



ATID Co.,Ltd

# Barcode Scanner Programming Guide

Android Developer Guide

SDK Team

2017-02-22



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Company

ATID Co.,Ltd

Doc.

Writer

SDK Team

Date

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Version

V2.0

### Revision history

| Ver. | Date       | Reason  | Description       | Writer   |
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|  |  | Barcode Scanner Programming Guide |          |      |            |              |      |
| Android Developer Guide                                                           |  |                                   |          |      | Company    | ATID Co.,Ltd |      |
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## 1. Intro

This document is aim to describe the usage of SDK Library for Android developers to develop an application program by using Barcode SDK Library.

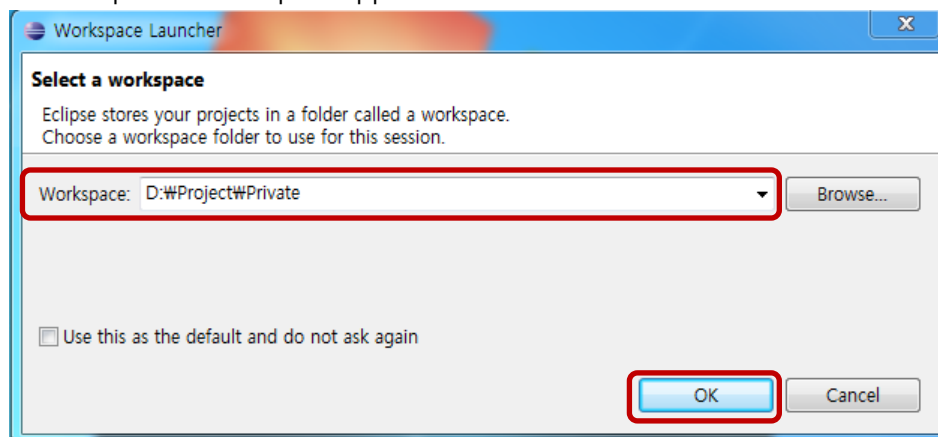
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## 2. Getting Started

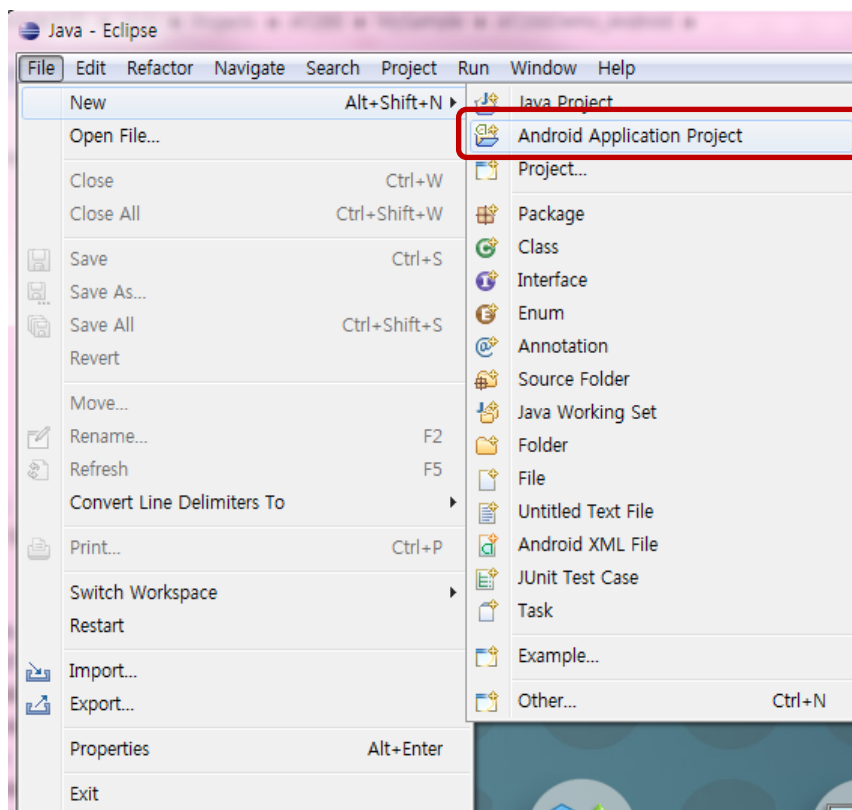
Getting Started describes how to develop a Barcode Scanner application by writing SDK Library simply.

### Create Project for Android

Launch Eclipse to develop an application for Android.

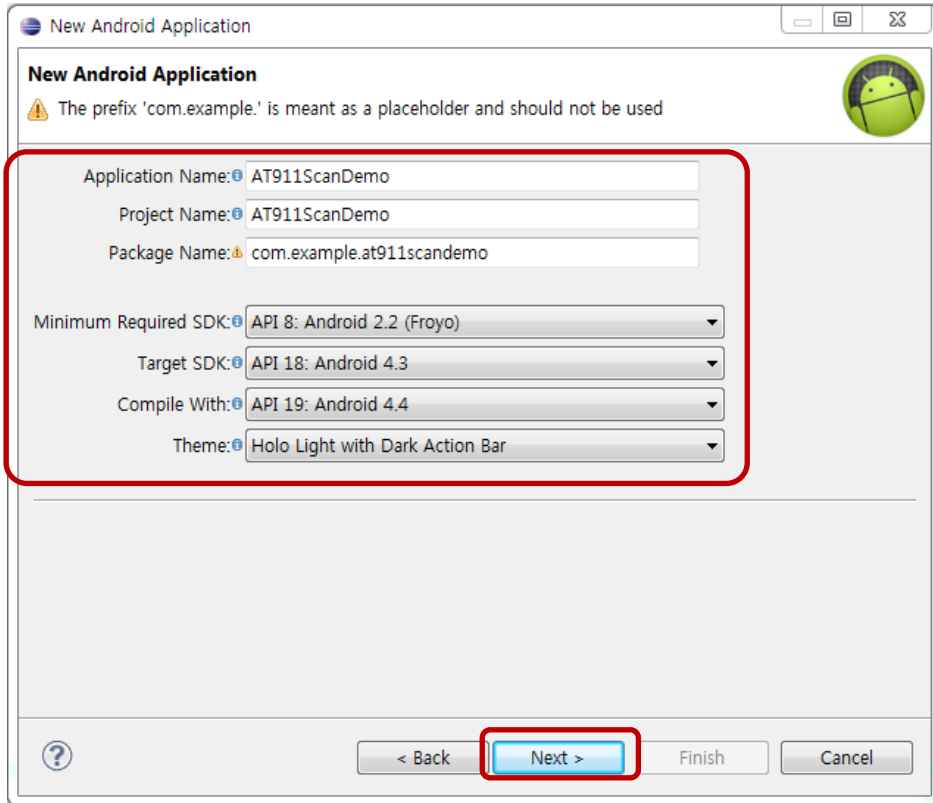


A dialog box will come out. Select the location for project on dialog box, press 'OK' button, then Eclipse will start.



