

NFC_UIDReader

The code shows a basic MIDlet that reads the UID of an external Tag/Transponder and displays it on the screen. (Shown at NFC Forum Developer Training, WIMA 2008 and NFC-Congress Hagenberg 2008)
Download appropriate NetBeans Project: [File:UIDReader.zip](#).

```
package at.nfcresearch.wima.examples;

// Packages for contactless Communication
import javax.microedition.contactless.ContactlessException;
import javax.microedition.contactless.DiscoveryManager;
import javax.microedition.contactless.TargetProperties;
import javax.microedition.contactless.TargetListener;
import javax.microedition.contactless.TargetType;

// Packages for GUI Stuff
import javax.microedition.lcdui.Alert;
import javax.microedition.lcdui.AlertType;
import javax.microedition.lcdui.Command;
import javax.microedition.lcdui.Display;
import javax.microedition.lcdui.Displayable;
import javax.microedition.lcdui.CommandListener;
import javax.microedition.lcdui.Form;

import javax.microedition.midlet.*;

public class UIDReader extends MIDlet implements TargetListener, CommandListener {

    // Display Stuff
    private Command exitCommand;
    private Form form;

    public UIDReader() {

        // Create the GUI
        exitCommand = new Command("Exit", Command.EXIT, 1);
        form = new Form("NFC-Research.at: UID Reader");

        form.addCommand(exitCommand);
        form.append("Touch Tag to read ID.");
        form.setCommandListener(this);

        // Registration of the TargetListener for external contactless
        // Targets (in this RFID_TAG).
        try {
            DiscoveryManager dm = DiscoveryManager.getInstance();
            dm.addTargetListener(this, TargetType.NDEF_TAG);

        } catch (ContactlessException ce) {
            displayAlert("Unable to register TargetListener: " + ce.toString(), AlertType.ERROR);
        }

    }

    public void startApp() {
        Display.getDisplay(this).setCurrent(form);
    }

    public void pauseApp() {
    }

    public void destroyApp(boolean unconditional) {
    }
}
```

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```
/**
 * Implementation of the Call-Back Function of the TargetListener
 * @param targetProperties: Array of Targets found by the Phone
 *
 */
public void targetDetected(TargetProperties[] targetProperties) {

    // in case no targets found, exit the method
    if (targetProperties.length == 0) {
        return;
    }

    // show the UID of the first tag found
    TargetProperties tmp = targetProperties[0];
    displayAlert("UID read: " + tmp.getUid(), AlertType.INFO);
}

/**
 * Implementation of the Call-Back function of the CommandListener
 * @param command: command key pressed
 * @param displayable: associated displayable Object
 */
public void commandAction(Command command, Displayable displayable) {
    if (command == exitCommand) {
        DiscoveryManager dm = DiscoveryManager.getInstance();
        dm.removeTargetListener(this, TargetType.NDEF_TAG);
        destroyApp(false);
        notifyDestroyed();
    }
}

private void displayAlert(String error, AlertType type) {
    Alert err = new Alert(form.getTitle(), error, null, type);
    Display.getDisplay(this).setCurrent(err, form);
}
}
```