ZMax PDL Radio configuration for GMSK

Configure the Rover Radio

Confirm that Evaluate and PDLCONF software have been installed on the computer.

The current version of Evaluate is available from the software folder on the ftp server at

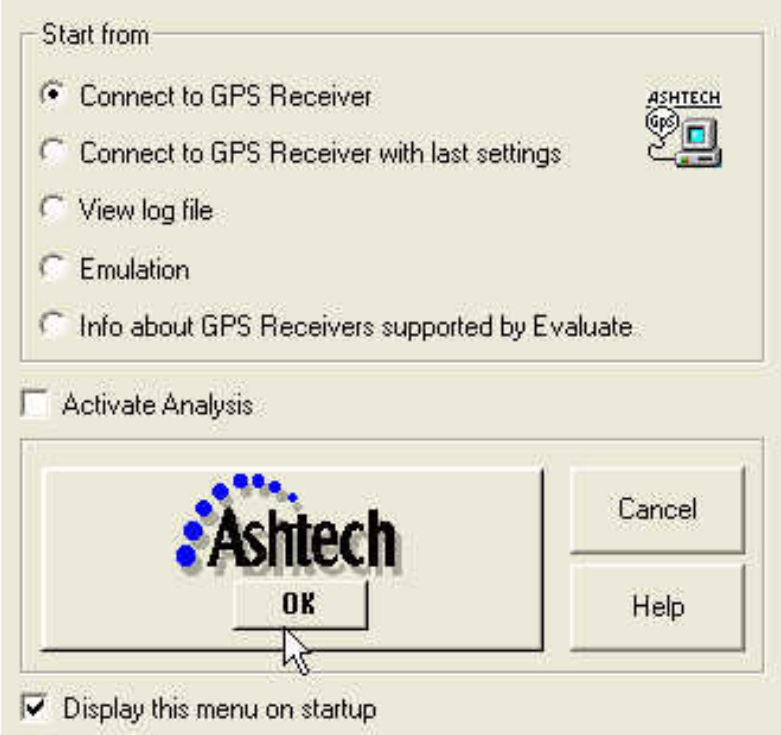
ftp://ftp.thalesnavigation.com

The current version of PDLCONF can be downloaded from the web page at

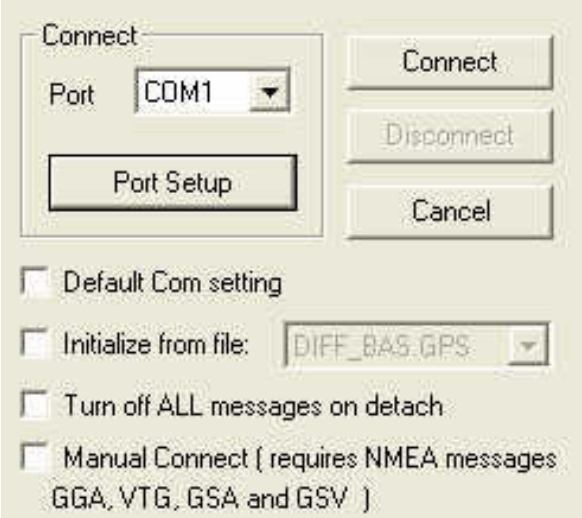
http://www.paccrst.com

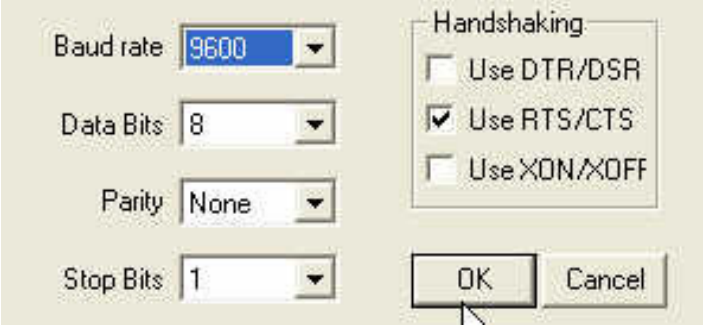
Connect the correct serial interface cable to port B on the ZMax and a COM port on the PC.

Power on the ZMax and open Evaluate.

