

***TY's Terminal App for Android™  
Source code Document***

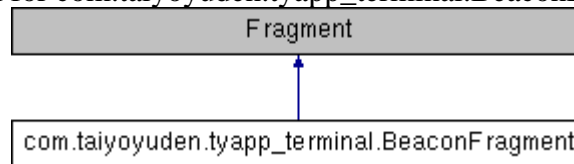
Version 4.2

May-2020

## Class Documentation

### com.taiyoyuden.tyapp\_terminal.BeaconFragment Class Reference

Inheritance diagram for com.taiyoyuden.tyapp\_terminal.BeaconFragment:



### Classes

class **CustomAdapter**

*This class extends the BaseAdapter to hold a list of Bluetooth devices discovered during scanning. New devices are allocated a 'device' layout which is populated and added to the list.*

### Public Member Functions

View **onCreateView** (LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState)

void **updateBeacons** (ArrayList< Beacon > beacons)

### Private Attributes

String **TAG** = "Beacon Fragment"

**CustomAdapter deviceAdapter**

ArrayList< Beacon > **beaconList**

AdapterView.OnItemClickListener **listenerItemSelected**

## Member Data Documentation

### AdapterView.OnItemClickListener

com.taiyoyuden.tyapp\_terminal.BeaconFragment.listenerItemSelected [private]

```

Initial value:= new AdapterView.OnItemClickListener() {
    @Override
    public void onItemClick(AdapterView<?> parent, View view, int position, long
id) {
        final Beacon device = beaconList.get(position);
        Log.d(TAG, "Device " + device.getName() + " selected");

        switch (parent.getId()){
            case R.layout.tyd_beacon:
                break;
            case R.layout.beacon_device:
                Toast.makeText(getActivity().getApplicationContext(), "Connecting
to beacons is not allowed",Toast.LENGTH_SHORT).show();
                break;
        }
    }
}
  
```

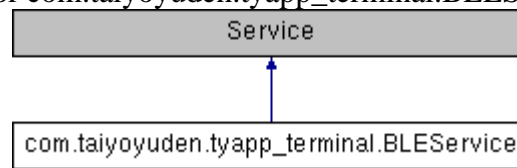
The documentation for this class was generated from the following file:

app/src/main/java/com/taiyoyuden/tyapp\_terminal/BeaconFragment.java



## com.taiyoyuden.tyapp\_terminal.BLEService Class Reference

Inheritance diagram for com.taiyoyuden.tyapp\_terminal.BLEService:



### Classes

class **LocalBinder**

### Public Member Functions

IBinder **onBind** (Intent intent)  
 boolean **onUnbind** (Intent intent)  
 boolean **initialiseService** ()  
 void **startScan** (final ScanCallback scanCallback)  
 void **stopScan** (final ScanCallback scanCallback)  
 BluetoothGatt **connectToDevice** (String address)  
 void **disconnectDevice** ()  
 BluetoothGatt **getGattInstance** ()  
 List< BluetoothGattService > **getServices** ()  
 BluetoothGattService **getService** (UUID uuid)

### Static Public Attributes

static final String **ACTION\_GATT\_CONNECTED**  
*Intent on successful connection to GATT server hosted on remote device.*

static final String **ACTION\_GATT\_DISCONNECTED**  
*Intent broadcast when remote GATT server is no longer connected.*

static final String **ACTION\_GATT\_SERVICES**  
*Intent broadcast when remote device service discovery is finished.*

static final String **ACTION\_DATA\_RECEIVED**  
*Intent broadcast on data received from remote device.*

static final String **ACTION\_DESCRIPTOR\_WROTE**  
*Intent broadcast when descriptor wrote.*

### Private Attributes

BluetoothAdapter **mBluetoothAdapter**  
 BluetoothGatt **mBluetoothGatt**  
 ScanSettings **settings**  
 BluetoothLeScanner **mLEScanner**  
 List< ScanFilter > **filterList**  
 IBinder **mBinder** = new **LocalBinder**()  
 final BluetoothGattCallback **mGattCallback**

### Static Private Attributes

static final String **TAG** = "BLE Service"

## Detailed Description

Background service for interfacing with Bluetooth radio. Provides a number of functions related to BLE device discovery and connection.

