Outpost Packet Message Manager
Focusing on the message, not the medium

Using TNCs with Ipserial

Contents

1   Using Ipserial.exe

1.1   Introduction

Ipserial.exe is a terminal emulator delivered with Outpost. It is most useful when initially setting up a TNC or troubleshooting serial connections with your TNC. If you can use Ipserial to connect to your BBS, then it is a good indicator that you should be able to do the same with Outpost.

In you run into problems with Outpost and a TNC, using Ipserial is an excellent troubleshooting tool to work through the problems.

The following is information on the operation of Ipserial and some guidance on a troubleshooting approach to work through Ipserial and TNC problems.

1.2   Before you begin

Make sure you have the following in place:

1. You have a hardware TNC available
2. TNC to Radio cable
3. TNC to PC serial cable
4. If using a USB-to-Serial adaptor, the correct driver is installed and the adaptor is working properly.

5. Access to Ipserial. You can find and run the program by one of two methods:

   a. From the desktop. If you installed Outpost and selected Add Desktop Icons, look for the icon labeled "Ipserial". Click on this icon
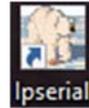
   b. From Outpost. Run Outpost, then select **Tools > Interactive Packet > Serial / Com Port**

   Ipserial will open the same for either method.

## 1.3   Setup Ipserial

To set up Ipserial, do the following:

6. Make sure that Ipserial is running.

7. Set up the TNC Com Port.

   a. From Ipserial, select **Setup > Com Port Settings**. The Setup form will first look for existing Com Ports, and then list only them in the Setup form.

   b. Select the Com Port settings for your TNC. Most TNCs use have this as their default settings: 9600 baud, 8 Data Bits, Parity=None, and 1 Stop Bits. If you are not sure, check your TNC manual.

   c. Press **OK** when done.
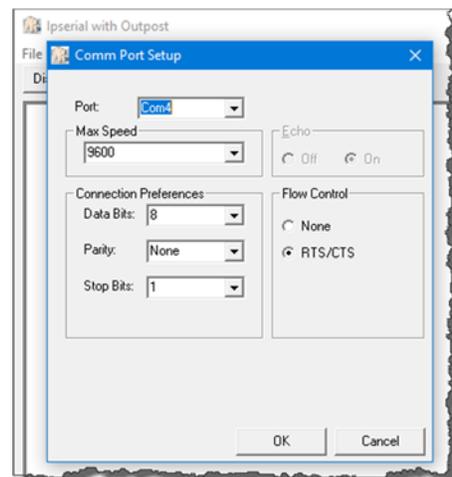
8. Turn on your TNC. On Ipserial, press **Connect**. If you do not see the TNC prompt, press the Enter key to get the TNC's attention.

9. If you see the TNC prompt (`cmd:`), then you have TNC connectivity. If not, check the troubleshooting problems and possible solutions here
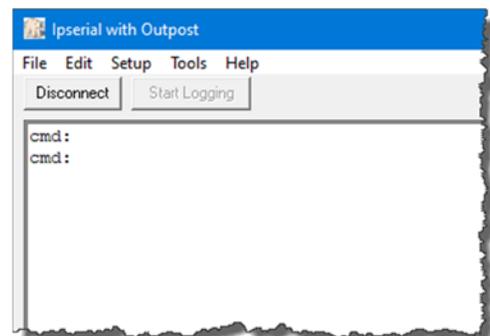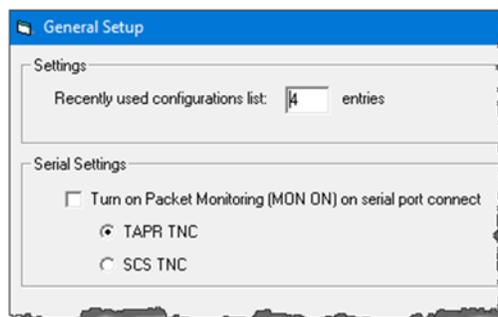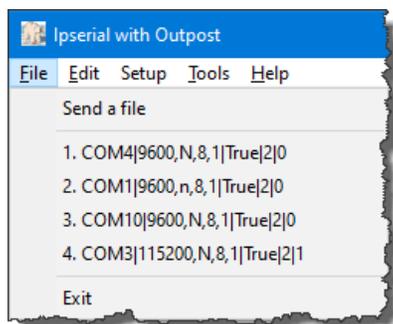
1.4 General Settings

Ipserial presents a few additional features that can support the Outpost user. These are located in the **Tools > General Settings** Tab.