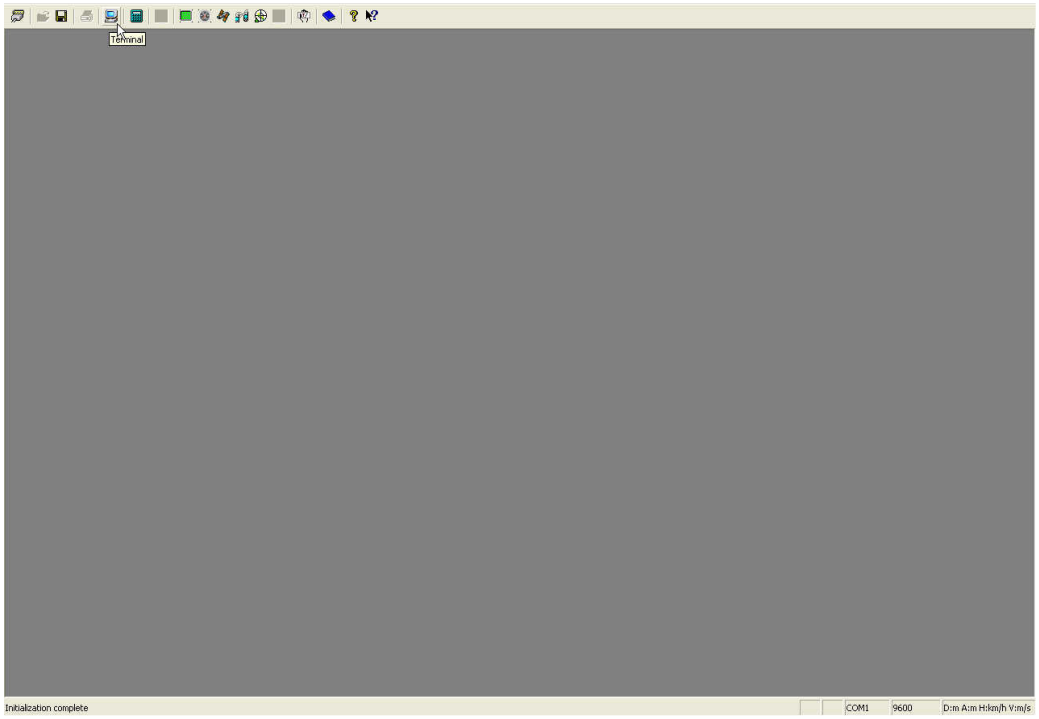


Connect Evaluate to the ZMax.