|                                                                                                              |  |                                   |          |      |            |              |      |
|--------------------------------------------------------------------------------------------------------------|--|-----------------------------------|----------|------|------------|--------------|------|
| <br>All That Identification |  | Barcode Scanner Programming Guide |          |      |            |              |      |
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Once Eclipse is started, select File > New > Android Application Project, then a dialog box to creation will come out.



**New Android Application**

⚠ The prefix 'com.example.' is meant as a placeholder and should not be used

Application Name: AT911ScanDemo

Project Name: AT911ScanDemo

Package Name: com.example.at911scandemo

Minimum Required SDK: API 8: Android 2.2 (Froyo)

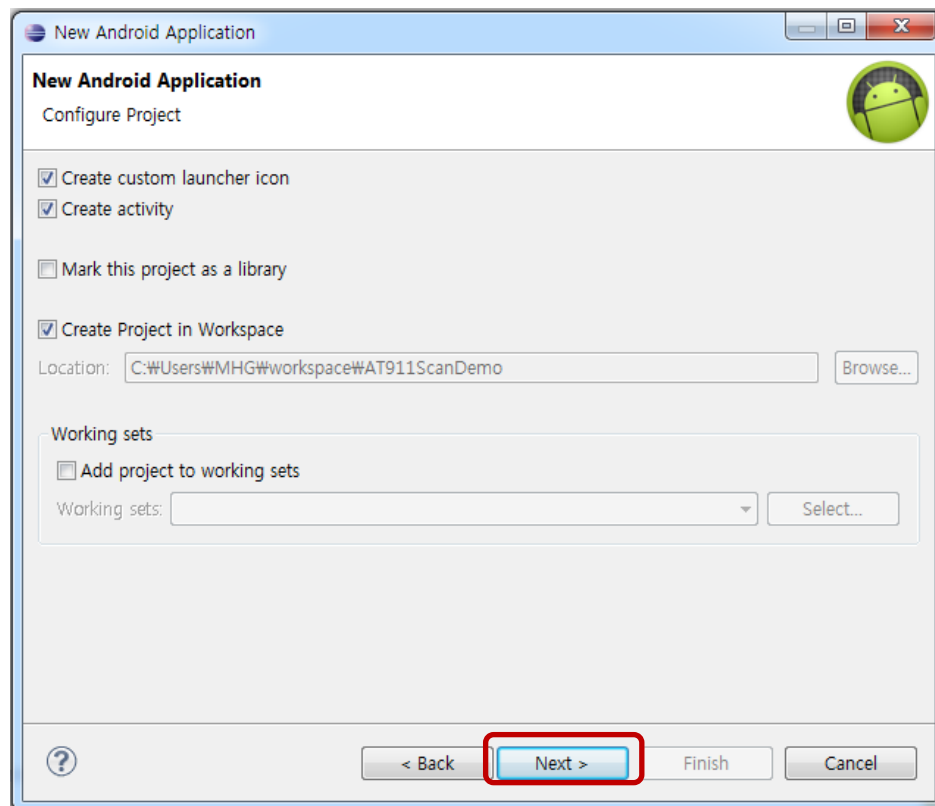
Target SDK: API 18: Android 4.3

Compile With: API 19: Android 4.4

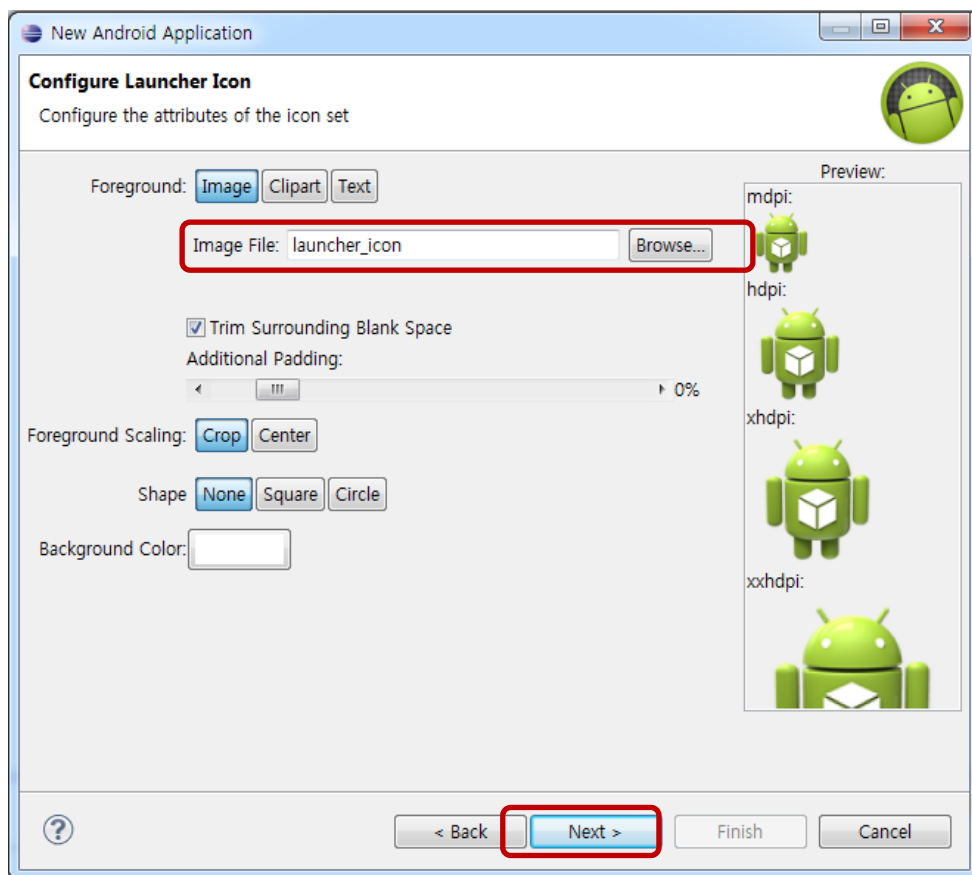
Theme: Holo Light with Dark Action Bar

< Back Next > Finish Cancel

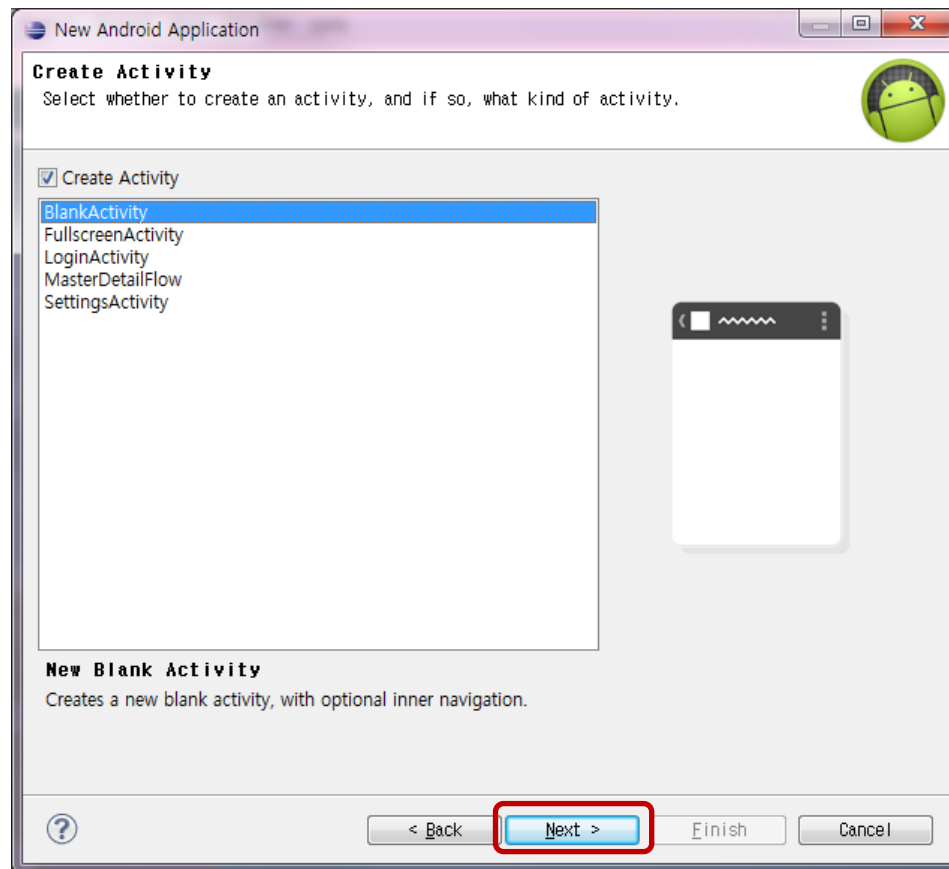
Once a dialog box with title of New Android Application comes out, input Application Name, Project Name, and Package Name, and select Minimum Required SDK, Target SDK, Compile With, and Theme, then press 'Next' button for project creation.



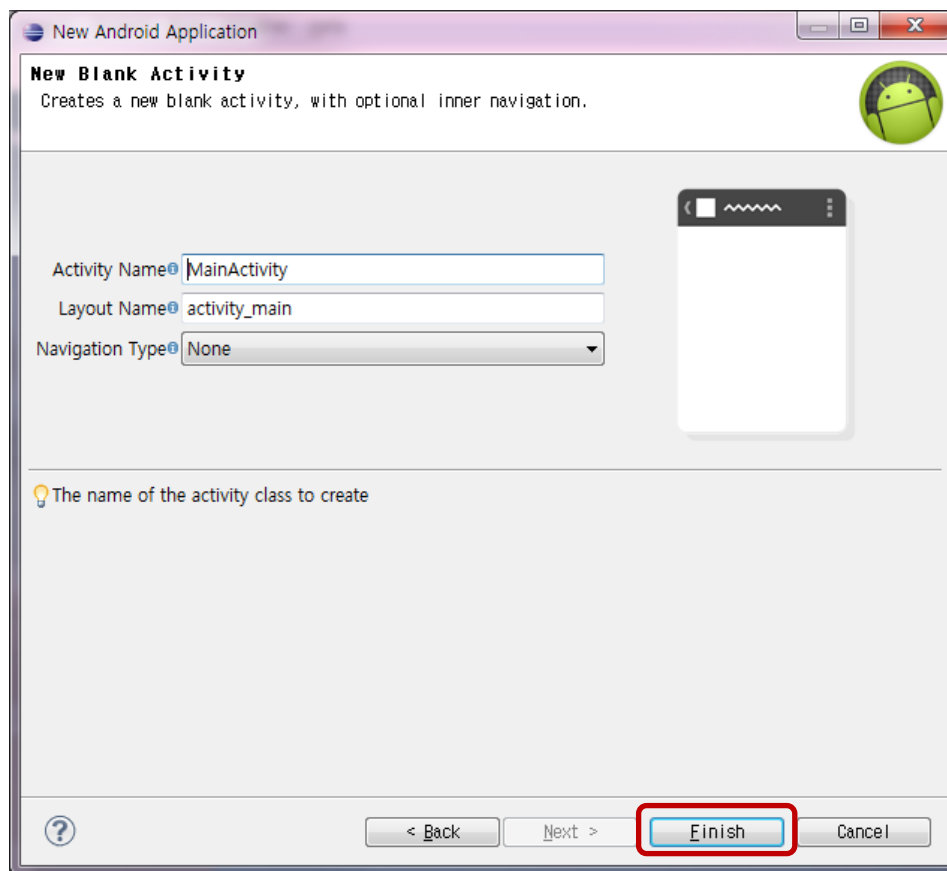
No additional work is required, press 'Next'.



