

**WinCommIntf User's Guide
(Windows .NET Serial Interface)
1.0b01**

WinCommIntf is Copyright (c) 2005 - Pete Loveall AE5PL pete@ae5pl.net

Use of the software is acceptance of the agreement to not hold the author or anyone associated with the software liable for any damages that might occur from its use.

Table of Contents

Section 1 - Introduction	1
Section 2 - Program Requirements and Description.....	2
Section 3 - Configuration Parameters	3
TNCSerialInterface Parameters	4
PortClassName=RAFIntf	4
TNCInitFile=	4
WinCommInterface Parameters.....	4
SerialPortName=.....	4
WinSerialSettings=9600,8,1,n	4
WinSerialFlowCtrl=none.....	4
Section 4 - Recommended Configurations	5
Section 5 - Installation Instructions	6

Section 1 - Introduction

WinCommIntf was written to provide a universal interface between .NET Java applications and a serial port using the Windows serial port interface. At the time of this document, IcomInterface and KISSInterface of javAPRSSrvr can make use of WinCommIntf.

Section 2 - Program Requirements and Description

WinCommIntf is part of the .NET versions of javAPRSSrvr (javAPRSSrvr.exe and javAPRSSvc.exe) and DstarTNC2. In addition to the those applications' .NET requirements, WinCommIntf requires "Microsoft Supplemental UI Library for Visual J# .NET v1.1" be installed. It can be downloaded from

<http://www.microsoft.com/downloads/details.aspx?FamilyID=789dac0d-2ccf-4021-a943-alc4802e1568&DisplayLang=en>

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

WinCommIntf 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 WinCommIntf 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 WinCommIntf to make use of the javax.comm 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
```

WinCommInterface Parameters

SerialPortName=

This is the "file" name of the serial port.

Windows uses COM1 for the first serial port.

WinSerialSettings=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
```

WinSerialFlowCtrl=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

WinCommIntf is included in all of the .NET .exe files. Simply add PortClassName=WinCommIntf to activate it. Be sure that both .dll files included in the .NET zip files are located in the javAPRSSrvr directory.