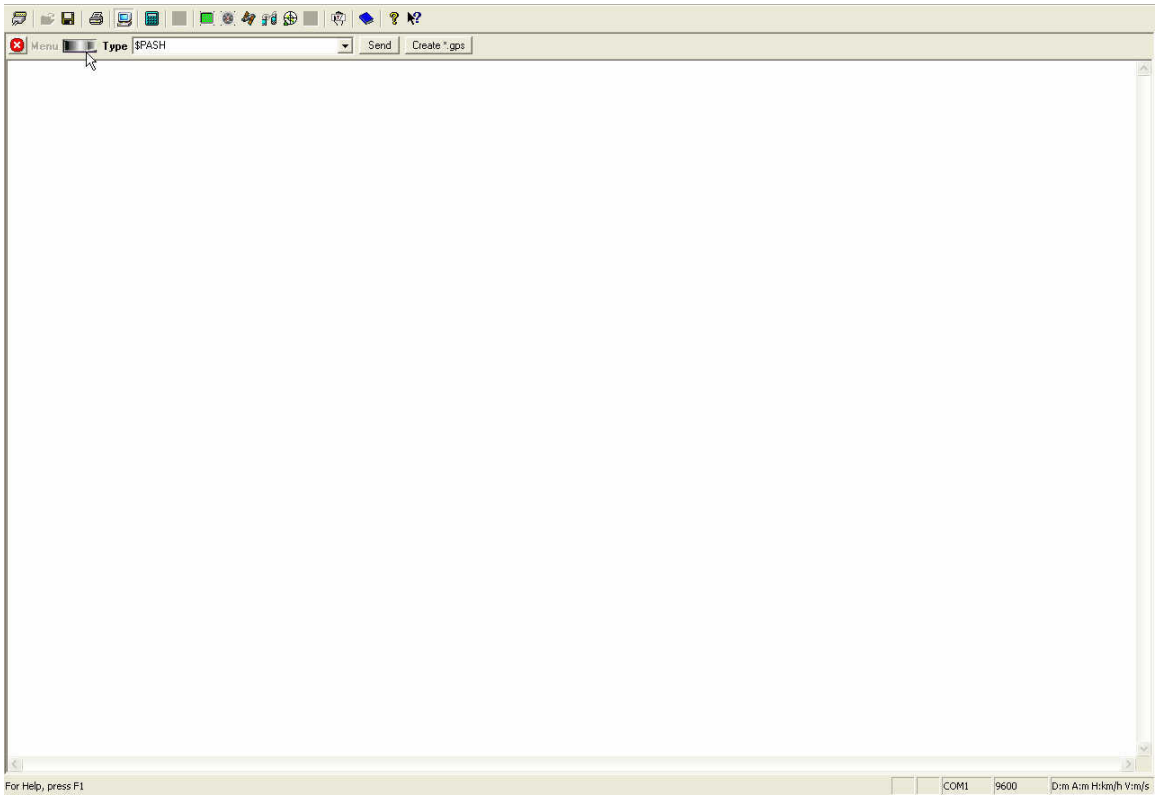




Open the Evaluate terminal window.



Toggle the terminal window switch from Menu to Type by clicking on the switch.



Enter the following $PASH queries and commands:

$PASHQ,RID and click on SEND

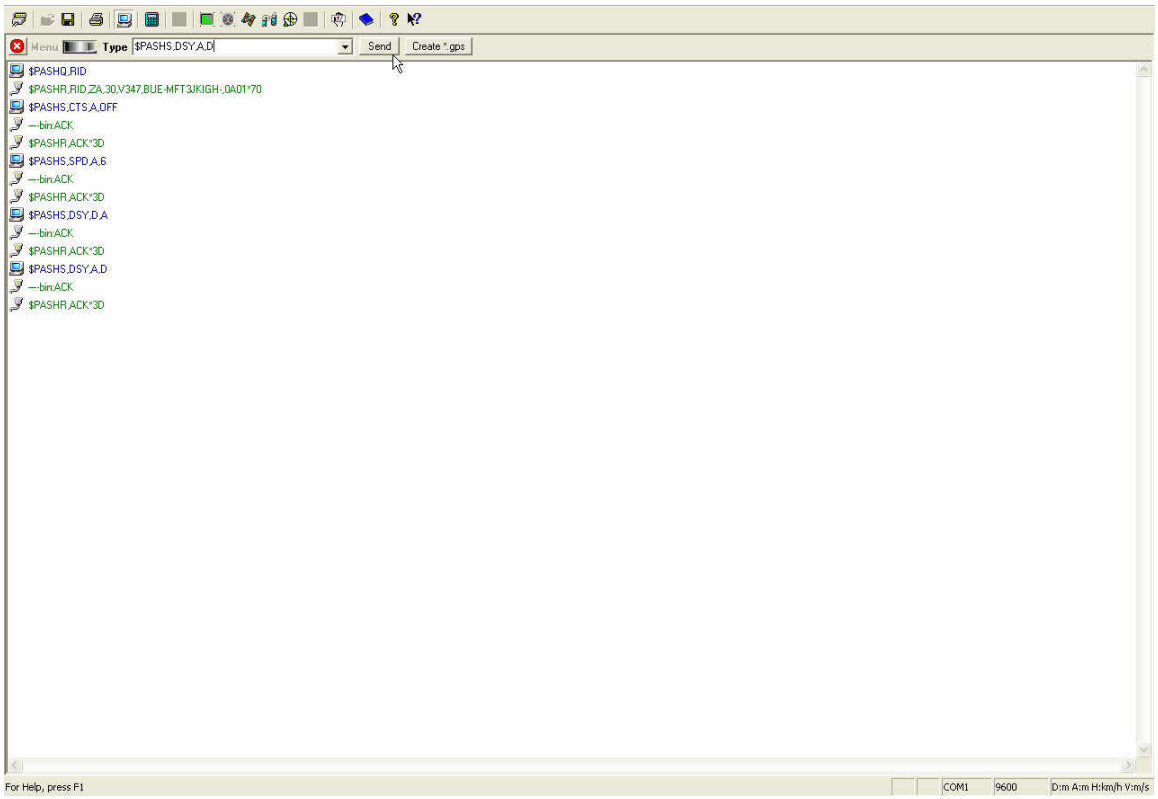
Verify that the receiver responds with the RID string and not a NAK.

$PASHS,CTS,A,OFF and click on SEND. Observe ACK.

$PASHS,SPD,A,6 and click on SEND. Observe ACK.

$PASHS,DSY,D,A and click on SEND. Observe ACK.