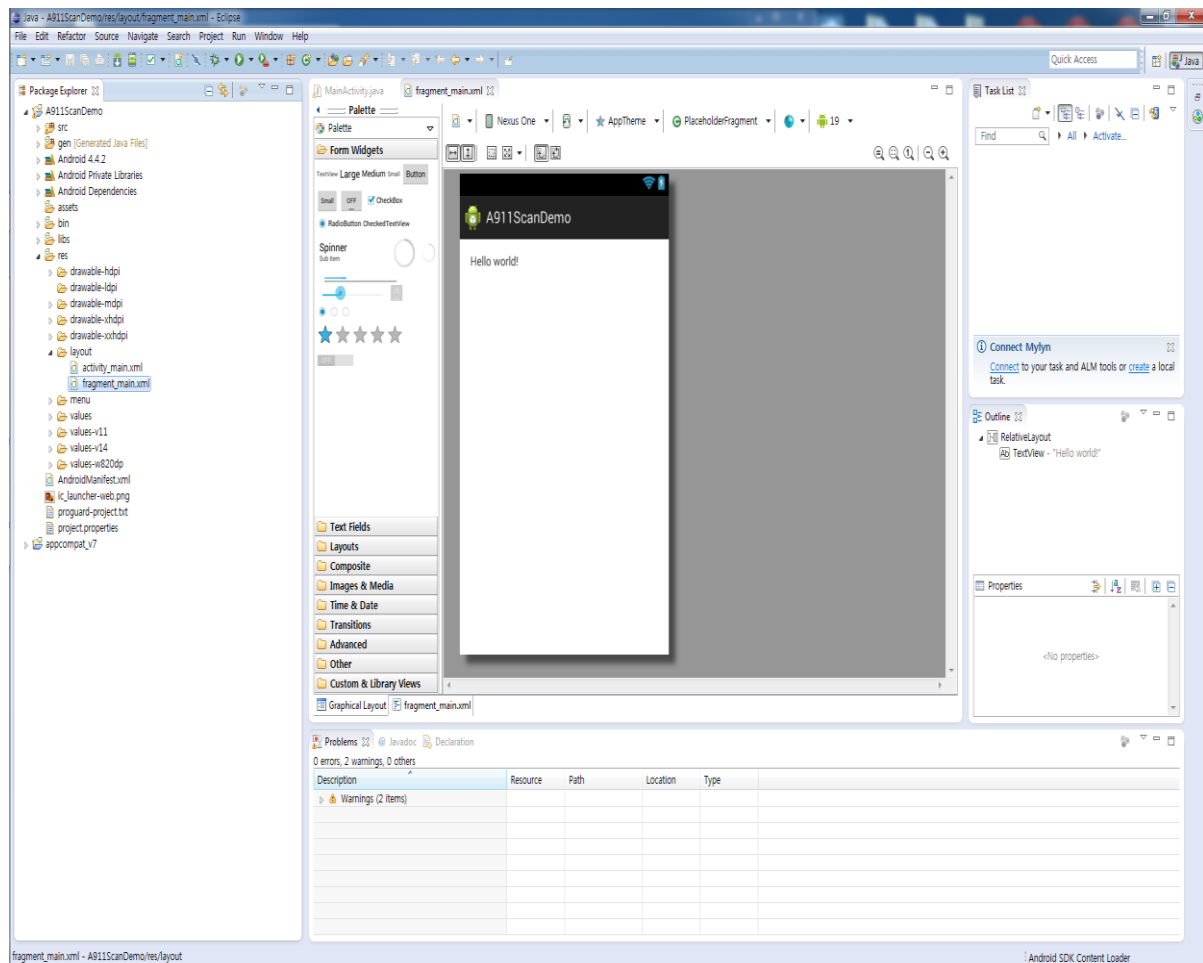
Input an image for icon of Application, then press 'Next' button for next step.



Select and sets Theme of Application, then click 'Next' button for next step.



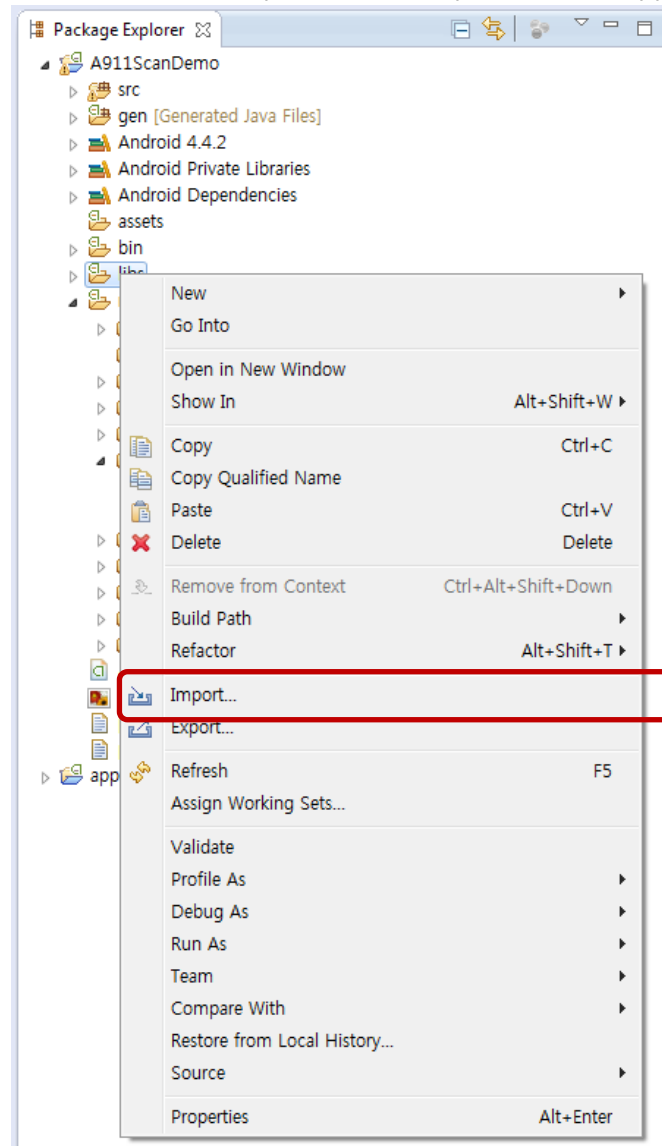
Input Main Activity in Activity Name, name of Main Layout which will be used for development in Layout name, then press 'Finish' button to finish creating project.



