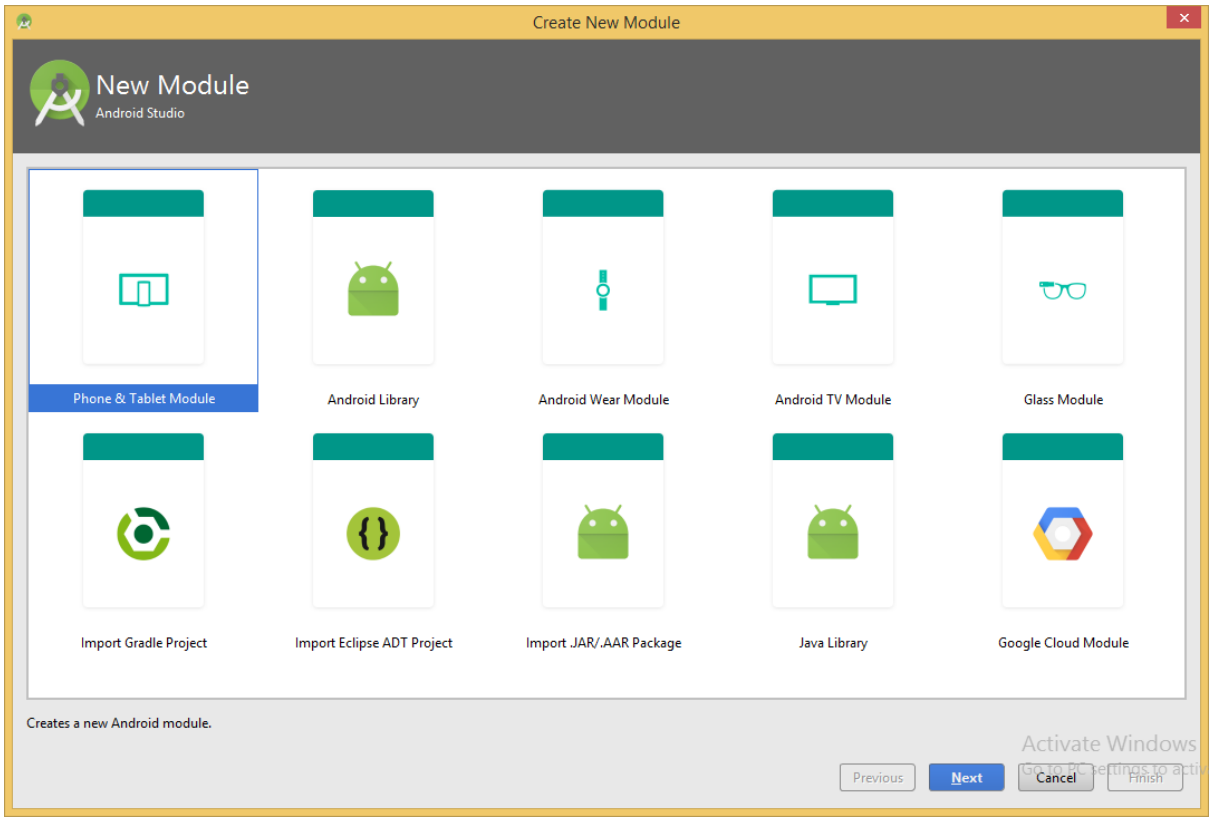
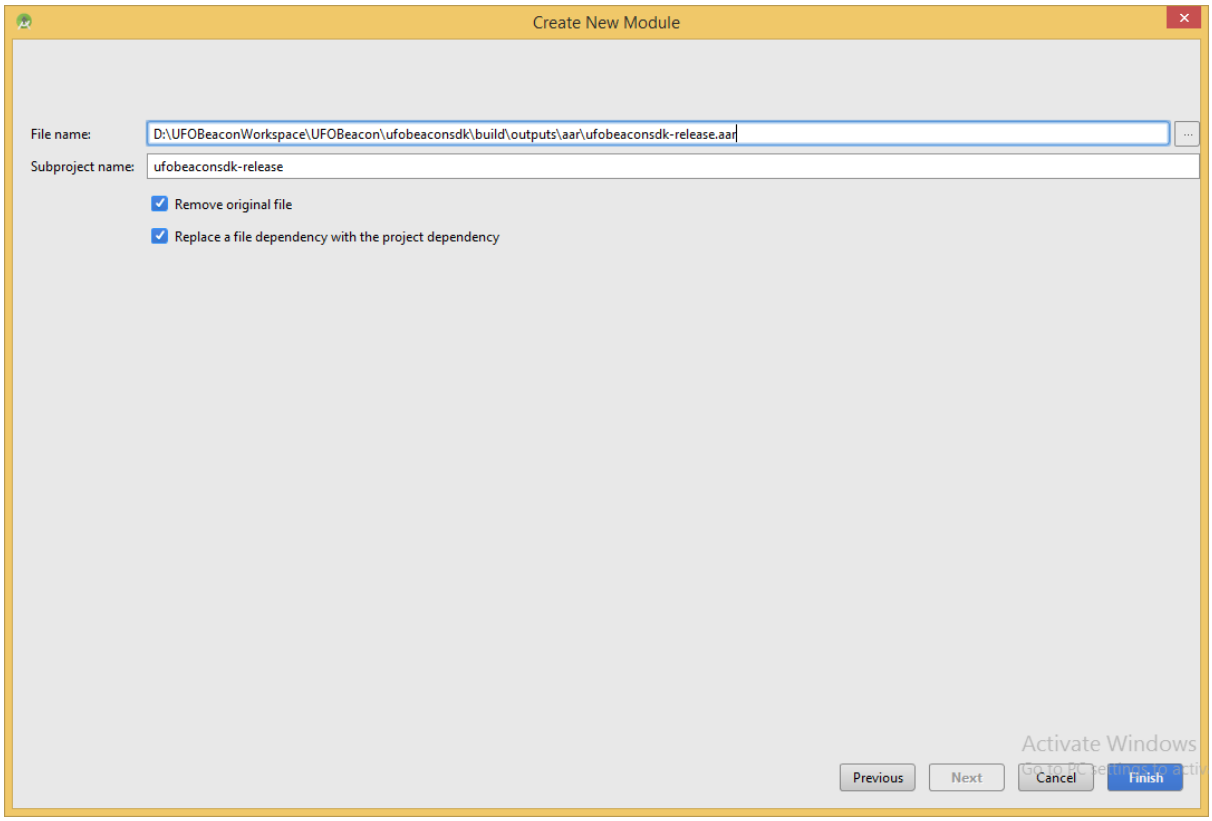
UFO SDK Guide

