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## BS2\_EnableDeviceLicense

[+ 2.9.1] Activate the device license by selecting the devices to activate the license and the license file.

Slave devices connected to the master device can be collectively selected, and activation results for each device are returned through `outResultObj` and `outNumOfResult`.

This feature is available only on devices that support the device license activation feature, and the devices that support the feature are listed below.

Supported devices	Firmware
XS2-Finger	V1.2.0
XS2-Card	V1.2.0
BS3	V1.1.0

### Declaration

```
#include "BS_API.h"

int BS2_EnableDeviceLicense(void* context, uint32_t deviceId, const
BS2LicenseBlob* licenseBlob, BS2LicenseResult** outResultObj, uint32_t*
outNumOfResult);
```

[See BS2LicenseBlob Structure](#)  
[See BS2LicenseResult Structure](#)

### Parameter

- [In] `context` : Context
- [In] `deviceId` : Device Identifier
- [In] `licenseBlob` : Device license information structure pointer
- [Out] `outResultObj` : Pointer to structure to receive device license activation result
- [Out] `outNumOfResult` : Number of device license activation result structures

#### NOTE

The `outResultObj` parameter must be used and then returned memory to the system via the [BS2\\_ReleaseObject](#) function.

## Return Value

If successfully done, BS\_SDK\_SUCCESS will be returned. If there is an error, the corresponding error code will be returned.

## Sample Code(C++)

[sample\\_bs2\\_enabledlicenselicense.cpp](#)

```
int setDeviceLicense(void* context, BS2_DEVICE_ID id)
{
    DeviceControl dc(context);
    BS2LicenseBlob licenseBlob = { , };
    vector<BS2_DEVICE_ID> deviceIDs;
    vector<BS2LicenseResult> licenseResult;
    int sdkResult = BS_SDK_SUCCESS;

    licenseBlob.licenseType =
    (BS2_LICENSE_TYPE)Utility::getInput<uint32_t>("Enter the license type.
    (0: None, 1: Visual QR)");
    licenseBlob.numOfDevices =
    (uint16_t)Utility::getInput<uint32_t>("How many devices do you want to
    register?");
    if ( < licenseBlob.numOfDevices)
    {
        // Device ID
        for (uint16_t idx = ; idx < licenseBlob.numOfDevices; idx++)
        {
            BS2_DEVICE_ID deviceID =
            (BS2_DEVICE_ID)Utility::getInput<uint32_t>("Enter a device ID:");
            deviceIDs.push_back(deviceID);
        }

        licenseBlob.deviceIDobjs = deviceIDs.data();

        string pathName = Utility::getLine("Enter the path and name of
        license.");
        licenseBlob.licenseLen = Utility::getResourceSize(pathName);
        shared_ptr<uint8_t> buffer(new uint8_t[licenseBlob.licenseLen],
        ArrayDeleter<uint8_t>());
        if ( < licenseBlob.licenseLen &&
        Utility::getResourceFromFile(pathName, buffer, licenseBlob.licenseLen))
        {
            licenseBlob.licenseObj = buffer.get();

            sdkResult = dc.enableDeviceLicense(id, &licenseBlob,
            licenseResult);
            if (BS_SDK_SUCCESS == sdkResult)
                DeviceControl::print(licenseResult);
        }
    }
}
```

```
    }
}

return sdkResult;
}

int DeviceControl::enableDeviceLicense(BS2_DEVICE_ID id, const
BS2LicenseBlob* licenseBlob, vector<BS2LicenseResult>& licenseResult)
{
    BS2LicenseResult* result = NULL;
    uint32_t numOfResult = ;
    int sdkResult = BS2_EnableDeviceLicense(context_, id, licenseBlob,
&result, &numOfResult);
    if (BS_SDK_SUCCESS != sdkResult)
    {
        TRACE("BS2_EnableDeviceLicense call failed: %d", sdkResult);
        return sdkResult;
    }

    licenseResult.clear();
    for (uint32_t idx = ; idx < numOfResult; idx++)
    {
        licenseResult.push_back(result[idx]);
    }

    return sdkResult;
}
```

## Sample Code(C#)

[sample\\_bs2\\_enabledlicencse.cs](#)

```
    BS2LicenseBlob licenseBlob =
Util.AllocateStructure<BS2LicenseBlob>();

    Console.WriteLine("Try adding a license");

    Console.WriteLine("Enter the license type. (0: None, 1: Visual
QR)");
    Console.Write(">>>> ");
    licenseBlob.licenseType =
Util.GetInput((UInt16)BS2LicenseType.VISUAL_QR_MASK);

    Console.WriteLine("How many devices do you want to register?");
    Console.Write(">>>> ");
    licenseBlob.numOfDevices = Util.GetInput((UInt16)1);

    if ( < licenseBlob.numOfDevices)
```

```
{
    // Device ID
    List<UInt32> listID = new List<UInt32>();
    UInt32 tempID = ;
    for (UInt16 idx = ; idx < licenseBlob.numOfDevices; idx++)
    {
        Console.WriteLine("  Slave device ID #{0}", idx);
        Console.Write("  >> ");
        tempID = (UInt32)Util.GetInput();
        listID.Add(tempID);
    }

    byte[] byteListID =
listID.SelectMany(BitConverter.GetBytes).ToArray();
    int byteCount = Marshal.SizeOf(typeof(UInt32)) *
licenseBlob.numOfDevices;

    licenseBlob.deviceIDobjs = Marshal.AllocHGlobal(byteCount);
    Marshal.Copy(byteListID, , licenseBlob.deviceIDobjs,
byteCount);

    // License data
    Console.WriteLine("Enter the path and name of license.");
    Console.Write(">>>> ");
    string licensePath = Console.ReadLine();
    if (!File.Exists(licensePath))
    {
        Console.WriteLine("Invalid license Path");
        return;
    }

    if (Util.LoadBinary(licensePath, out licenseBlob.licenseObj,
out licenseBlob.licenseLen))
    {
        IntPtr resultObj = IntPtr.Zero;
        UInt32 numOfResult = ;

        BS2ErrorCode result =
(BS2ErrorCode)API.BS2_EnableDeviceLicense(sdkContext, deviceID, ref
licenseBlob, out resultObj, out numOfResult);
        Marshal.FreeHGlobal(licenseBlob.licenseObj);

        if (BS2ErrorCode.BS_SDK_SUCCESS != result)
        {
            Console.WriteLine("Got error({0}).", result);
        }
        else
        {
            IntPtr curResult = resultObj;
            int resultSize =
Marshal.SizeOf(typeof(BS2LicenseResult));
```

```
        for (UInt32 idx = ; idx < numOfResult; idx++)
        {
            BS2LicenseResult item =
            (BS2LicenseResult)Marshal.PtrToStructure(curResult,
            typeof(BS2LicenseResult));
            print(item, idx);
            curResult += resultSize;
        }

        API.BS2_ReleaseObject(resultObj);
    }
} // if (Util.LoadBinary(licensePath, out
licenseBlob.licenseObj, out licenseBlob.licenseLen))
} // if (0 < licenseBlob.numOfDevices)

Marshal.FreeHGlobal(licenseBlob.deviceIDObjs);
```

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

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