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# User Management API

## API

- [BS2\\_GetUserList](#): ID 가
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- [BS2\\_GetUserInfos](#): ID 가
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- [BS2\\_EnrollUserFaceEx](#): [+ 2.7.1] FSF2, BS3
- [BS2\\_GetUserInfosFaceEx](#): [+ 2.7.1] FSF2, BS3 ID 가
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- [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

	<b>BS2_USER_MASK</b>	<b>infoMask</b>
	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 , 가 infoMask

/ / 0 , infoMask mask credential

BS2\_USER\_INFO\_MASK\_FINGER masking , numFingers = 1, fingerObjs

가가 1 , 2 1 가 , 3

**Credential( / / )**

/ / credential 0 , infoMask masking , 가 credential

**Credential( / / )**

/ / credential 0 , infoMask unmasking , credential

9. authGroupID

ID.

10. faceChecksum

**BS2UserSetting**



BS2UserSettingEx

```

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)

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

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**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&amp;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



## 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*

가

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## 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

11. accessGroupId

가

# BS2UserSettingEx

**FaceStation F2, BioStation 3**  
 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		
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
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* cardObjs;
    BS2Fingerprint* fingerObjs;
    BS2Face* faceObjs; // 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* faceExObjs; // 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

FaceStation2, FaceLite

**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*

FaceStation F2

가

13. *faceExObjs*

FaceStation F2

**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:

<http://kb.supremainc.com/bs2sdk/> - **BioStar 2 Device SDK**

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