### Date

10/18/2016

## Member Function Documentation

### BluetoothGatt com.taiyoyuden.tyapp\_terminal.BLEService.connectToDevice (String address) [inline]

Connect to the remote device at the specified address

#### Parameters

<i>address</i>	MAC identifier of the device to connect to
----------------	--

#### Returns

Bluetooth Gatt instance for accessing device specific methods

### void com.taiyoyuden.tyapp\_terminal.BLEService.disconnectDevice () [inline]

Disconnect from the currently connected device

### BluetoothGatt com.taiyoyuden.tyapp\_terminal.BLEService.getGattInstance () [inline]

Get an instance of the currently connected device GATT

#### Returns

Bluetooth Gatt instance for accessing device specific methods

### BluetoothGattService com.taiyoyuden.tyapp\_terminal.BLEService.getService (UUID uuid) [inline]

Get the peripheral service associated with a specific UUID

#### Parameters

<i>uuid</i>	UUID of the service to retrieve
-------------	---------------------------------

#### Returns

BluetoothGattService, or null if not present on peripheral

### List<BluetoothGattService> com.taiyoyuden.tyapp\_terminal.BLEService.getServices () [inline]

Get a list of discovered services for the currently connected peripheral

#### Returns

List of services associated with the connected peripheral

### boolean com.taiyoyuden.tyapp\_terminal.BLEService.initialiseService () [inline]

Service initialisation. Acquires Bluetooth components and checks hardware states.

#### Returns

False if a component is not available

**IBinder com.taiyoyuden.tyapp\_terminal.BLEService.onBind (Intent *intent*) [inline]**

Function called when application binds to this service

**Parameters**

<i>intent</i>	Explicit intent referencing this class
---------------	--

**Returns**

Binder to this service

**boolean com.taiyoyuden.tyapp\_terminal.BLEService.onUnbind (Intent *intent*) [inline]**

Function called when application unbinds from this service. Service will be destroyed if no more connections are present.

**Parameters**

<i>intent</i>	Explicit intent referencing this class
---------------	--

**void com.taiyoyuden.tyapp\_terminal.BLEService.startScan (final ScanCallback *scanCallback*) [inline]**

Initiates scanning for discoverable Bluetooth devices. No timeout.

**Parameters**

<i>scanCallback</i>	Callback object to notify on device discovery
---------------------	---

**void com.taiyoyuden.tyapp\_terminal.BLEService.stopScan (final ScanCallback *scanCallback*) [inline]**

Stop a previously initiated scan.

**Parameters**

<i>scanCallback</i>	Callback object used to initiate scan
---------------------	---------------------------------------

**Member Data Documentation****final BluetoothGattCallback****com.taiyoyuden.tyapp\_terminal.BLEService.mGattCallback [private]**

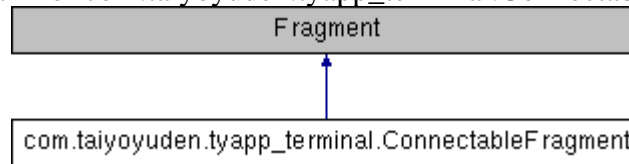
Callback for GATT events (device specific). Broadcasts intents to application.