1. **Recently user configuration list [#] entries**
   This option determines how many previous serial configurations would be listed in the **File > 'Most recently used'** listing at the bottom of this menu:

2. **Serial Settings, Turn on Packet Monitoring (MON ON) on serial port connect**.
   Ipserial can be used to monitor a frequency in between Outpost send/receive sessions. Once a session starts, Outpost commands Ipserial to "Disconnect". Outpost will process the send/receive session, then command Ipserial to "Connect". Because Outpost turned Mon OFF, this command turns MON ON whenever a Connect occurs. This allows channel monitoring to resume automatically.

   a. TAPR TNC or SCS TNC. This option tells Ipserial if special handling is required to correctly communicate with a SCS TNC.

1.5 Logging

It is possible to log everything that is written to the Ipserial form. This is a two-step process:

1. **Tools > Log to text file**   This menu item allows the user to identify where and the file name where the logging should occur.
2. **Start Logging**   If a log file was identified, this control is enabled once **Connect** is pressed. Everything after this is logged to the file. This file choice will stay active until Ipserial is closed.
3. **Stop Logging**   If logging was started, the control is renamed so that the user can stop logging at any time.

1.6 Other Tools

The Tools menu presents a series of controls that the user can invoke at any time:

1. **Get Comm Port Settings from Outpost**. Loads the current Outpost comm port setting into Ipserial.

2. **Create Message in Outpost.** Highlight any text in the Ipserial form, and press this button. Ipserial will prompt for a subject name and Save this message in Outpost's Draft folder.

3. **Kantronics Kiss Off, PacComm Kiss Off.** When connected to a TNC that appears unresponsive, it may be in KISS mode. Selecting this menu option will send the Kantronics and PacComm Kiss Off ascii character sequence: 192 255 192.

4. **Kantronics Host Off.** Similar to above, selecting this menu will send the Kantronics Host Off ascii character sequence: 192 Q 192.

5. **AEA Kiss Off, AEA Host Off.** When connected to an AES TNC that appears unresponsive, it may be in KISS mode. Selecting this menu option will send the AEA Kiss Off, Host Off ascii character sequence: CR CR CR.

6. **View Outpost Data Directory.** Opens Windows Explorer to the current Outpost data directory. This is a good way to get access to the Log file previous created.

7. **Font.** Allows you to change the text form font.

8. **Reset Font.** Resets the text form font to `Courier New`, Regular, size 10.

1.7 Troubleshooting Ipserial

Other than the program not installed correctly, it is unlikely that you will run into an Ipserial problem. Having just 'said' that, if you do find something, please let me know.

Problem	Possible cause	Solution
Ipserial does not run	Outpost is not correctly installed.	Re-install Outpost

1.8 Troubleshooting TNC Problems

Here are some of the most common problems encountered with communicating with a TNC.

Problem	Possible cause	Solution
TNC's Com Port is not listed. The TNC is definitely connected to the PC.	This usually occurs with USB-to-Serial adaptors.	Verify that the correct adaptor driver is installed. See the USB-to-Serial Adaptor Resource Page.
TNC does not respond after pressing **Connect**.	TNC ECHO is set to Off. This setting must be set to ON.	At the TNC prompt, type **echo on** <enter>
	TNC is not in Command Mode, possibly in KISS Mode. This occurs when other TNC programs do not restore the TNC to a previous state prior to exiting.	There are 2 ways to reset your TNC from KISS back to command mode. 1. From Ipserial, press **Tools > xxx Kiss Off** where xxx is your TNC type.

Problem	Possible cause	Solution
		2. Perform a Factory Reset. See your TNC manual for how to do this.
I get the error message: CommGetData: COM Error: Error (5): CommRead (ClearCommError) - Access is Denied.	Ipserial was connected to the TNC, then the TNC was either powered off or disconnected from the PC.	Reconnect the TNC to the PC. On Ipserial, press **Disconnect**, and then **Connect**. Press Enter to get the TNC Prompt.
I see text, but it is all garbled	Com Port settings do not match how the TNC is set up.	Perform a reset to Factory Defaults. See your TNC manual for how to do this.
The TNC is unresponsive or behaves inconsistently.	The TNC configuration may have been left in some state that is incompatible Outpost.	Perform a reset to Factory Defaults. See your TNC manual for how to do this.