ZONE_ENTRANCE_LIMIT_DISCONNECTED_ACTION_TYPE
actionInDisconnect;
    uint8_t reserved1[1];
    BS2_IPV4_ADDR masterIP;
} BS2DeviceZoneEntranceLimitMember;
```

master port .

Disconnect

1	Soft EntranceLimit Disconnected action(가
2	Hard EntranceLimit Disconnected action(

master IP .

BS2DeviceZoneFireAlarmMaster

```
typedef struct {
    char name[BS2_MAX_ZONE_NAME_LEN];
    uint8_t numReaders;
    uint8_t numAlarm;
    uint8_t reserved1[2];
    BS2DeviceZoneFireAlarmMemberInfo
readers[BS2_MAX_READERS_PER_DEVICE_ZONE_FIRE_ALARM];
    BS2Action alarm[BS2_MAX_DEVICE_ZONE_FIRE_ALARM_ALARM_ACTION];
    uint8_t reserved2[8 * 40];
} BS2DeviceZoneFireAlarmMaster;
```

BioStar

5. <i>alarm</i>	5
6. <i>reserved2</i>	

BS2DeviceZoneFireAlarmMember

```
typedef struct {
    BS2_PORT masterPort;
    uint8_t reserved1[2];
    BS2_IPV4_ADDR masterIP;
    uint8_t numSensors;
    uint8_t numDoors;
    uint8_t reserved2[2];
    BS2DeviceZoneFireSensor
sensor[BS2_MAX_FIRE_SENSORS_PER_DEVICE_ZONE_FIRE_ALARM_MEMBER];
    union {
        BS2_D00R_ID
doorIDs[BS2_MAX_DOORS_PER_DEVICE_ZONE_FIRE_ALARM_MEMBER];
        BS2_LIFT_ID
liftIDs[BS2_MAX_DOORS_PER_DEVICE_ZONE_FIRE_ALARM_MEMBER];
    };
} BS2DeviceZoneFireAlarmMember;
```

1. <i>masterPort</i>			
master	port		.
2. <i>reserved1</i>			.
3. <i>masterIP</i>			.
master	IP		.
4. <i>numSensors</i>			.
5. <i>numDoors</i>			.
6. <i>reserved2</i>			.
7. <i>sensor</i>		8	.
8. <i>doorIDs</i>		8	.
9. <i>liftIDs</i>	Lift	8	.

BS2DeviceZoneFireAlarmMemberInfo

```
typedef struct {
    uint32_t readerID;
} BS2DeviceZoneFireAlarmMemberInfo;
```

- 1. *readerID*

BS2DeviceZoneFireSensor

```
typedef struct {
    uint32_t deviceID;
    uint8_t port;
    uint8_t switchType;
    uint16_t duration;
} BS2DeviceZoneFireSensor;
```

- 1. *deviceID*
- 2. *port*
- 3. *switchType*

0	
1	

- 4. *duration*

millisecond

BS2DeviceZone

```
typedef struct {
    uint32_t zoneID;
    uint8_t zoneType;
    uint8_t nodeType;
    uint8_t enable;
    uint8_t reserved[1];
    union {
        BS2DeviceZoneEntranceLimitMaster entranceLimitMaster;
        BS2DeviceZoneEntranceLimitMember entranceLimitMember;
        BS2DeviceZoneFireAlarmMaster fireAlarmMaster;
        BS2DeviceZoneFireAlarmMember fireAlarmMember;
    }
};
```

```
};
} BS2DeviceZone;
```

1. *zoneID*
1 가 .
2. *zoneType*
.
3. *nodeType*
.
4. *enable*
flag .
5. *reserved[1]*
.

BS2DeviceZoneAGEntranceLimit

```
typedef struct {
    uint32_t zoneID;
    uint16_t numAGEntranceLimit;
    uint16_t reserved1;
    uint32_t periodStart_s[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
    uint32_t periodEnd_s[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
    uint16_t numEntry[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE];
    uint16_t
maxEntry[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE][BS2_MAX_ACCESS_GROUP_ENTRANCE_LIMI
T_PER_ENTRANCE_LIMIT];
    uint32_t
accessGroupID[BS2_MAX_ENTRANCE_LIMIT_PER_ZONE][BS2_MAX_ACCESS_GROUP_ENTRANCE
_LIMIT_PER_ENTRANCE_LIMIT];
} BS2DeviceZoneAGEntranceLimit;
```

1. *zoneID*
1 가 .
2. *numAGEntranceLimit*
.
3. *reserved1*
.
4. *periodStart_s*
가 .
5. *periodEnd_s*
가 .
6. *numEntry*

7. *maxEntry*

8. *accessGroupID*

16

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