The documentation for this class was generated from the following file:

app/src/main/java/com/taiyoyuden/tyapp\_terminal/BLEService.java

## com.taiyoyuden.tyapp\_terminal.ConnectableFragment Class Reference

Inheritance diagram for com.taiyoyuden.tyapp\_terminal.ConnectableFragment:



### Classes

class **CustomAdapter**

*This class extends the BaseAdapter to hold a list of Bluetooth devices discovered during scanning. New devices are allocated a 'device' layout which is populated and added to the list.*

### Public Member Functions

View **onCreateView** (LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState)  
 void **updateConnectable** (ArrayList< BluetoothDevice > newdevices, HashMap< String, Integer > newrssi)

### Private Attributes

String **TAG** = "Connectable Fragment"  
 ArrayList< BluetoothDevice > **deviceList**  
 CustomAdapter **deviceAdapter**  
 HashMap< String, Integer > **RSSI**  
 AdapterView.OnItemClickListener **listenerItemSelected**

### Member Data Documentation

AdapterView.OnItemClickListener

com.taiyoyuden.tyapp\_terminal.ConnectableFragment.listenerItemSelected [private]

```

Initial value:= new AdapterView.OnItemClickListener() {
    @Override
    public void onItemClick(AdapterView<?> parent, View view, int position, long
id) {
        final BluetoothDevice device = deviceList.get(position);
        Log.d(TAG, "Device " + device.getName() + " selected");
        ((DeviceSelection) getActivity()).connectDevice(device.getAddress());
    }
}
  
```

The documentation for this class was generated from the following file:

app/src/main/java/com/taiyoyuden/tyapp\_terminal/ConnectableFragment.java

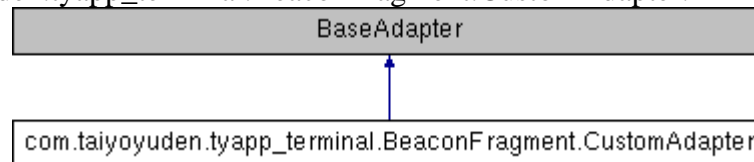
---

## com.taiyoyuden.tyapp\_terminal.BeaconFragment.CustomAdapter Class Reference

This class extends the BaseAdapter to hold a list of Bluetooth devices discovered during scanning. New devices are allocated a 'device' layout which is populated and added to the list.

Inheritance diagram for

com.taiyoyuden.tyapp\_terminal.BeaconFragment.CustomAdapter:



### Public Member Functions

int **getItemViewType** (int position)  
 int **getViewTypeCount** ()  
 Beacon **getItem** (int position)  
 long **getItemId** (int position)  
 int **getCount** ()  
 View **getView** (final int position, View convertView, ViewGroup parent)

### Private Member Functions

void **parseiBeaconData** (byte[] data)  
 void **parseTYDBeaconData** (byte[] data)  
 short **parseBytesToInt\_LittleEndian** (byte[] unparsed)

### Private Attributes

Context **context**  
 List< Beacon > **deviceList**  
 String **P\_UUID**  
 String **Major**  
 String **Measured\_power**  
 short **typeId**

---

### Detailed Description

This class extends the BaseAdapter to hold a list of Bluetooth devices discovered during scanning. New devices are allocated a 'device' layout which is populated and added to the list.

---

The documentation for this class was generated from the following file:

app/src/main/java/com/taiyoyuden/tyapp\_terminal/BeaconFragment.java



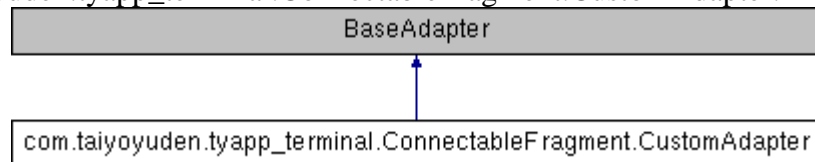
---

## com.taiyoyuden.tyapp\_terminal.ConnectableFragment.CustomAdapter Class Reference

This class extends the BaseAdapter to hold a list of Bluetooth devices discovered during scanning. New devices are allocated a 'device' layout which is populated and added to the list.

