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# SDK API

The followings are a set of APIs that initialize device management information and that are used for dynamic memory control and PIN code generation.

- [BS2\\_Version](#): Returns the SDK version.
- [BS2\\_AllocateContext](#): Allocates the device management Context.
- [BS2\\_ReleaseContext](#): Releases the device management Context.
- [BS2\\_Initialize](#): Initializes the device management Context.
- [BS2\\_ReleaseObject](#): Releases dynamic memory.
- [BS2\\_MakePinCode](#): Encrypts the PIN.
- [BS2\\_MakePinCodeWithKey](#): Encrypts PIN code with the user-defined PIN encryption key. [+ 2.7.1]
- [BS2\\_SetMaxThreadCount](#): Specifies the maximum thread count.
- [BS2\\_ComputeCRC16CCITT](#): Calculates the CRC-16 CCITT checksum.
- [BS2\\_GetCardModel](#): Retrieves the supported card models.
- [BS2\\_SetDataEncryptKey](#): Changes the user defined PIN encryption key. [+ 2.7.1]
- [BS2\\_RemoveDataEncryptKey](#): Removes the encryption key for the device.
- [BS2\\_SetDeviceSearchingTimeout](#) : Specifies the device searching time.
- [BS2\\_SetDebugFileLog](#) : Retrieves debugging file log.
- [BS2\\_EnableDeviceLicense](#): [+ 2.9.1] Activate the device license.
- [BS2\\_DisableDeviceLicense](#): [+ 2.9.1] Deactivate the device license.
- [BS2\\_QueryDeviceLicense](#): [+ 2.9.1] Check device license information.
- [BS2\\_InitializeEx](#): [+ 2.9.6] Initializes the device management context.

## Structure

### BS2EncryptKey

```
enum
{
    BS2_ENC_KEY_SIZE = 32,
};

typedef struct
{
    uint8_t key[BS2_ENC_KEY_SIZE];
    uint8_t reserved[32];
} BS2EncryptKey;
```

#### 1. *key*

The key value used by the device.

#### 2. *reserved*

Reserved space.

## BS2LicenseBlob

```
typedef struct {
    BS2_LICENSE_TYPE    licenseType;
    uint16_t            numOfDevices;
    BS2_DEVICE_ID*     deviceIDObjs;
    uint32_t            licenseLen;
    uint8_t*           licenseObj;
} BS2LicenseBlob;
```

### 1. *licenseType*

The type of license.

Value	Description
0x0000	None
0x0001	Visual QR

### 2. *numOfDevices*

Number of licenses activated devices.

### 3. *deviceIDObjs*

Slave devices for which license information will be issued.

### 4. *licenseLen*

license activation file size.

### 5. *licenseObj*

License activation data block.

## BS2LicenseResult

```
typedef struct {
    BS2_DEVICE_ID    deviceID;
    BS2_LICENSE_STATUS    status;
} BS2LicenseResult;
```

### 1. *deviceID*

Device identifier.

### 2. *status*

License status information.

Value	Description
0	Not supported
1	Disable
2	Enable

Value	Description
3	Expired

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