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RF-EMBEDDED RFID SDK

1 Purpose

The Purpose of the RFID SDK is to provide the customer an open source implementation of the reader-host-protocol functions. The SDK is not meant to be a complete implementation of all possible functions of the reader, but we try to implement as many as possible.

2 Advice

Before implementing your own code, we strongly advice to test your purpose using the Reader Suite, to see how the reader works and to easily adopt the settings of the reader, before finding a perfect setup and writing it to code.

3 Programming Languages

The SDK is provided in the following programming languages:

- C#
- Java
- C++/Qt
- C++/STL

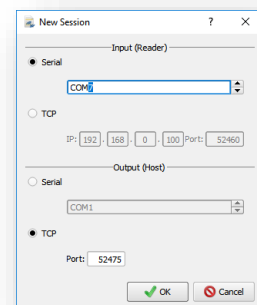
Where C# is the default SDK, which always has the latest features installed.

4 Serial Port

If for one SDK the Serial Port is not implemented it is possible to forward the Serial Port for testing to a TCP port. This can either be done using the Protocol Analyzer or socat on Linux.

Example Protocol Analyzer

With the configuration shown on the right side, the COM port COM 7 is forwarded to the the local TCP Port 52460, so it can be accessed at 127.0.0.1:52460




Example socat

This line forwards the /dev/ttyACM0 to the local TCP Port 52460, so it can be accessed at 127.0.0.1:52460

```
socat TCP-LISTEN:52460,fork /dev/ttyACM0,raw,echo=0
```

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5 Contents

5.1 C#

- Implementation of **Serial Port** and **TCP** useable for Windows and Mono (Linux/Mac)
- Split project structure, Library separated of Applications
- Applications:
 - o Console Application
 - o Simple Read Test
 - o Read TID Serial Number Test
 - o Cmd Line Scanner
 - o Cmd Line EPC Writer
- IDE:
 - o Visual Studio Community <https://www.visualstudio.com/vs/express/>
 - o MonoDevelop <https://www.monodevelop.com/>

5.2 Java

- Implementation of **TCP** useable for every platform; Serial Platform not portable
- Joint project structure, Library and Application in same project
- Applications:
 - o Console Application
- IDE:
 - o Eclipse for Java <https://www.eclipse.org/>

5.3 C++/Qt


- Implementation of **Serial Port** and **TCP** useable for every supported platform
- Split project structure, Library separated of Applications
- Applications:
 - o Console Application
 - o Simple Read Test
- IDE:
 - o Qt Creator (open source) <https://www.qt.io/>

5.4 C++/STL

- Implementation of **Serial Port** and **TCP** using Qt
- Qt just used for platform independent make files and device implementation
- Split project structure, Library separated of Applications
- Applications:
 - o Console Application
 - o Simple Read Test
- IDE:
 - o Qt Creator (open source) <https://www.qt.io/>

Every Console Application is meant to be compiled and to be ran before the code is inspected. In some applications the connection settings must be adopted in the code.

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