

User Management API	1
.....	1
BS2User	1
BS2UserSetting	4
BS2UserPhoto	5
BS2UserBlob	5
BS2Job	6
BS2UserBlobEx	7
BS2UserSmallBlob	8
BS2UserSmallBlobEx	9
BS2UserSettingEx	10
BS2UserFaceExBlob	12
BS2UserStatistic	13

User Management API

API .

- [BS2_GetUserList](#): ID 가 .
- [BS2_RemoveUser](#): .
- [BS2_RemoveAllUser](#): .
- [BS2_GetUserInfos](#): ID 가 .
- [BS2_GetUserInfosEx](#): [+ 2.4.0] ID 가 . (Job code, User phrase)
- [BS2_EnrollUser](#): .
- [BS2_EnrollUserEx](#): [+ 2.4.0] . (Job code, User phrase)
- [BS2_EnrollUser](#): [+ 2.6.3] .
- [BS2_EnrollUserEx](#): [+ 2.6.3] . (Job code, User phrase)
- [BS2_GetUserDatas](#): 가 .
- [BS2_GetUserDatasEx](#): [+ 2.5.0] 가 . (Job code, User phrase)
- [BS2_GetSupportedUserMask](#): 가 .
- [BS2_EnrollUserSmall](#): [+ 2.6.3] , .
- [BS2_EnrollUserSmallEx](#): [+ 2.6.3] , .
- [BS2_GetUserSmallInfos](#): [+ 2.6.3] , ID .
- [BS2_GetUserSmallInfosEx](#): [+ 2.6.3] , ID .
- [BS2_GetUserSmallDatas](#): [+ 2.6.3] , .
- [BS2_GetUserSmallDatasEx](#): [+ 2.6.3] , .
- [BS2_EnrollUserFaceEx](#): [+ 2.7.1] Visual Face .
- [BS2_GetUserInfosFaceEx](#): [+ 2.7.1] Visual Face ID 가 .
- [BS2_GetUserDatasFaceEx](#): [+ 2.7.1] Visual Face 가 .
- [BS2_PartialUpdateUser](#): [+ 2.8.3] .
- [BS2_PartialUpdateUserEx](#): [+ 2.8.3] .
- [BS2_PartialUpdateUserSmall](#): [+ 2.8.3] .
- [BS2_PartialUpdateUserSmallEx](#): [+ 2.8.3] .
- [BS2_PartialUpdateUserFaceEx](#): [+ 2.8.3] Visual Face .
- [BS2_GetUserStatistic](#): [+ 2.8.3] 가 가 .

BS2User

```
typedef struct {
    char userID[BS2_USER_ID_SIZE];
    uint8_t formatVersion;
    uint8_t flag;
```

```
uint16_t version;
uint8_t numCards;
uint8_t numFingers;
uint8_t numFaces;
uint8_t infoMask;
uint32_t authGroupID;
uint32_t faceChecksum;
} BS2User;
```

1. *userID*
 , 1 ~ 4294967295 가 .

2. *formatVersion*
 .

3. *flag*
 flag OR 가 .

0x00	None
0x01	가
0x02	가
0x04	가
0x80	가

4. *version*
 .

5. *numCards*
 .

6. *numFingers*
 .

7. *numFaces*
 .

8. *infoMask*
 [+ 2.8.3] 가 가 , infoMask ,
 가 .
 , Partial update (BS2_PartialUpdateUser, BS2_PartialUpdateUserEx,
 BS2_PartialUpdateUserSmall, BS2_PartialUpdateUserSmallEx, BS2_PartialUpdateUserFaceEx) user
 mask . ()

0x01	BS2_USER_INFO_MASK_PHRASE
0x02	BS2_USER_INFO_MASK_JOB_CODE
0x04	BS2_USER_INFO_MASK_NAME
0x08	BS2_USER_INFO_MASK_PHOTO
0x10	BS2_USER_INFO_MASK_PIN
0x20	BS2_USER_INFO_MASK_CARD
0x40	BS2_USER_INFO_MASK_FINGER

0x80	BS2_USER_INFO_MASK_FACE

infoMask

	BS2_USER_MASK	infoMask
	unmasking	unmasking
	masking	masking
	unmasking	masking

infoMask , partial update user mask , unmasking

infoMask , partial update user mask , masking

infoMask masking , partial update user mask unmasking

Credential(/ /)
BS2User numCards, numFingers, numFaces가 0 , fingerObjs, cardObjs, faceObjs, faceExObjs credential 가 infoMask
/ / 0 , infoMask mask credential
2 가 , infoMask
BS2_USER_INFO_MASK_FINGER masking , numFingers = 1, fingerObjs
1 가 2 1 가 , 3

Credential(/ /)
/ / credential 0 , infoMask masking , 가
credential

Credential(/ /)
/ / credential 0 , infoMask unmasking ,
credential

9. authGroupID
ID.