Inheritance diagram for

com.taiyoyuden.tyapp\_terminal.ConnectableFragment.CustomAdapter:



### Public Member Functions

BluetoothDevice **getItem** (int position)  
 long **getItemId** (int position)  
 int **getItemCount** ()  
 View **getView** (final int position, View convertView, ViewGroup parent)

### Private Attributes

Context **context**  
 List< BluetoothDevice > **deviceList**

---

### Detailed Description

This class extends the BaseAdapter to hold a list of Bluetooth devices discovered during scanning. New devices are allocated a 'device' layout which is populated and added to the list.

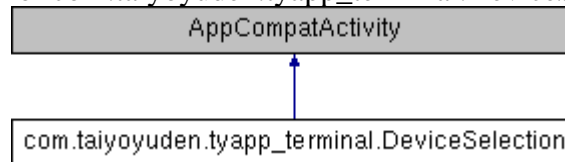
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The documentation for this class was generated from the following file:

app/src/main/java/com/taiyoyuden/tyapp\_terminal/ConnectableFragment.java

## com.taiyoyuden.tyapp\_terminal.DeviceSelection Class Reference

Inheritance diagram for com.taiyoyuden.tyapp\_terminal.DeviceSelection:



### Classes

class **MyPagerAdapter**

### Public Member Functions

void **onRequestPermissionsResult** (int requestCode, String[] permissions, int[] grantResults)  
 void **connectDevice** (String address)

### Static Public Attributes

static final String **REQUEST\_ENABLE\_BT\_DENIED**  
*Status notifying that user declined to enable Bluetooth service.*

### Protected Member Functions

void **onCreate** (Bundle savedInstanceState)  
*Initialises UI components, performs a permissions check and binds to BLE service class.*

void **onStart** ()  
 void **onResume** ()  
*Checks state of Bluetooth radio and resumes scanning for BLE devices.*

void **onPause** ()  
*Halts BLE scanning while activity is not running in the foreground.*

void **onDestroy** ()  
 void **onActivityResult** (int requestCode, int result, Intent data)

### Private Member Functions

void **bindToService** ()  
 void **StartScanning** ()  
 void **StopScanning** ()  
 boolean **checkiBeacon** (byte[] scanRecord)  
 boolean **checkTYDBeacon** (ScanRecord scanRecord)  
 boolean **checkBeaconCondition** (ScanRecord scanRecord)  
 void **addDevice** (BluetoothDevice device, int rssi)  
*Add a newly discovered device to the list so it can be displayed on the UI. Updates devices already present.*

void **addBeacon** (BluetoothDevice device, byte[] beacondata, int rssi, int type)  
 boolean **checkPermissions** ()  
*Checks if the user has previously accepted permissions request for this application. If not a dialog window is displayed to request permission to access location services.*

boolean **isBluetoothEnabled** ()

*Check state of Bluetooth system service to ensure connection is still valid.*

boolean **isLocationEnabled** ()

*Check state of Location system service to allow scanning (req'd in API >=23 - Marshmallow)*

## Private Attributes

**BLEService mService**

ArrayList< BluetoothDevice > **connectabledeviceList**

ArrayList< Beacon > **beaconsList**

HashMap< String, Integer > **RSSI**

ViewPager **vpPager**

FragmentManagerAdapter **adapterViewPager**

**ConnectableFragment connectable**

**BeaconFragment beacon**

boolean **requestBluetooth** = false

boolean **bindService** = false

boolean **permissionAccepted** = false

BroadcastReceiver **HardwareStatusReceiver**

ServiceConnection **mServiceConnection**

ScanCallback **mScanCallback**

## Static Private Attributes

static final String **TAG** = "TerminalApp"

static final int **PERMISSION\_REQUEST\_COARSE\_LOCATION** = 0

static final int **REQUEST\_ENABLE\_BT** = 1

static final int **REQUEST\_OPEN\_TERMINAL** = 2

static final int **REQUEST\_ENABLE\_LOCATION** = 3

static final short[] **ibeacon\_prefix** = {0x02,0x01,0x06,0x1A,0xff,0x4C,0x00,0x02,0x15}

## Detailed Description

Main application activity launched at runtime. This activity connects to the **BLEService** and initiates scanning for Bluetooth Low Energy compatible devices. Discovered devices will appear as selectable items on the application UI, selection of a device will launch the **Terminal** activity.

