ASE BCOM PCMCIA I/O Card Troubleshooting
Technical Note

The most common requests for technical support relating to the PCMCIA card are for I/O driver installation support or communication problems. Also, there has been a problem reported with a few PCMCIA cards shipped in late 2005 and early 2006 where the PC will lock-up when an attempt is made to communicate using the PCMCIA card. See the procedure below to test for this condition.

PCMCIA I/O Driver Installation Problems

I/O driver installation is a procedure that is performed the first time the PCMCIA card in inserted into a computer and should not have to be performed on that computer again, regardless of the number of times the PCMCIA card is inserted. Once the I/O driver has been installed, Windows will 'recognize" the card and not prompt for the driver again. If your question or problem relates to I/O driver installation, please refer to the documents "W2K-XP PCMCIA Driver Install.pdf" and "W2K-XP PCMCIA Driver Removal.pdf".

PCMCIA I/O Driver Communication Problems

If the I/O drivers appear to be installed correctly but you are unable to communicate with the device you want to test, the first thing to do is verify that communications through the PCMCIA card is working properly. To do this, the two PCMCIA communication channels will be connected together and two copies of the ASE2000 software will be used to verify communications. One copy will simulate Master operation and the other will simulate RTU operation. Basically the ability to send and receive on both PCMCIA ports will be tested.

1. Connect the "A" and "B" DB-25 connectors on the PCMCIA cable together through a NULL Modem Adaptor and Gender Changer.

2. Use the following link "PCMCIA-Test.mon" to download the configuration file which will be used with the ASE2000 software to send/receive data. Save the PCMCIA-Test.mon file in a folder on the local hard drive.

3. Launch the first copy (instance) of the ASE2000 test set by double-clicking on the PCMCIA-Test.mon file name. Launch the second copy (instance) of the ASE2000 test set by double-clicking on the PCMCIA-Test.mon file name.

4. At this point, there should be two copies of the test set active but not communicating.

5. On one of the test copies, select "File > Simulate RTU" or select the "Simulate RTU" icon.

6. On the other test set copy, move the mouse pointer over the "Data" exchange name in the "Exchange List" view then select "File > Send Continuously" or select the "Send Continuously" icon.

7. At this point, if the PCMCIA card is working properly, the screen should look similar to the example below. In the Line Monitor view for each test set window there should be a series of "Data request" and "Data Response" entries in the interpreted data section and the following data in the raw data section:

```
--> 55 01 02 03 04 05
<-- 55 10 20 30 40 50
```
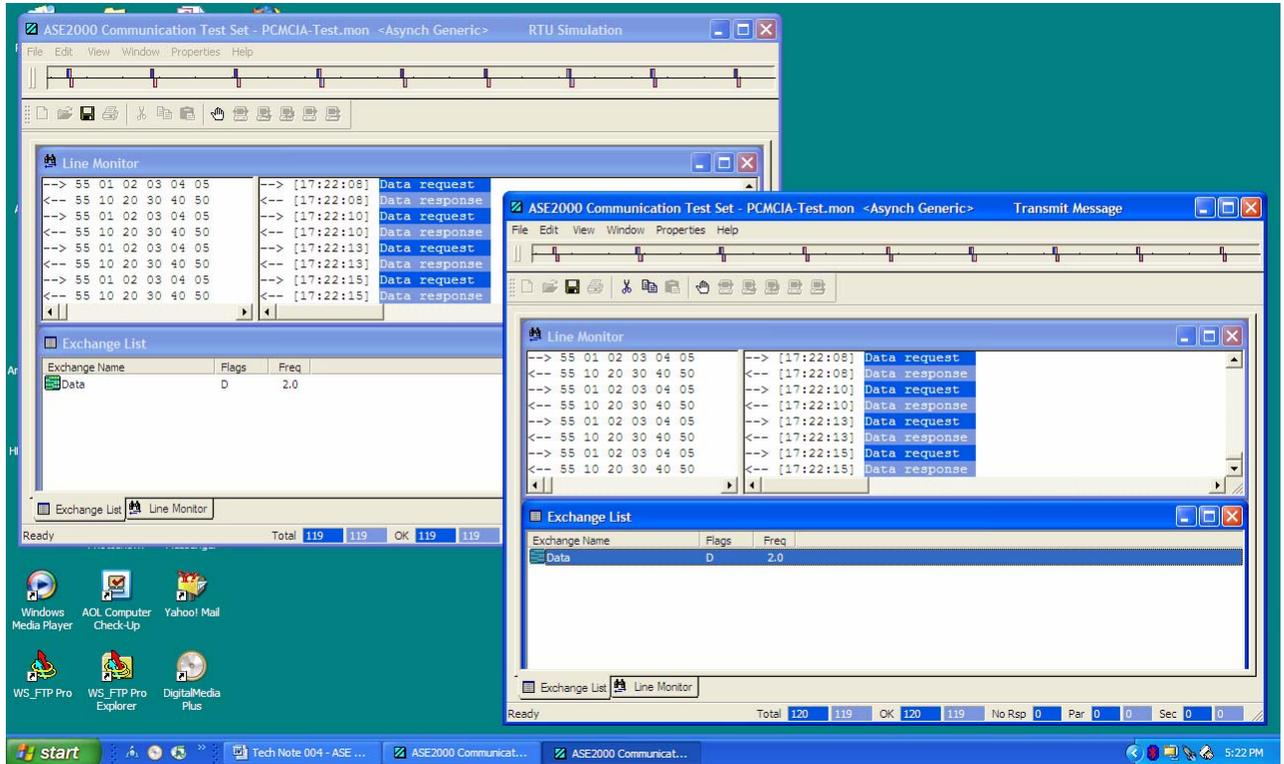

8. If the test set screen looks similar to the above screen, the PCMCIA card is most likely installed and functioning correctly.

Computer Lock-up when attempting to communicate

There has been a problem reported with a few PCMCIA cards shipped in late 2005 and early 2006 where the PC will lock-up when an attempt is made to communicate using the PCMCIA card. There is a fairly simple test to determine if the card being tested has this problem. This particular problem occurs only when the PCMCIA card is used in "bit" mode. It is not a problem in "byte" mode. To run the test, follow the steps (1 – 8) in the section above with "Native Asynch Mode" selected then run the test again with "Native Asynch Mode" not selected. Following Step 4 and before Step 5, select "Properties > Communication > Line tab". If the "Native Asynch Mode" box is checked, un-check it and proceed with the test. If the test runs successfully with the "Native Asynch Mode" box checked but PC lock-up condition occurs with the box un-checked, the PCMCIA card is faulty. In this case, contact Applied Systems Engineering, Inc. support at support@ase-systems.com and arrange for a replacement PCMCIA card.

Applied Systems Engineering, Inc.