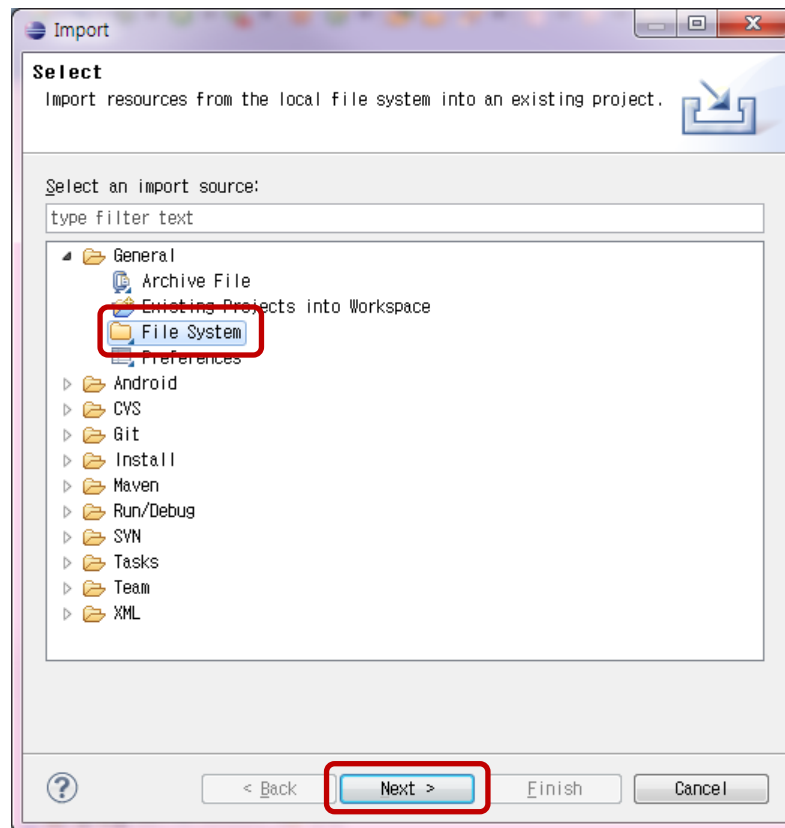
A screenshot of created Eclipse for project.

## Development Environment

A file called Barcode Scanner SDK Jar is required to develop an Android application program.

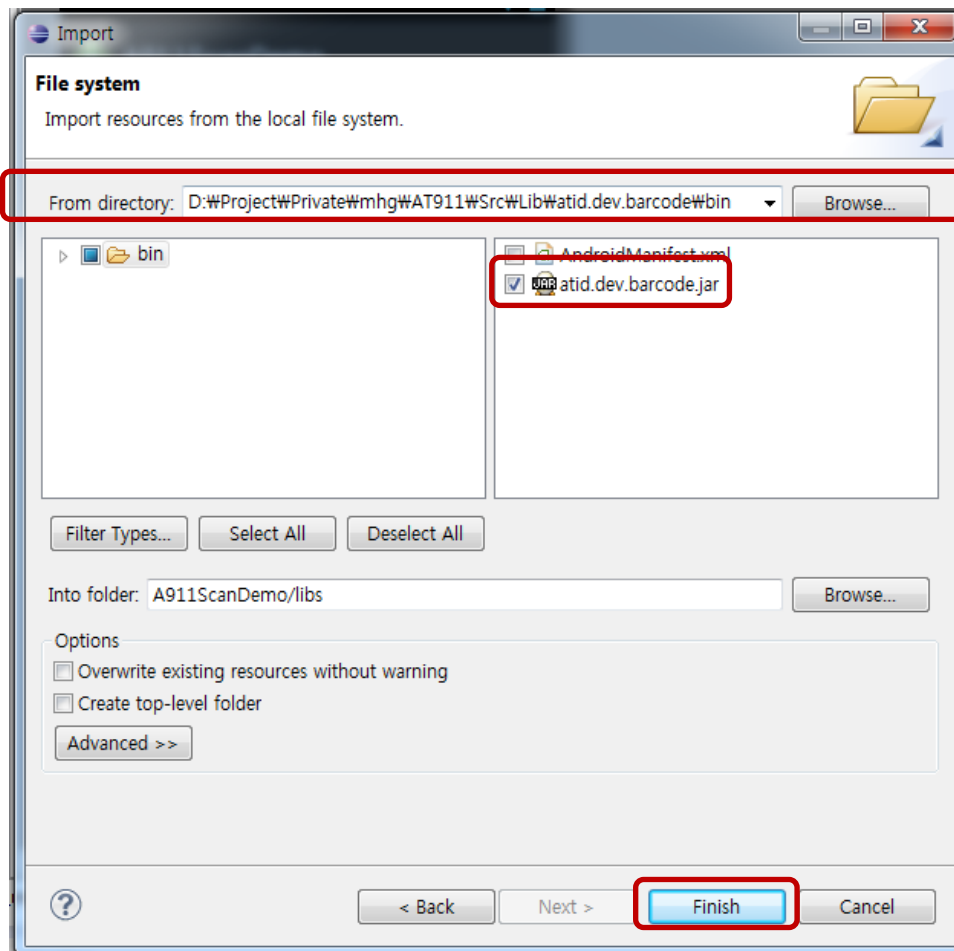


To import Barcode Scanner SDK jar file, select 'libs' and click right button of mouse, then select 'Import...'