10. faceChecksum

BS2UserSetting



```
typedef struct {
    uint32_t startTime;
    uint32_t endTime;
    uint8_t fingerAuthMode;
    uint8_t cardAuthMode;
    uint8_t idAuthMode;
    uint8_t securityLevel;
} BS2UserSetting;
```

1. *startTime*
가 , 0
978307200 (2001-01-01 00:00:00)

2. *endTime*
가 , 0
1924991999 (2030-12-31 23:59:59)
, 2037
(, BioStation 3 , 1.3.0 2037 12 31 .)

3. *fingerAuthMode*

0	
1	PIN
254	
255	()

4. *cardAuthMode*

2	
3	
4	PIN
5	PIN
6	, , PIN
254	
255	()

5. *idAuthMode*

	ID	
7	ID	
8	ID	PIN
9	ID	PIN
10	ID	PIN
254		
255	(	)

6. *securityLevel*

0	
1	
2	
3	
4	
5	

BS2UserPhoto

```
typedef struct {
    uint32_t size;
    uint8_t data[BS2_USER_PHOTO_SIZE];
} BS2UserPhoto;
```

1. *size*

2. *data*

, 16kb

BS2UserBlob

```
typedef struct {
    BS2User user;
    BS2UserSetting setting;
    uint8_t name[BS2_USER_NAME_SIZE];
    BS2UserPhoto photo;
    uint8_t pin[BS2_PIN_HASH_SIZE];
    BS2CSNCard* cardObjs;
    BS2Fingerprint* fingerObjs;
    BS2Face* faceObjs;
    uint32_t accessGroupId[BS2_MAX_NUM_OF_ACCESS_GROUP_PER_USER];
};
```

```
    } BS2UserBlob;
```

1. *user*

- ## 2. setting

- ### 3. *name*

UTF-8

4. *photo*

Jpeg

5. *pin*

PIN *BS MakePinCode*

- ## 6. *cardObjs*

user.numCards

Smartcard API

- ## 7. *fingerObjs*

user.numFingers

Fingerprint API

- ## 8. *faceObjs*

user.numFaces

Face API

- ## 9. *accessGroupId*

가

16

BS2Job

```
typedef struct {
    uint8_t numJobs;
    uint8_t reserved[3];

    struct {
        BS2_JOB_CODE code;
        BS2_JOB_LABEL label;
    } jobs[BS2_MAX_JOB_SIZE];
} BS2Job;
```

1. *numJobs*

Job

2. *reserved*

- ### 3. jobs

T&A Job

BS2UserBlobEx

```
typedef struct {
    BS2User user;
    BS2UserSetting setting;
    uint8_t name[BS2_USER_NAME_SIZE];
    BS2UserPhoto photo;
    uint8_t pin[BS2_PIN_HASH_SIZE];
    BS2CSNCard* cardObjs;
    BS2Fingerprint* fingerObjs;
    BS2Face* faceObjs;
    BS2Job job;
    BS2_USER_PHRASE phrase;
    uint32_t accessGroupId[BS2_MAX_NUM_OF_ACCESS_GROUP_PER_USER];
} BS2UserBlobEx;
```

1. *user*2. *setting*3. *name*

UTF-8

4. *photo*

Jpeg

5. *pin*

PIN

*BS_MakePinCode*6. *cardObjs***user.numCards**[Smartcard API](#)7. *fingerObjs***user.numFingers**[Fingerprint API](#)8. *faceObjs***user.numFaces**[Face API](#)9. *job*10. *phrase*

UI

FaceStation 2	V1.0.0
FaceStation F2	V1.0.0
X-Station 2	V1.0.0

11. *accessGroupId*

가

16

.

BS2UserSmallBlob

```
typedef struct {
    BS2User user;
    BS2UserSetting setting;
    uint8_t name[BS2_USER_NAME_SIZE];
    BS2UserPhoto* photo;
    uint8_t pin[BS2_PIN_HASH_SIZE];
    BS2CSNCard* cardObjs;
    BS2Fingerprint* fingerObjs;
    BS2Face* faceObjs;
    uint32_t accessGroupId[BS2_MAX_NUM_OF_ACCESS_GROUP_PER_USER];
} BS2UserSmallBlob;
```