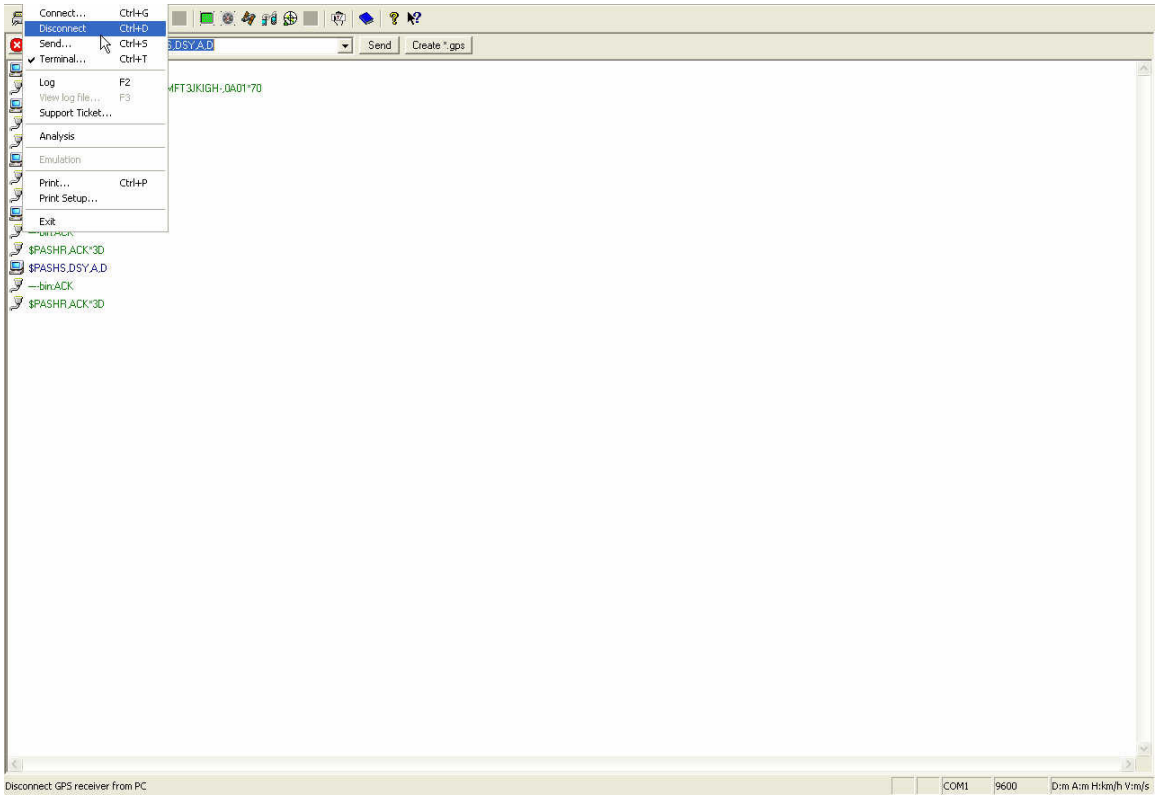
$PASHS,DSY,A,D and click on SEND. Observe ACK.



For more information look up these commands in the Z Family manual that is available in the reference manuals folder on the ftp server at