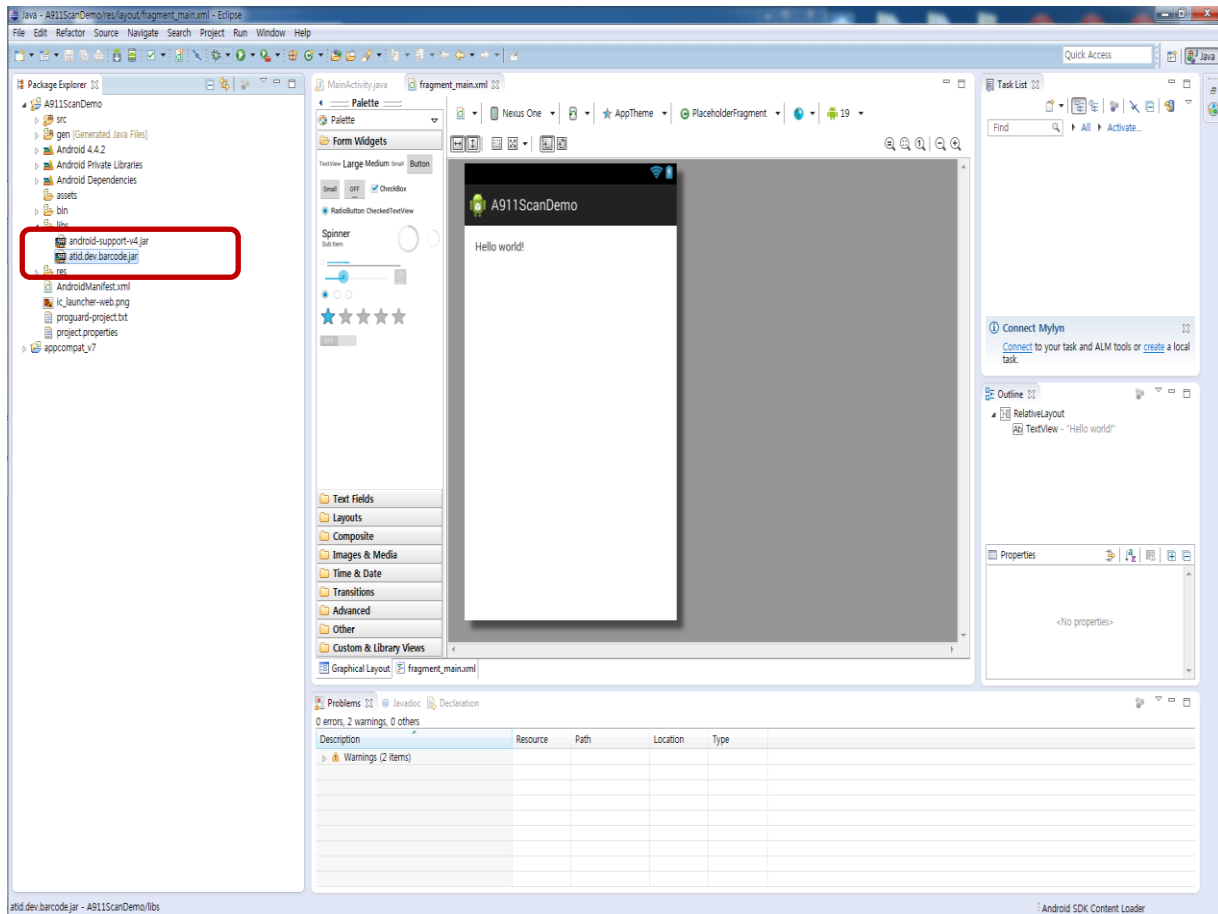


Select 'General > File Systems', then press 'Next >'.

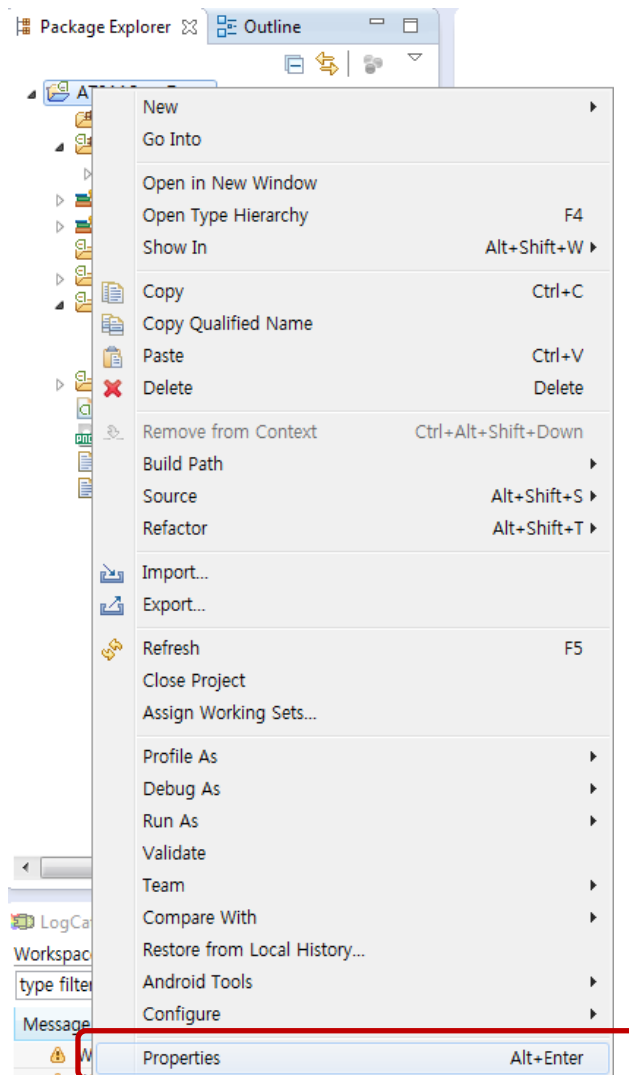
|                                                                                   |  |                                   |          |      |            |         |              |
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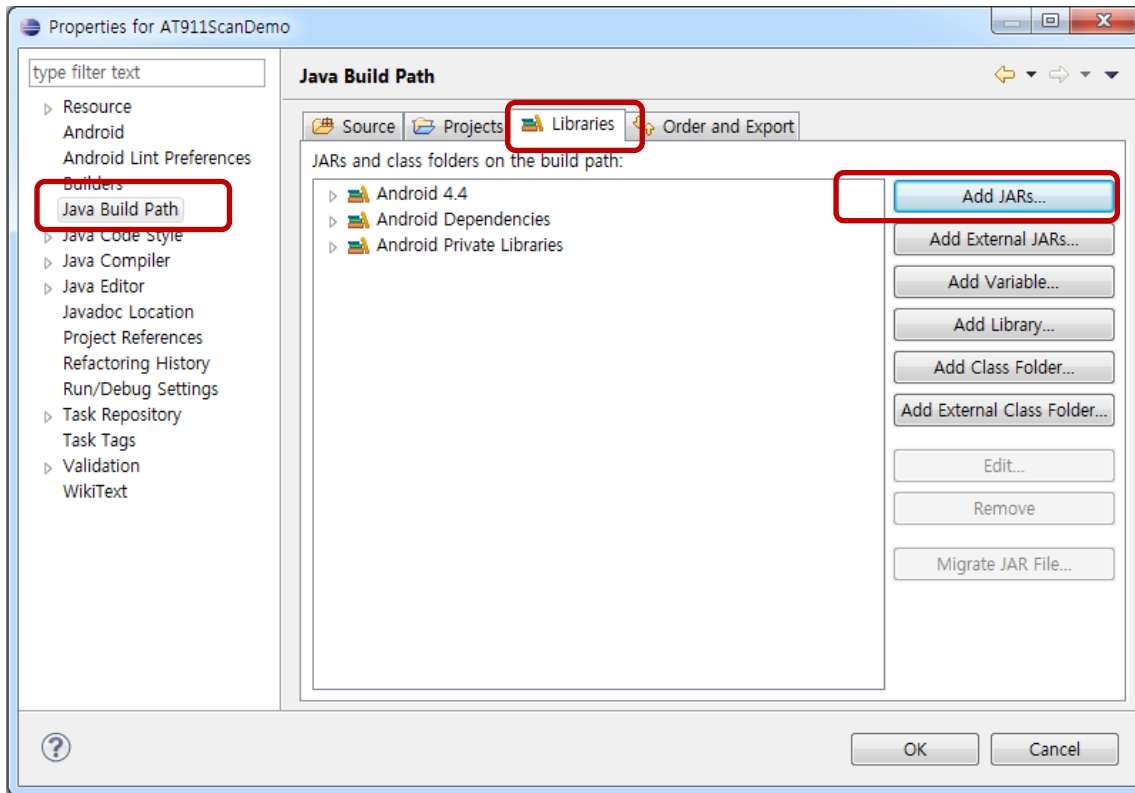
atid.dev.barcode.jar file will be shown if the location where library is selected. Check the file Find atid.dev.barcode.jar(Scanner Library) by following file path as above, select, and press 'Finish' button. Then, there will be a copy in libs folder which is created from this process.