How to add .aar file to Project

1. First create new project in Android studio.
2. Select “File - > New” from top menu in Android studio.
3. From “New -> New Module” and it will open one window as below.

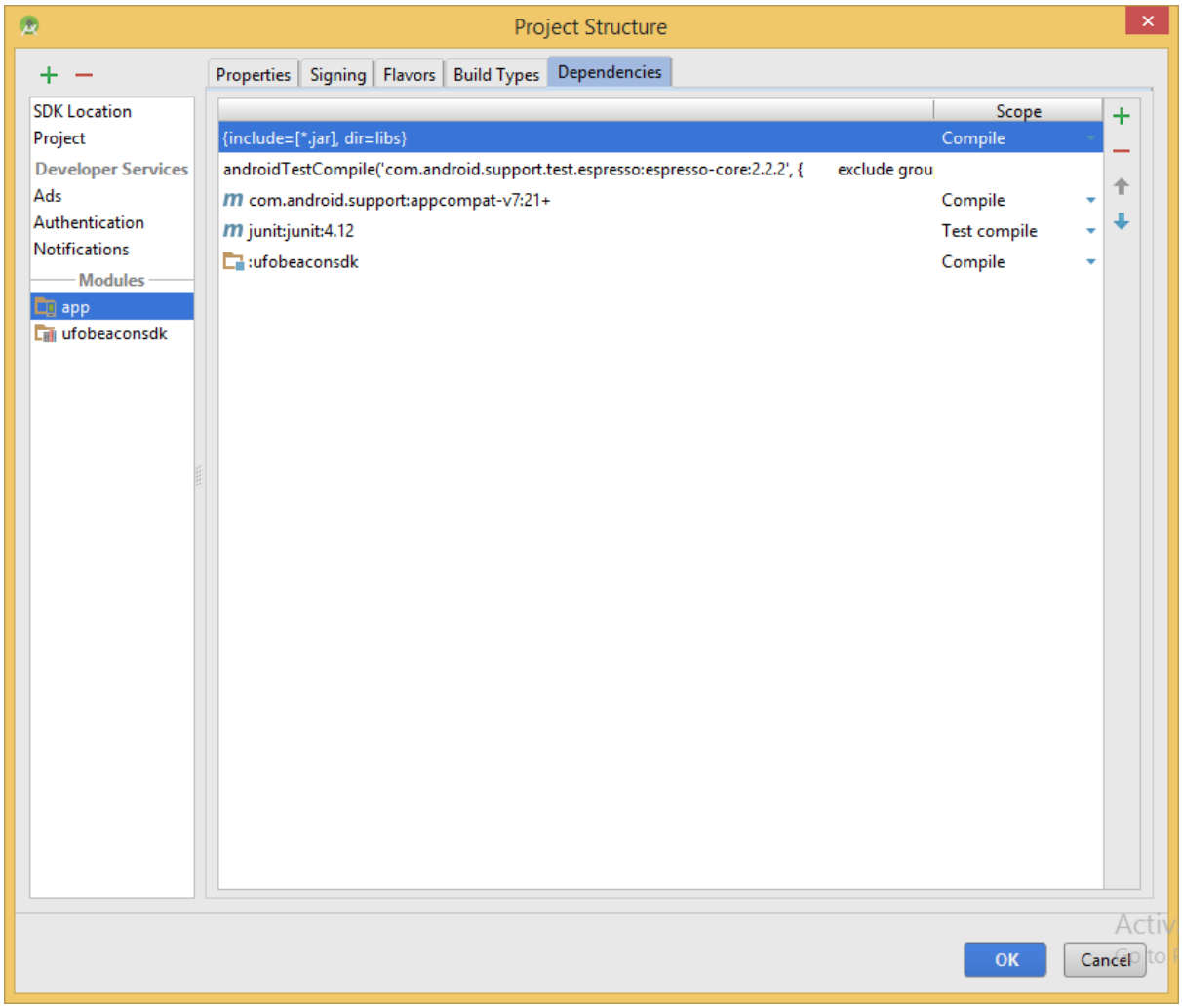


4. Select Import .JAR/.AAR Package from selection. It will load new screen with asking for selecting path of .JAR/.AAR. Here select the path where the .AAR file is located.



5. Once selected path of .AAR file select the finish. Now again go to “File-> Project structure”. Select the “app” from left side below “Modules”.
6. Now click on “Dependencies” from tab and select “+” icon and from that select the choose module.

7. One the Ufobeaconsdk is selected the screen should be look as below.



8. The ufosdk configuration is completed now you can access the UFOBeaconManager as below.

Classes

1. UFOBeaconManager

UFOBeaconManager is a main class of the library. It allows you to scan nearby UFO devices.

Methods of UFOBeaconManager:

1. startScan(OnScanSuccessListener onScanSuccessListener, OnFailureListener onFailureListener)
2. stopScan(OnSuccessListener onSuccessListener, OnFailureListener onFailureListener)
3. isBluetoothEnabled(OnSuccessListener onSuccessListener, OnFailureListener onFailureListener)
4. enable(OnSuccessListener onSuccessListener, OnFailureListener onFailureListener)
5. isLocationServiceEnabled(OnSuccessListener onSuccessListener, OnFailureListener onFailureListener)

Method Guide:

startScan()

It will start the scanning of nearby UFO devices and return the UFODevice object of the founded UFO

device in onSuccess method of OnScanSuccessListener. If any error found then it will return the error message with error code in onFailure method of OnFailureListener.

Note:- Make sure Bluetooth is enabled and Location service enabled if Android OS >= 6.0 otherwise it will return an error in failure listener.

Parameters:

1:- OnScanSuccessListener()

2:- OnFailureListener()

Sample code:-

```
ufoBeaconManager.startScan(new OnScanSuccessListener() {
    @Override
    public void onSuccess(final UFODevice ufodevice) {
