Checking battery level in Java ME

Overview

This code snippet demonstrates how to retrieve the current battery level.

The application retrieves the system property `com.nokia.mid.batterylevel` which contains the current battery level (in per cent) and displays it. Note that in Series 40 platform only signed MIDlets under operator domain can retrieve this information.

Source file: BatteryLevel.java

```
import javax.microedition.lcdui.Command;
import javax.microedition.lcdui.CommandListener;
import javax.microedition.lcdui.Display;
import javax.microedition.lcdui.Displayable;
import javax.microedition.lcdui.Form;
import javax.microedition.lcdui.StringItem;
import javax.microedition.midlet.MIDlet;


public class BatteryLevel extends MIDlet implements CommandListener{

    private Display display;
    private Form form;
    private Command exitCommand;
    private Command refreshCommand;
    private StringItem level;


    /**
     * Constructor. Constructs the object and initializes displayables.
     */
    public BatteryLevel() {
        form = new Form("Battery level.");

        exitCommand = new Command("Exit", Command.EXIT, 2);
        refreshCommand = new Command("Refresh", Command.OK, 1);

        level = new StringItem("", "");
        form.append(level);

        form.addCommand(exitCommand);
        form.addCommand(refreshCommand);
        form.setCommandListener(this);

        display = Display.getDisplay(this);
        display.setCurrent(form);

        checkBatteryLevel();
    }

    /**
     * From MIDlet.
     * Called when the MIDlet is started.
     */
```


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```
    public void startApp() {
        // No implementation required.
    }

    /**
     * From MIDlet.
     * Called to signal the MIDlet to enter the Paused state.
     */
    public void pauseApp() {
        // No implementation required.
    }

    /**
     * From MIDlet.
     * Called to signal the MIDlet to terminate.
     * @param unconditional whether the MIDlet has to be unconditionally
     * terminated
     */
    public void destroyApp(boolean unconditional) {
        // No implementation required
    }

    /**
     * From CommandListener.
     * Called by the system to indicate that a command has been invoked on a
     * particular displayable.
     * @param cmd the command that was invoked
     * @param displayable the displayable where the command was invoked
     */
    public void commandAction(Command c, Displayable d) {
        if (c == refreshCommand) {
            checkBatteryLevel();
        } else if (c == exitCommand) {
            notifyDestroyed();
        }
    }

    /**
     * Called to read current battery level.
     */
    private void checkBatteryLevel() {
        String property = System.getProperty("com.nokia.mid.batterylevel");
        if (property == null) {
            level.setLabel("Error:\n");
            level.setText("Unable to retrieve current battery level.\n" +
                          "It's only available for signed midlets " +
                          "under operator domain.");
        } else {
        level.setLabel("Current battery level:");
        level.setText("\n"+property+"%");
        }
    }
}
```

Postconditions

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This code displays the current battery level in per cent.

Supplementary material

The example project and binary files are available for download at Media:BatteryLevelSource.zip and Media:BatteryLevelBinaries.zip.

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