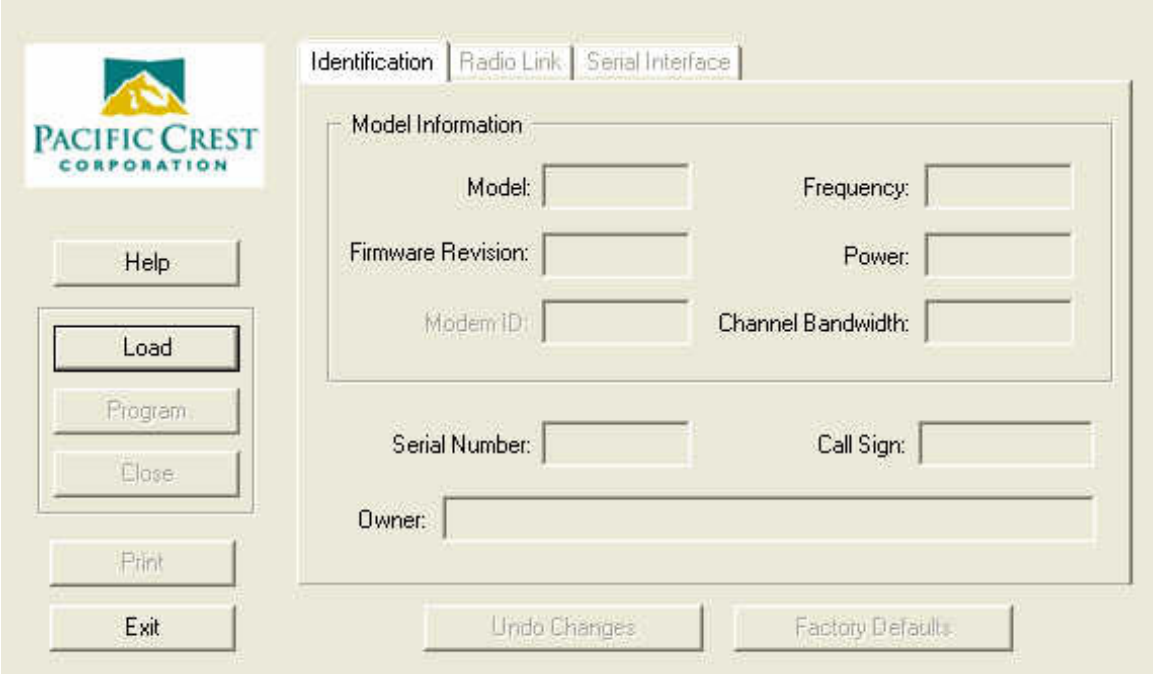
ftp://ftp.thalesnavigation.com

Go to the GPS pull down menu, disconnect, and exit Evaluate.



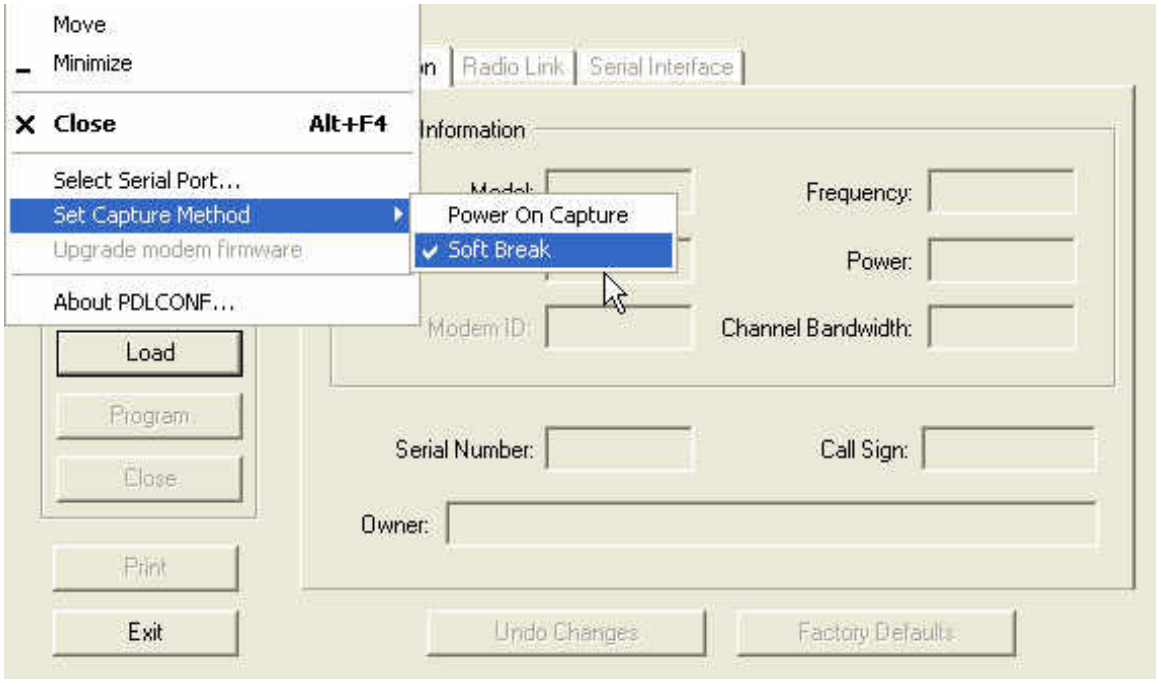
While the ZMax remains powered on move the ZMax serial cable from Port B to Port A.

Open the PDLCONF software.

