

# Changing Bluetooth discoverability in Java ME

## Overview

This code example demonstrates how to change device discoverability using the Java ME Bluetooth API.

Discoverability mode can be set using the `LocalDevice.setDiscoverable` method. This method takes discoverability id as a parameter. This parameter must be one of the following values:

```
DiscoveryAgent.GIAC;  
DiscoveryAgent.LIAC;  
DiscoveryAgent.NOT_DISCOVERABLE;
```

More information on discoverability modes can be found in the JSR-82 specification.

## Source file: BTDiscoverabilityMode.java

```
/**  
 * Allows to select discover mode from Bluetooth device.  
 */  
private List listModes;  
/**  
 * Discoverability mode id array.  
 */  
private int[] modeArray;  
  
/**  
 * Instantiates a listModes.  
 */  
private void setupModeList() {  
    listModes = new List( "Mode list", Choice.IMPLICIT );  
  
    listModes.setSelectCommand( CHANGE_COMMAND );  
    listModes.addCommand( BACK_COMMAND );  
    listModes.setCommandListener( this );  
  
    // adding discoverability modes to the list  
    listModes.append( "GIAC", null );  
    listModes.append( "LIAC", null );  
    listModes.append( "NOT DISCOVERABLE", null );  
  
    //setting mode id array values  
    modeArray[0] = DiscoveryAgent.GIAC;  
    modeArray[1] = DiscoveryAgent.LIAC;  
    modeArray[2] = DiscoveryAgent.NOT_DISCOVERABLE;  
}  
  
/**  
 * From CommandListener.  
 * Called by the system to indicate that a command has been invoked on a  
 * particular displayable.  
 * @param command the command that was invoked  
 * @param displayable the displayable where the command was invoked  
 */  
public void commandAction(Command command, Displayable displayable) {
```

```
if (command == EXIT_COMMAND) {
    // Exit the MIDlet
    exit();
} else if (command == EXECUTE_COMMAND) {
    // Open discoverability mode list
    display.setCurrent( listModes );
} else if ( command == CHANGE_COMMAND ) {
    //get currently selected contact
    int i = listModes.getSelectedIndex();
    String item = listModes.getString( i );
    printString( "Selected mode: " + item );
    // Bringing back main form to the foreground
    display.setCurrent( mainForm );
    // Changing discoverability mode
    changeMode( i );
} else if ( command == BACK_COMMAND ) {
    display.setCurrent( mainForm );
}
}
/**
 *
 * @param modeIndex
 */
private void changeMode( int modeIndex ) {
    LocalDevice devLocal = null;
    try {
        printString( "Getting local device ..." );
        devLocal = LocalDevice.getLocalDevice();
    } catch ( BluetoothStateException e ) {
        printString( e.toString() );
        return;
    }
    try {
        printString( "Changing discoverability mode" );
        devLocal.setDiscoverable( modeArray[ modeIndex ] );
    } catch ( BluetoothStateException e ) {
        printString( e.toString() );
        return;
    }
    printString( "Discoverability mode changed." );
}
```

## Postconditions

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When the MIDlet is started, the main form with a text field will be displayed. To change the current bluetooth device mode, you should press the 'Modes' softkey, which displays a list of available modes.

When the list appears, select a specific mode and press the 'Change' softkey. The main form will be brought to the foreground. If the discoverability mode change procedure is successful, a 'Discoverability mode changed' message will appear.