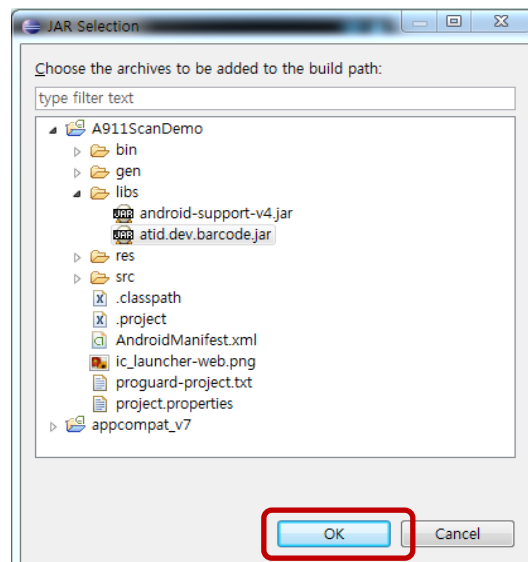
May finds jar file copied to Package Explorer.



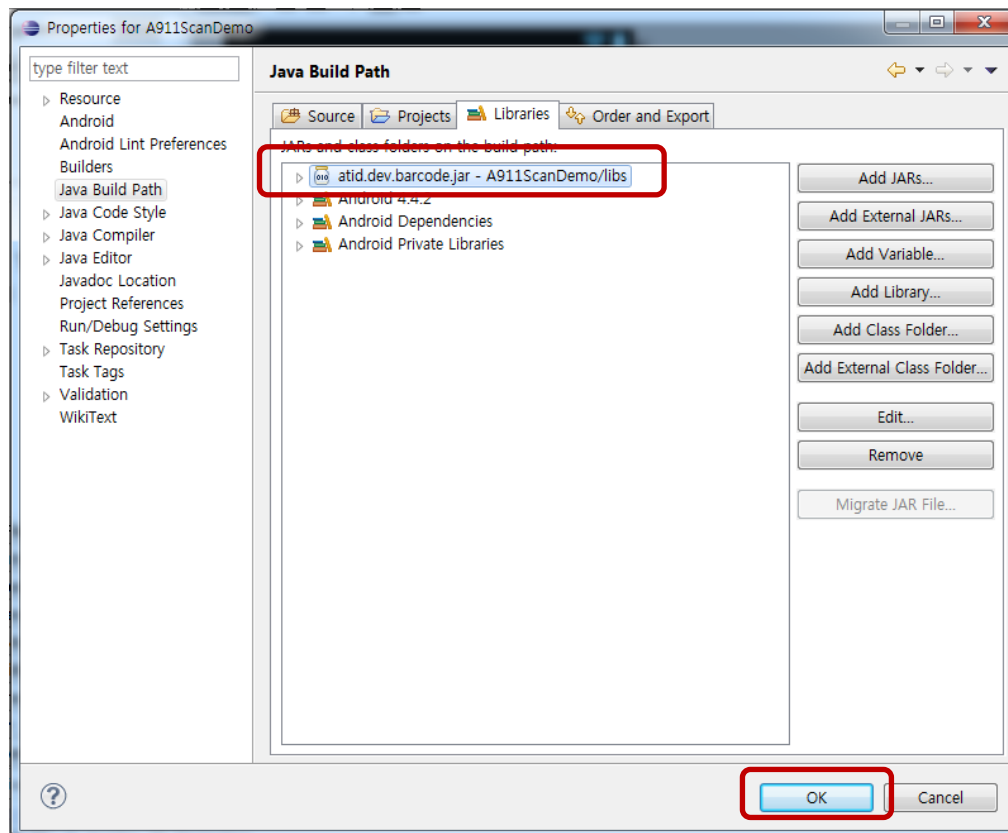
To include SDK jar file into the project, press right button of mouse in Package Explorer, and select Properties.