Activity will prompt user for permission to access location on first launch of application (necessary due to known Android bug requiring location permission for background BLE scanning). Activity will request for enabling Bluetooth system service if it is disabled. Not accepting this request will exit the application.

### Date

10/18/2016

## Member Function Documentation

**void com.taiyoyuden.tyapp\_terminal.DeviceSelection.addDevice (BluetoothDevice device, int rssi) [inline], [private]**

---

Add a newly discovered device to the list so it can be displayed on the UI. Updates devices already present.

#### Parameters

<i>device</i>	Bluetooth device to add/update
<i>rsssi</i>	Signal strength of device

#### **boolean com.taiyoyuden.tyapp\_terminal.DeviceSelection.checkBeaconCondition (ScanRecord scanRecord)[inline], [private]**

Verifies that is a valid beacon. It's valid if it has manufacturer data and its UUID corresponds to TY's UUID beacons

#### Parameters

<i>scanRecord</i>	The device record data
-------------------	------------------------

#### Returns

true if it's a valid beacon, false otherwise

#### **boolean com.taiyoyuden.tyapp\_terminal.DeviceSelection.checkPermissions ()[inline], [private]**

Checks if the user has previously accepted permissions request for this application. If not a dialog window is displayed to request permission to access location services.

#### Note

Required as of API level 23

#### **boolean com.taiyoyuden.tyapp\_terminal.DeviceSelection.isBluetoothEnabled ()[inline], [private]**

Check state of Bluetooth system service to ensure connection is still valid.

#### Returns

True if okay, false if we have to make a request

#### **boolean com.taiyoyuden.tyapp\_terminal.DeviceSelection.isLocationEnabled ()[inline], [private]**

Check state of Location system service to allow scanning (req'd in API >=23 - Marshmallow)

#### Returns

True if okay, false if we have to make a request

#### **void com.taiyoyuden.tyapp\_terminal.DeviceSelection.onRequestPermissionsResult (int requestCode, String[] permissions, int[] grantResults)[inline]**

Handles results of permission requests

#### Parameters

<i>requestCode</i>	Value used to request permission dialog
--------------------	---

<i>permissions</i>	List of permissions requested from user
<i>grantResults</i>	Results of each permission request

## Member Data Documentation

### BroadcastReceiver

#### com.taiyoyuden.tyapp\_terminal.DeviceSelection.HardwareStatusReceiver [private]

```
Initial value:= new BroadcastReceiver() {
    @Override
    public void onReceive(Context context, Intent intent) {
        switch (intent.getAction()) {

            case BluetoothAdapter.ACTION_STATE_CHANGED:
            case LocationManager.PROVIDERS_CHANGED_ACTION:
                StartScanning();
                break;

        }
    }
}
```

Receiver for BluetoothAdapter state changes (Bluetooth service enabled/disabled)

### ServiceConnection

#### com.taiyoyuden.tyapp\_terminal.DeviceSelection.mServiceConnection [private]

```
Initial value:= new ServiceConnection() {

    public void onServiceConnected(ComponentName className, IBinder rawBinder) {
        mService = ((LocalBinder) rawBinder).getService();
        Log.d(TAG, "onServiceConnected mService= " + mService);
        bindService = true;

        if (!mService.initialiseService()) {
            finish();
        } else {
            StartScanning();
        }
    }

    public void onServiceDisconnected(ComponentName classname) {
        Log.d(TAG, "onServiceDisconnected");
        StopScanning();
        mService = null;
        bindService = false;
    }
}
```