        runOnUiThread(new Runnable() {
            @Override
            public void run() {
                    //update UI
            }
        });

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message) {
        runOnUiThread(new Runnable() {
            @Override
            public void run() {
      //update UI
            }
        });


    }
});
```

stopScan()

It will stop the scanning of nearby UFO devices and return success response in onSuccess method of OnSuccessListener. If any error found then it will return the error message with error code in onFailure method of OnFailureListener.

Parameters:

1:- OnSuccessListener()

2:- OnFailureListener()

```
ufoBeaconManager.stopScan(new OnSuccessListener() {

    @Override
    public void onSuccess(boolean isStop) {

        runOnUiThread(new Runnable() {
            @Override
            public void run() {
             // update UI
            }
        });


    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message) {
        runOnUiThread(new Runnable() {
            @Override
            public void run() {
                // update UI

            }
        });
    }
});
```

isBluetoothEnabled()

Check if Bluetooth enabled or not on device and return response in onSuccess method of OnSuccessListener. If any error found then it will return the error message with error code in onFailure method of OnFailureListener.

Parameters:

1:- OnSuccessListener()
2:- OnFailureListener()

```
ufoBeaconManager.isBluetoothEnabled(new OnSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {
        // if isEnabled true then BT is enabled else disabled

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(int code, String message) {
        // ask to turn on Bluetooth
      }
});
```

isLocationServiceEnabled() // Required to check only for Android 6.0 and above

Check if Location Service is enabled or not on device and return response in onSuccess method of OnSuccessListener. If any error found then it will return the error message with error code in onFailure method of OnFailureListener.