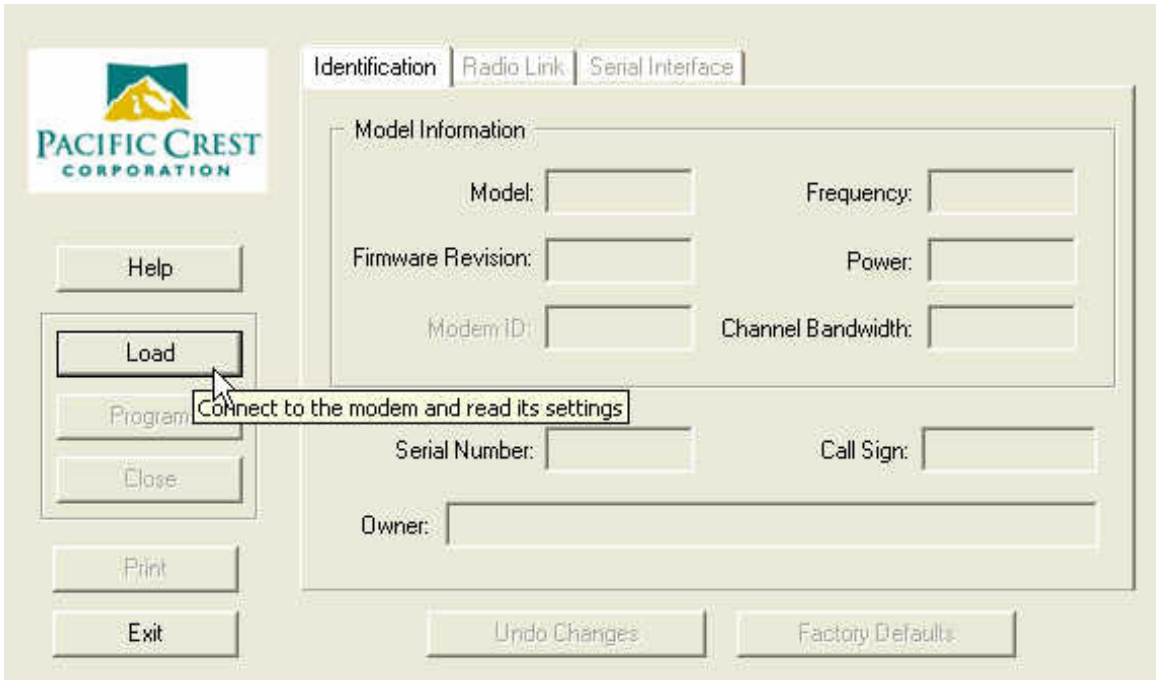


Click on the small icon at the top left corner of the PDLCONF window.

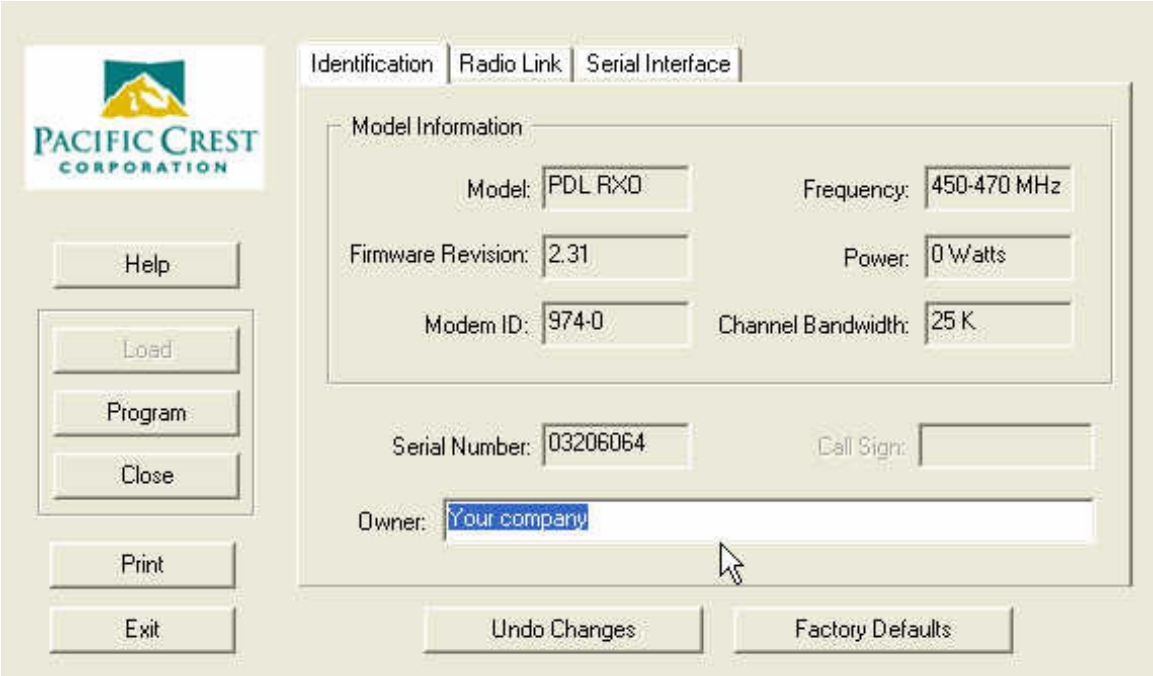
Click on Set Capture Method and then select Soft Break