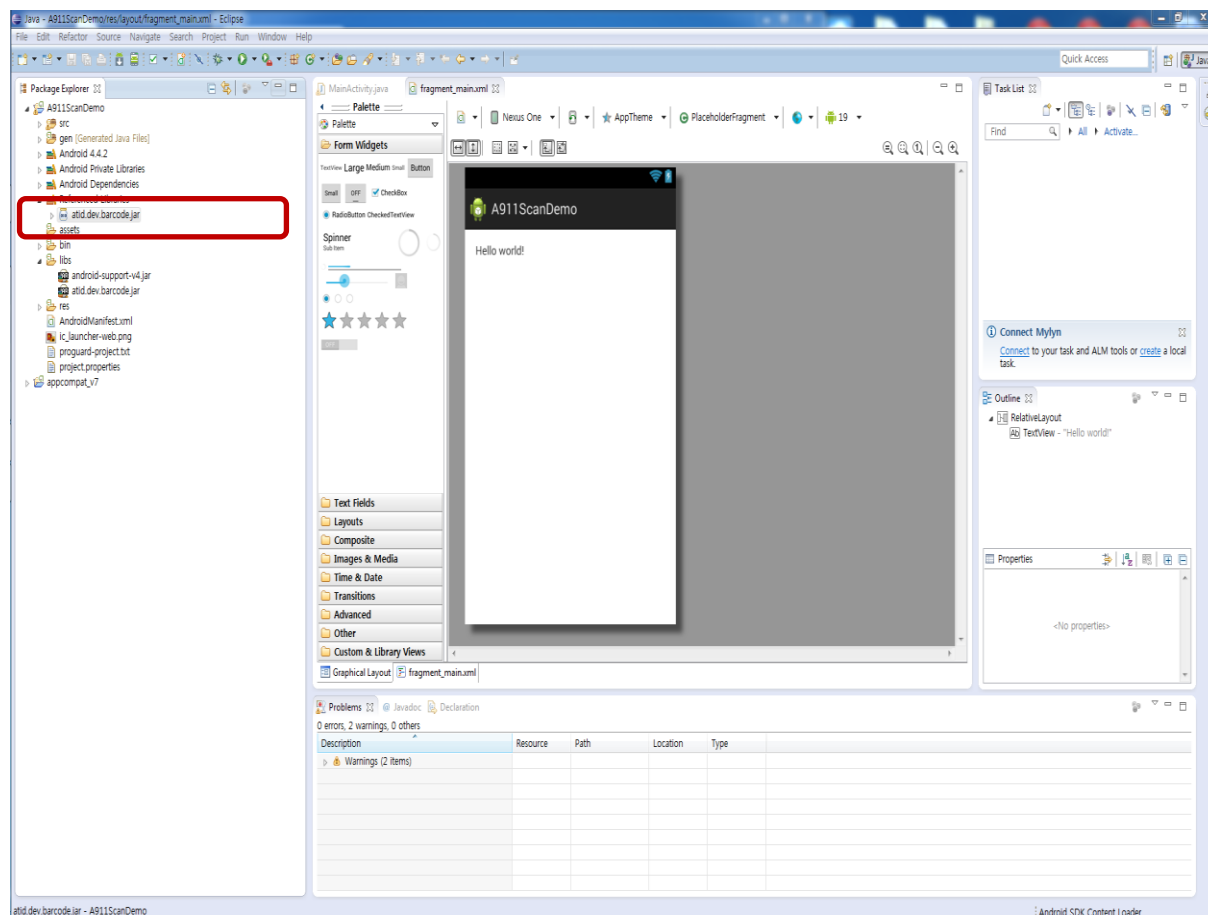
Select Java Build Path, Libraries, then click 'Add JARs'.



Select atid.dev.barcode.jar file in libs folder and click 'OK' button.



Check if atid.dev.barcode.jar file is set as Build Path, then click 'OK' button. It is final of setting.



Check whether atid.dev.barcode.jar file is created under Referenced Libraries in Packaged Explorer or not. If created, it is completely finished to proceed development of Android application..

## 3. Programming Guide

### 3.1. Create and Activity

To use scanner device, needs to create Scanner Instance as written below. Call GetInstance() function of ATScanManager Class to make connection between PDA and Scanner Device. Try to connect ATScanManager internally, and terminate connection if class is extinct. If connection is succeed, set event listener to receive event in activity.

```
private ATScanner scanner = null;

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    // Initialize Scanner Instance
    if ((this.mScanner =
        ATScanManager.getInstance(getApplicationContext())) == null) {
        // Error occurred!
        showDeviceDialog();
        return;
    }

    this.mScanner.setEventListener(this);
    String revision = this.mScanner.getVersion();
}
```

### 3.2 Event Handler

Add interface to receive input in parameter after creating entity in ATScanner, to gain the event according to device status, setting, decoding data for scanner from Scanner Device.

## 3.3.1 BarcodeEventListener

```
import com.atid.lib.dev.event.BarcodeEventListener;

public class MainActivity extends Activity implements
Button.OnClickListener, BarcodeEventListener
{
    @Override
    public void onStateChanged(EventType state) {
    }

    @Override
    public void onDecodeEvent(BarcodeType type, String barcode) {

        Log.d(TAG, "onDecodeEvent(" + type + ", [" + barcode
            + "])");

        if (type != BarcodeType.NoRead) {
            int position = this.adapterBarcode.addItem(type, barcode);
            this.lstBarcodeList.setSelection(position);
            beep();
        }
        enableScanButton(true);
    }
}
```

## 3.3 Action Operation

Start or stop operation of scanner after checking connection status for beam output, to read data by using scanner with Scanner Device connection.

```
@Override
public void onClick(View v) {
    switch (v.getId()) {
        case R.id.scan_action:
            enableScanButton(false);

            if (this.scanner.isDecode()) {
                this.scanner.stopDecode();
            } else {
                this.scanner.startDecode();
            }

            enableScanButton(true);
            break;
        case R.id.clear:
            this.adapterBarcode.clear();
            break;
    }
}
```