Parameters:

1:- OnSuccessListener()

2:- OnFailureListener()

```
ufoBeaconManager.isLocationServiceEnabled(new OnSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(int code, String message) {

    }
});
```

enableBluetooth()

Enable Bluetooth on device and return response in onSuccess method of OnSuccessListener. If any error found then it will return the error message with error code in onFailure method of OnFailureListener.

Parameters:

1:- OnSuccessListener()

2:- OnFailureListener()

Sample code:-

```
        ufoBeaconManager.enable(new OnSuccessListener() {

            @Override
            public void onSuccess(boolean isEnabled) {

             runOnUiThread(new Runnable() {
                    @Override
                    public void run() {
                        // if isEnabled true then BT is enabled else
disabled
                    }
                });

            }
        }, new OnFailureListener() {
            @Override
            public void onFailure(int code, String message) {

             runOnUiThread(new Runnable() {
                    @Override
                    public void run() {

                        // print error message in logs or toast.
                    }
                });


            }
        });
```

Connect with UFO device.

To connect with UFO device we must have the “ufodevice” object return by the “OnScanSuccessListener”.

```
ufodevice.connect(new OnConnectSuccessListener() {
    @Override
    public void onSuccess(UFODevice ufoDevice) {
        // return then same ufo device object with successfully
connection with device.
    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message) {

        runOnUiThread(new Runnable() {
            @Override
            public void run() {
            // print error message in logs or toast.

            }
          }
      });
```

- **To verify the device type return by the UFO device use the below condition.**

```
if (ufodevice != null && ufodevice.getDeviceType() ==
UFODeviceType.IBEACON)// its iBeacon model
```

or

```
if (ufodevice != null && ufodevice.getDeviceType() ==
UFODeviceType.EDDYSTONE)// its Eddystone model
```

- If device type is eddystone then verify the differnet frame type use below condition.

```
ufodevice.getEddystoneType() == EddystoneType.EDDYSTONE_UID_URL_TLM
                or
ufodevice.getEddystoneType() == EddystoneType.EDDYSTONE_UID_TLM
                or
ufodevice.getEddystoneType() == EddystoneType.EDDYSTONE_URL_TLM
                or
ufodevice.getEddystoneType() == EddystoneType.EDDYSTONE_UID
                or
ufodevice.getEddystoneType() == EddystoneType.EDDYSTONE_URL
                or
ufodevice.getEddystoneType() == EddystoneType.EDDYSTONE_TLM
```

Write Password to UFO device:

To write password to device for iBeacon just pass the string variable to "setPasswrod" Method. If password is correct then "OnBeaconSuccessListener" will be called.

```
ufodevice.setPassword(password, new OnBeaconSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {


    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message) {

        runOnUiThread(new Runnable() {
            @Override
            public void run() {
                  // print error message in logs or toast.
            }
        });
    }
});
```

To Configure the iBeacon UFO device below parameter is used to set the UUID, Major and Minor Value.

1> For UUID

```
ufodevice.setiBeaconProximityUUID(String UUID,new
OnBeaconSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message) {

    }
});
```

2> For Major

```
ufodevice.setiBeaconMajor(int Major, new OnBeaconSuccessListener()
{
    @Override
    public void onSuccess(boolean isSuccess) {

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message) {

    }
});
```

3> For Minor

```
ufodevice.setiBeaconMinor(int Minor, new
OnBeaconSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message)
{

    }
});
```

4> **For iBeacon TxPower**

```
ufodevice.setiBeaconTxPower(int TxPower, new
OnBeaconSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message)
{

    }
});
```

5> For iBeacon Advertisement Interval

```
ufodevice.setiBeaconAdvertisementInterval(int
AdvertiseInterval), new OnBeaconSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message)
     {

    }
});
```

To configure the Eddystone UFO Beacon device below parameter is used to set the different parameter based on frame.

1> To set the URI Flag

```
ufodevice.setEddystoneFrames(EddystoneType eddystoneType
, new OnBeaconSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message)
{

    }
});
```

2> To set the URL

```
ufodevice.setEddystoneURI(String url, new
OnBeaconSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message)
{

    }
});
```

3> To set the UID

```
ufodevice.setEddystoneUID(String namespaceId, String instanceId,
new OnBeaconSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(final int code, final String message)
{

    }
});
```

4> To set Eddystone TxPower

```
ufodevice.setEddystoneTxPower(int TxPower, new
OnBeaconSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(int code, String message) {

    }
});
```

5> To set Eddystone Advertisement Interval

```
ufodevice.setEddystoneAdvertisementInterval
 (int advertiseMent, new OnBeaconSuccessListener() {
    @Override
    public void onSuccess(boolean isSuccess) {

    }
}, new OnFailureListener() {
    @Override
    public void onFailure(int code, String message) {

    }
});
```