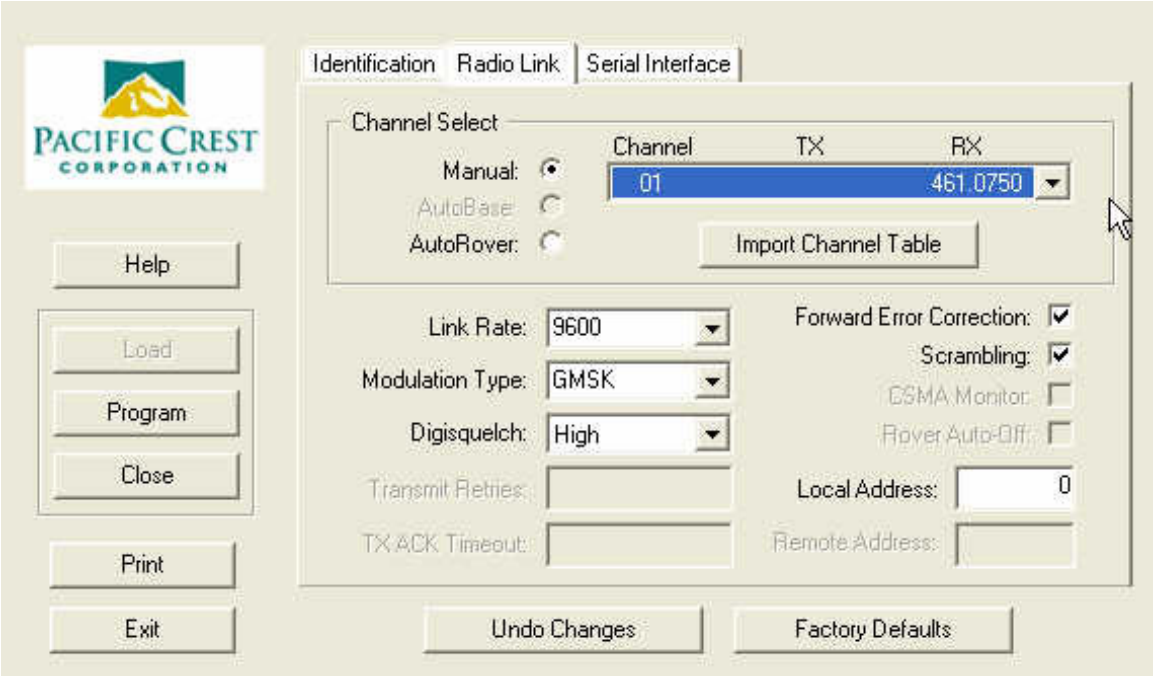
Click on Load to connect to the radio and check the current settings.



