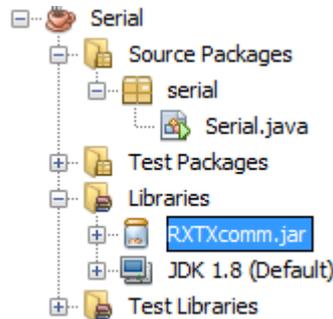


Permasalahan Praktikum RFID

Membuat aplikasi untuk membaca RFID menggunakan komunikasi serial

1. Buat project Java menggunakan Netbeans
2. Import library RXTXcomm.jar



3. Buat program seperti di bawah ini

```
1 package serial;
2
3 /**
4  * Program Komunikasi Serial
5  * By Ahmad Zainudin
6  */
7 import java.io.*;
8 import java.util.*;
9 import gnu.io.*;
10
11 public class Serial {
12     static Enumeration portList;
13     static CommPortIdentifier portId;
14     static String messageString = "Hello Word!";
15     static SerialPort serialPort;
16     static OutputStream outputStream;
17     static boolean outputBufferEmptyFlag = false;
18     static InputStream input;
19
20     public static void main(String[] args) throws IOException{
21         boolean portFound = false;
22         String defaultPort = "COM3";
23
24         if(args.length > 0){
25             defaultPort = args[0];
26         }
27         portList = CommPortIdentifier.getPortIdentifiers();
28         while(portList.hasMoreElements()){
29             portId = (CommPortIdentifier)portList.nextElement();
30
31             if(portId.getPortType() == CommPortIdentifier.PORT_SERIAL){
32                 if(portId.getName().equals(defaultPort)){
33                     System.out.println("Found Port"+defaultPort);
34
35                     portFound = true;
36
37                     try {
38                         serialPort = (SerialPort)portId.open("SimpleWrite", 2000);
39                     } catch (PortInUseException e) {
40                         System.err.println("Por in use");
41                         continue;
42                     }
43                     try {
44                         outputStream = serialPort.getOutputStream();
45                     } catch (IOException e) {
46                     }
47                     try {
48                         serialPort.setSerialPortParams(9600, serialPort.DATABITS_8, serialPort.STOPBITS_1, serialPort.PARITY_NONE);
49                     } catch (UnsupportedCommOperationException e) {
50                     }
51                     try {
52                         serialPort.notifyOnOutputEmpty(true);
53                     } catch (Exception e) {
54                         System.out.println("Error setting event notification");
55                         System.out.println(e.toString());
56                         System.exit(-1);
57                     }
58                 }
59             }
60         }
61     }
62 }
```

```

57
58         input = serialPort.getInputStream();
59         while (true) {
60             while (input.available() > 0) {
61                 System.out.print((char) (input.read()));
62             }
63         }
64     }
65 }
66
67
68     if (!portFound) {
69         System.out.println("port"+defaultPort+ "not found");
70     }
71
72     serialPort.close();
73     System.exit(1);
74 }
75
76 }
77

```

4. Pastikan port serial yang digunakan sesuai
5. Jalankan program dan dekatkan tag RFID pada reader dan pada output terminal akan muncul seperti di bawah ini

The screenshot shows the output of a Java program. It displays version information for the native and Java libraries, a warning about a version mismatch between the RXTX jar and native libraries, and the successful discovery of a serial port (COM3) with the hexadecimal value 2600C3010FEB.

```

Output - Serial (run) x
Native lib Version = RXTX-2.1-8-mw1
Java lib Version   = RXTX-2.1-7
WARNING: RXTX Version mismatch
Jar version = RXTX-2.1-7
native lib Version = RXTX-2.1-8-mw1
Found PortCOM3
2600C3010FEB

```

6. Gunakan 3 tag RFID yang berbeda untuk mencobanya