1. *user*
2. *setting*
3. *name*

UTF-8
4. *photo*

Jpeg
5. *pin*

PIN

BS_MakePinCode
6. *cardObjs*

user.numCards

Smartcard API
7. *fingerObjs*

user.numFingers

Fingerprint API
8. *faceObjs*

user.numFaces

Face API
9. *accessGroupId*

BS2UserSmallBlobEx

```
typedef struct {
    BS2User user;
    BS2UserSetting setting;
    uint8_t name[BS2_USER_NAME_SIZE];
    BS2UserPhoto* photo;
    uint8_t pin[BS2_PIN_HASH_SIZE];
    BS2CSNCard* cardObjs;
    BS2Fingerprint* fingerObjs;
    BS2Face* faceObjs;
    BS2Job job;
    BS2_USER_PHRASE phrase;
    uint32_t accessGroupId[BS2_MAX_NUM_OF_ACCESS_GROUP_PER_USER];
} BS2UserSmallBlobEx;
```

1. user
2. setting
3. name

UTF-8
4. photo

Jpeg
5. pin

PIN

BS_MakePinCode
6. cardObjs

user.numCards

Smartcard API
7. fingerObjs

user.numFingers

Fingerprint API
8. faceObjs

user.numFaces

Face API
9. job
10. phrase

UI

FaceStation 2	V1.0.0
FaceStation F2	V1.0.0
X-Station 2	V1.0.0
BioStation 3	V1.0.0

11. *accessGroupId*
가

16

BS2UserSettingEx

Visual Face

BS2UserSetting

```
typedef struct {  
    uint8_t faceAuthMode;  
    uint8_t fingerprintAuthMode;  
    uint8_t cardAuthMode;  
    uint8_t idAuthMode;  
    uint8_t reserved[28];  
} BS2UserSettingEx;
```

1. *faceAuthMode*

	1	2	3	4
11				
12				
13		PIN		
14		PIN		
15			PIN	
254				
255	)			

2. *fingerprintAuthMode*

	1	2	3	4
16				
17				
18		PIN		

	1	2	3	4
19		PIN		
20			PIN	
254				
255	(			

3. cardAuthMode

	1	2	3
21			
22			
23			
24		PIN	
25			
26		PIN	
27		PIN	
28		PIN	
29			
30			PIN
31			
32			PIN
33			PIN
34			PIN
35			PIN
254			
255	(		

4. idAuthMode

ID

	1	2	3
36	ID		
37	ID		
38	ID	PIN	
39	ID		
40	ID	PIN	
41	ID	PIN	
42	ID	PIN	
43	ID		
44	ID		PIN

	1	2	3
45	ID		
46	ID		PIN
47	ID		PIN
48	ID		PIN
49	ID		PIN
254			
255	(		
	)		

5. reserved

BS2UserFaceExBlob

```
typedef struct
{
    BS2User user;
    BS2UserSetting setting;
    BS2_USER_NAME user_name;
    BS2UserPhoto* user_photo_obj;
    BS2_USER_PIN pin;
    BS2CSNCard* cardObj;
    BS2Fingerprint* fingerObj;
    BS2Face* faceObj; // FS2, FL
    BS2Job job;
    BS2_USER_PHRASE phrase;
    BS2_ACCESS_GROUP_ID accessGroupId[BS2_MAX_NUM_OF_ACCESS_GROUP_PER_USER];

    BS2UserSettingEx settingEx; // F2
    BS2FaceEx* faceExObj; // F2
} BS2UserFaceExBlob;
```

1. user

2. setting

3. name
UTF-8

4. photo
Jpeg

5. pin
PIN BS_MakePinCode

6. *cardObjs*

user.numCards

Smartcard API

7. *fingerObjs*

user.numFingers

Fingerprint API

8. *faceObjs*

IR Face

user.numFaces

Face API

9. *job*

10. *phrase*

UI

FaceStation 2	V1.0.0
FaceStation F2	V1.0.0
X-Station 2	V1.0.0

11. *accessGroupId*

가 16

12. *settingEx*

Visual Face
가

13. *faceExObjs*

Visual Face

user.numFaces

Face API

BS2UserStatistic

```
typedef struct {
    uint32_t numUsers;
    uint32_t numCards;
    uint32_t numFingerprints;
    uint32_t numFaces;
    uint32_t numNames;
    uint32_t numImages;
    uint32_t numPhrases;
} BS2UserStatistic;
```

1. *numUsers*

2. *numCards*

3. *numFingerprints*

4. *numFaces*

5. *numNames*

6. *numImages*

7. *numPhrases*

From:

<https://kb.supremainc.com/bs2sdk/> - **BioStar Device SDK**

Permanent link:

https://kb.supremainc.com/bs2sdk./doku.php?id=ko:user_management_api&rev=1735793042

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