The documentation for this class was generated from the following file:

app/src/main/java/com/taiyoyuden/tyapp\_terminal/DeviceSelection.java

## **com.taiyoyuden.tyapp\_terminal.Terminal.EOL\_TYPE Enum Reference**

### **Public Attributes**

**None**  
**CR**  
**LF**  
**CRLF**

---

The documentation for this enum was generated from the following file:  
app/src/main/java/com/taiyoyuden/tyapp\_terminal/Terminal.java

## **com.taiyoyuden.tyapp\_terminal.Terminal.FORMAT Enum Reference**

### **Public Attributes**

**Ascii**

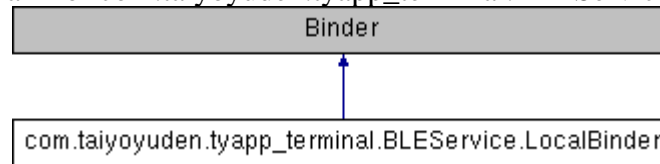
**Hex**

---

The documentation for this enum was generated from the following file:  
app/src/main/java/com/taiyoyuden/tyapp\_terminal/Terminal.java

## com.taiyoyuden.tyapp\_terminal.BLEService.LocalBinder Class Reference

Inheritance diagram for com.taiyoyuden.tyapp\_terminal.BLEService.LocalBinder:



---

### Detailed Description

Custom binder class for connecting to this service

---

The documentation for this class was generated from the following file:  
app/src/main/java/com/taiyoyuden/tyapp\_terminal/BLEService.java

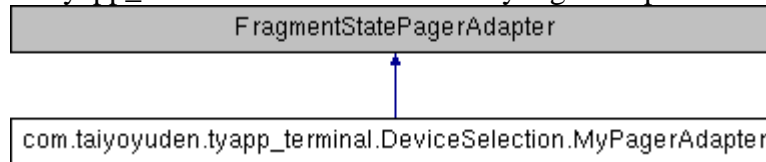


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## com.taiyoyuden.tyapp\_terminal.DeviceSelection.MyPagerAdapter Class Reference

Inheritance diagram for

com.taiyoyuden.tyapp\_terminal.DeviceSelection.MyPagerAdapter:



### Public Member Functions

**MyPagerAdapter** (FragmentManager fragmentManager, Context context)

int **getCount** ()

Fragment **getItem** (int position)

CharSequence **getPageTitle** (int position)

Object **instantiateItem** (ViewGroup container, int position)

int **getItemPosition** (Object object)

### Private Attributes

int **NUM\_ITEMS** = 2

HashMap< Integer,Fragment > **registeredFragments** = new HashMap<>()

String[] **tabTitles** = {"Connectable", "Beacons"}

Context **context**

---

### Detailed Description

ViewPager Class for the fragments

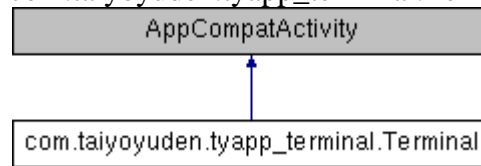
---

The documentation for this class was generated from the following file:

app/src/main/java/com/taiyoyuden/tyapp\_terminal/DeviceSelection.java

## com.taiyoyuden.tyapp\_terminal.Terminal Class Reference

Inheritance diagram for com.taiyoyuden.tyapp\_terminal.Terminal:



