

Receivers Tutorial

There are three types of receivers in SWAT:

- Content receiver – receives updates of the current content of the screen;
- Notification receiver – receives all notifications;
- IO receiver – allows you to monitor any system internal device;

These interfaces are available in `mswat.interfaces`. These interfaces share a common structure.

To receive updates you need to:

1. Create a class that implements one of the interfaces in `mswat.interface`
2. Implement the interface methods
 - a. `register[type]Receiver`– this method is meant to register the receiver in the system. To do so use “`CoreController.register[type](this);`” as shown in the figure below;

```
@Override
public int registerIOReceiver() {
    return CoreController.registerIOReceiver(this);
}
```

- b. `onUpdate[type]` – this method will receive all the updates from the system. Depending on the type of receiver.
3. When you start the registering process is up to you; In this example we will start when the `mswat` finish the calibration process. `Mswat` broadcasts a `init` signal when it finish the calibration/initialisation process
 - a. To do so start by extending the class `BroadCastReceiver`
 - b. Implement the class method and check for the `mswat` `init` signal
 - c. When the signal is received register the receiver as shown in the example

```
@Override
public void onReceive(Context arg0, Intent intent) {
    if (intent.getAction().equals("mswat_init")) {

        // register receiver
        registerIOReceiver();

    }
}
```

- d. Now make sure you register the `broadcastReceiver` in your Android manifest

```
<receiver
    android:name="tutorials.IOReceiverTutorial"
    android:enabled="true" >
    <intent-filter>
        <action android:name="mswat_init" />
        <action android:name="mswat_stop" />
    </intent-filter>
</receiver>
```

4. Now you will receive all the updates

We provide you with an example of each receiver in the `tutorials` package. Also each receiver has a correspondent pdf with some additional information specific to the receiver.