

**RXTXIntf User's Guide  
(RXTX Interface)  
1.0b02**

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## Section 1 - Introduction

RXTXIntf was written to provide a universal interface between Java applications and a serial port using the gnu.io serial package available from the RXTX group. At the time of this document, IcomInterface and KISSInterface of javAPRSSrvr can make use of RXTXIntf.

The RXTXIntf source code is published for use by other developers to work with the TNCSerialInterface.

## Section 2 - Program Requirements and Description

RXTXIntf is designed to run on any OS with any Sun Java Virtual Machine 1.2 or higher. This requirement is due to the use of the gnu.io package.

RXTXIntf is comprised of a number of classes which Java looks at as objects. The main class is RXTXIntf. This class is called at startup, sets parameters, and begins execution of the different support threads.

RXTXIntf works in conjunction with the TNCSerialInterface to provide full, bidirectional communication with the serial port. All IGate and TNC logic is handled at in other classes which leaves the RXTXIntf to concentrate on sending and receiving serial data.

## Section 3 - Configuration Parameters

The configuration parameters reside in a configuration file which, by default, is called javaprssrvr.cfg. You can use any text file if you pass the name into javAPRSSrvr as a command line parameter.

The parameters are CASE SENSITIVE. Defaults are shown below.

**NOTE: UNLESS YOU REQUIRE A SETTING OTHER THAN THE DEFAULT, DO NOT INCLUDE ANY PARAMETERS WITH DEFAULT SETTINGS.**

**List parameters** may be defined on the line or may be defined in a text file. If defined on the line, each entry is separated by a semicolon. If defined in a file, each entry is put on a separate line. Do not put blank lines in the file. The file must have the extension .lst For instance, this would be the definition for hubs where you want to connect to first.aprs.net and second.aprs.net port 1313:

```
hubs=first.aprs.net:1313;second.aprs.net:1313
```

Or you could have the following 2 lines in hubs.lst:

```
first.aprs.net:1313  
second.aprs.net:1313
```

You would then put the following line in your configuration file:

```
hubs=hubs.lst
```

**(R)** at the beginning of the parameter description means that the parameter can be changed on-the-fly from the console with either the S or R commands.

## ***TNCSerialInterface Parameters***

### **PortClassName=RAFIntf**

This is the name of the serial port class.

Use this parameter to specify the name of the serial port class. It defaults to the Random Access File interface. Set this to RXTXIntf to make use of the RXTX package.

### **TNCInitFile=**

This is the file name of the text file to send to the TNC.

This allows you to send the necessary commands to the TNC which switch it to KISS mode. If there is no file name, nothing is sent to the TNC. The file is automatically cleansed of any zero bytes as would exist in a Unicode format file. File content might be:

```
KISS ON  
RESTART
```

## ***RXTXInterface Parameters***

### **SerialPortName=**

This is the "file" name of the serial port. Windows uses COM1 for the first serial port.

### **RXTXSerialSettings=9600,8,1,n**

This are the basic settings for the serial port.

The settings are speed(bps), data bits(5, 6, 7), stop bits (1, 1.5, 2), and parity:

```
n = None  
e = Even  
o = Odd  
s = Space  
m = Mark
```

### **RXTXSerialFlowCtrl=none**

This specifies the flow control for the serial port.

Valid values are:

```
none (no flow control)  
hardware (hardware flow control RTS/CTS)  
xonxoff (software flow control Ctrl-S/Ctrl-Q)
```

## **Section 4 - Recommended Configurations**

Set the port to the settings required by your "modem" or TNC.

## Section 5 - Installation Instructions

RXTXIntf is included in all of the combined jar files. Simply add PortClassName=RXTXIntf to activate it. You must also install the RXTX package. This package and installation instructions can be found at <http://www.rxtx.org>