### Classes

enum **EOL\_TYPE**  
 enum **FORMAT**  
 class **QueueAdapter**

### Static Public Attributes

static final UUID **TY\_SERVICE\_UUID** = UUID.fromString("442F1570-8A00-9A28-CBE1-E1D4212D53EB")  
 static final UUID **NOTIFICATION\_CHARACTERISTIC\_UUID** =  
 UUID.fromString("442F1571-8A00-9A28-CBE1-E1D4212D53EB")  
 static final UUID **WRITE\_NO\_RESPONSE\_CHARACTERISTIC\_UUID** =  
 UUID.fromString("442F1572-8A00-9A28-CBE1-E1D4212D53EB")  
 static final UUID **INDICATION\_CHARACTERISTIC\_UUID** = UUID.fromString("442F1573-  
 8A00-9A28-CBE1-E1D4212D53EB")  
 static final UUID **BATTERY\_SERVICE\_UUID** = UUID.fromString("0000180f-0000-1000-  
 8000-00805f9b34fb")  
 static final UUID **BATTERY\_LEVEL\_UUID** = UUID.fromString("00002a19-0000-1000-8000-  
 00805f9b34fb")

### Protected Member Functions

void **onCreate** (Bundle savedInstanceState)

*Initialises UI (partial until device connection succeeds) and connects to the BLE service.*

void **onResume** ()

*Checks the status of the Bluetooth adapter and device connection before resuming activity.*

void **onDestroy** ()

*Unregisters receivers and unbinds from BLE service.*

void **onActivityResult** (int requestCode, int result, Intent data)

*Checks the result of user request to enable Bluetooth system service.*

### Private Member Functions

void **showFormatSelect** ()

void **showEOLSelect** ()

void **pageInit** ()

void **sendMessage** (String message)

*Handles delivery of message to connected device.*

byte[] **ascii2hex** (byte[] bytes)

*Converts a byte array of ascii to hexadecimal.*

---

```
byte[] hex2string (byte[] bytes)
Converts a byte array of hexadecimal values to characters.
```

```
byte getValidHex (byte b)
void printMessageToScreen (String message)
Adds a message to the adapter and updates the display.
```

```
void checkBluetoothEnabled ()
Check state of Bluetooth system service to ensure connection is still valid.
```

## Private Attributes

```
final String TAG = "TerminalWindow"
final int MAX_MESSAGE_COUNT = 20
String rxMessage
Handler mHandler =new Handler()
ListView messagePane
QueueAdapter messageAdapter
ArrayList< String > messageLog
ArrayList< Character > direction
ArrayAdapter< CharSequence > inputFormatSelector
BluetoothGatt mBluetoothGatt
BLEService mService
BluetoothDevice device
BluetoothGattService TaiyoYudenService
BluetoothGattService BatteryService
BluetoothGattCharacteristic NotificationChar
BluetoothGattCharacteristic WriteChar
BluetoothGattCharacteristic IndicationChar
BluetoothGattCharacteristic batteryLevelChar
ServiceConnection mServiceConnection
View.OnClickListener menu_click_listener
PopupMenu.OnMenuItemClickListener menu_item_click_listener
```

## Static Private Attributes

```
static final int REQUEST_ENABLE_BT = 1
static final String ACTION_TX_FINISHED =
"com.taiyoyuden.tyapp_terminal.ACTION_TX_FINISHED"
static final String ACTION_TX_ERROR =
"com.taiyoyuden.tyapp_terminal.ACTION_TX_ERROR"
static FORMAT input_format = FORMAT.Ascii
static EOL_TYPE eol_type = EOL_TYPE.None
static final UUID CCCD = UUID.fromString("00002902-0000-1000-8000-00805f9b34fb")
```

---

## Detailed Description

This class presents a terminal-style UI to allow users to send and receive characters via BLE to a remote device running the Taiyo Yuden terminal firmware. Device connection and service discovery take place on activity launch. Connection succeeds only if the device reports the Taiyo Yuden specific service and characteristic UUIDs. Users may select the input format type using the selection box (default: Ascii) or exit the terminal and return to the device selection screen using the 'Back' button. The activity also finishes if a GATT disconnection intent is received

**Date**

10/18/2016

**Member Function Documentation**

**byte [] com.taiyoyuden.tyapp\_terminal.Terminal.ascii2hex (byte[] bytes)[inline], [private]**

Converts a byte array of ascii to hexadecimal.

**Parameters**

<i>bytes</i>	byte array of ascii
--------------	---------------------

**Returns**

Hex formatted string

**byte com.taiyoyuden.tyapp\_terminal.Terminal.isValidHex (byte b)[inline], [private]**

Checks if a character is a valid hexadecimal character

**Parameters**

<i>b</i>	Hexadecimal value
----------	-------------------

**Returns**

Ascii value of character, 0xFE if special character, 0xFF if invalid

**byte [] com.taiyoyuden.tyapp\_terminal.Terminal.hex2string (byte[] bytes)[inline], [private]**

Converts a byte array of hexadecimal values to characters.

**Parameters**

<i>bytes</i>	Byte array of hex values
--------------	--------------------------

**Returns**

Ascii formatted string

**void com.taiyoyuden.tyapp\_terminal.Terminal.pageInit () [inline], [private]**

Initialises page elements upon successful device connection

**void com.taiyoyuden.tyapp\_terminal.Terminal.sendMessageToScreen (String message)[inline], [private]**

Adds a message to the adapter and updates the display.

**Parameters**

<i>message</i>	String to display
----------------	-------------------

---



---

```
void com.taiyoyuden.tyapp_terminal.Terminal.sendMessage (String  
message)[inline], [private]
```

Handles delivery of message to connected device.

#### Parameters

<i>message</i>	Message to transmit
----------------	---------------------

Message is converted to specified format (if non-Ascii) and transmitted to remote device using WriteChar characteristic. As BLE can only handle 20 byte data payloads, this function handles delivery of sequential packets until entire message is successfully transmitted. The selected line endings will be appended prior to transmission

#### Note

This function is called on a non-UI thread to avoid blocking user interaction.

```
void com.taiyoyuden.tyapp_terminal.Terminal.showEOLSelect () [inline], [private]
```

Show an AlertDialog to select the EOL character (None, CR, LF, CRLF)

```
void com.taiyoyuden.tyapp_terminal.Terminal.showFormatSelect () [inline],  
[private]
```

Show an AlertDialog to select the data format (Ascii, Hex)

---

## Member Data Documentation

### View.OnClickListener

```
com.taiyoyuden.tyapp_terminal.Terminal.menu_click_listener [private]
```

```
Initial value:= new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        PopupMenu popup = new PopupMenu(getApplicationContext(), view);  
        popup.setOnMenuItemClickListener(menu_item_click_listener);  
        MenuInflater inflater = popup.getMenuInflater();  
        inflater.inflate(R.menu.menu_items, popup.getMenu());  
        popup.getMenu().getItem(0).setTitle("Format: " + input_format.name());  
        popup.getMenu().getItem(1).setTitle("EOL: " + eol_type.name());  
        popup.show();  
    }  
}
```

### PopupMenu.OnMenuItemClickListener

```
com.taiyoyuden.tyapp_terminal.Terminal.menu_item_click_listener [private]
```

```
Initial value:= new PopupMenu.OnMenuItemClickListener() {  
    @Override  
    public boolean onOptionsItemSelected(MenuItem menuItem) {  
        switch (menuItem.getItemId()) {  
            case R.id.opt_clear:  
  
                messageAdapter.clearMessages();  
                return true;  
            case R.id.opt_inputformat:  
  
                showFormatSelect();  
                return true;  
            case R.id.opt_eolselect:  
                showEOLSelect();  
                return true;  
            default:  
                return false;  
        }  
    }  
}
```

```
}  
}
```

**ServiceConnection**

**com.taiyoyuden.tyapp\_terminal.Terminal.mServiceConnection [private]**

Interface to BLE service, registers receiver for GATT events (device connection, service discovery etc.) and requests connection to device. If connection fails the activity is terminated.

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**The documentation for this class was generated from the following file:**

app/src/main/java/com/taiyoyuden/tyapp\_terminal/Terminal.java

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**Note:**

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