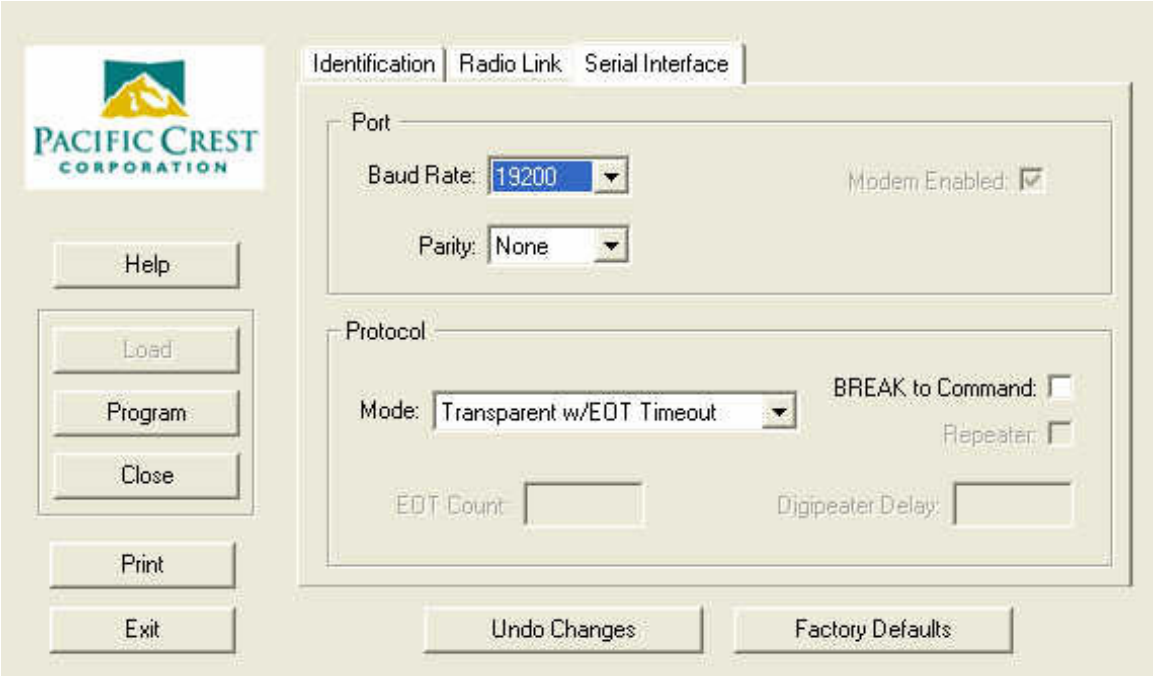
On the Identification tab screen modify the Owner name as appropriate.



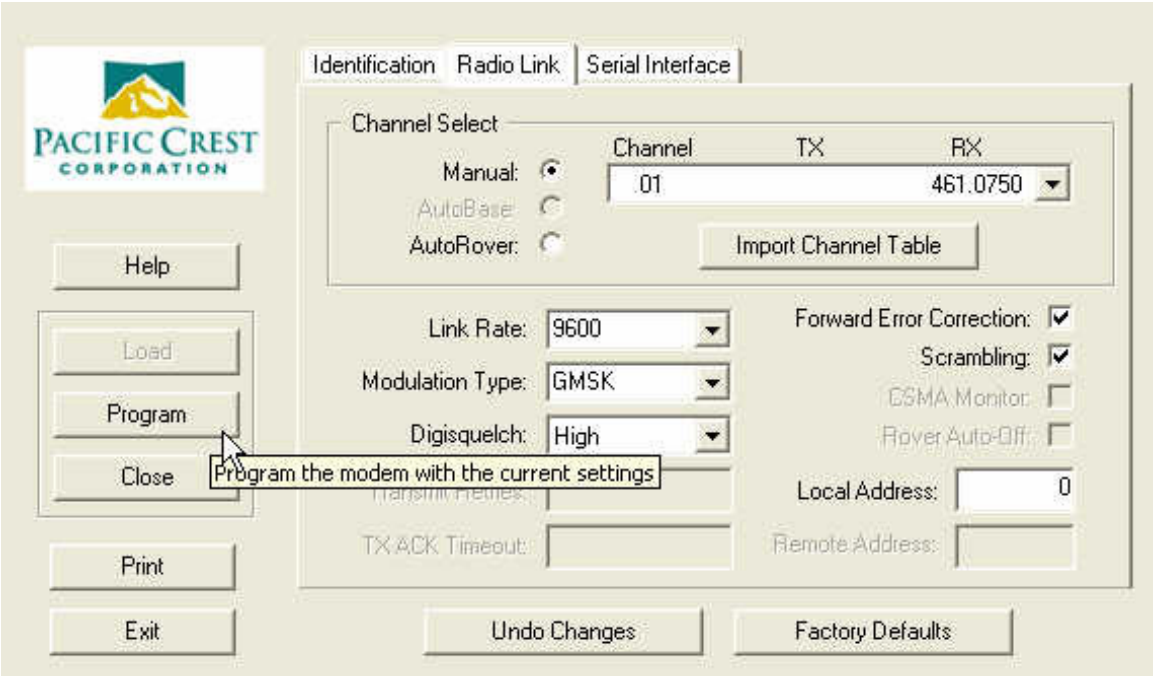
On the Radio Link tab make the settings match the ones shown. Your RX frequency may not match. That will depend on your radio license.



On the Serial Interface tab make the settings match the ones shown.



Click on Program to send your settings to the PDL.



Confirm that is really what is intended by clicking on Yes.

Click on load again if you want to confirm that your settings were sent to the PDL module.

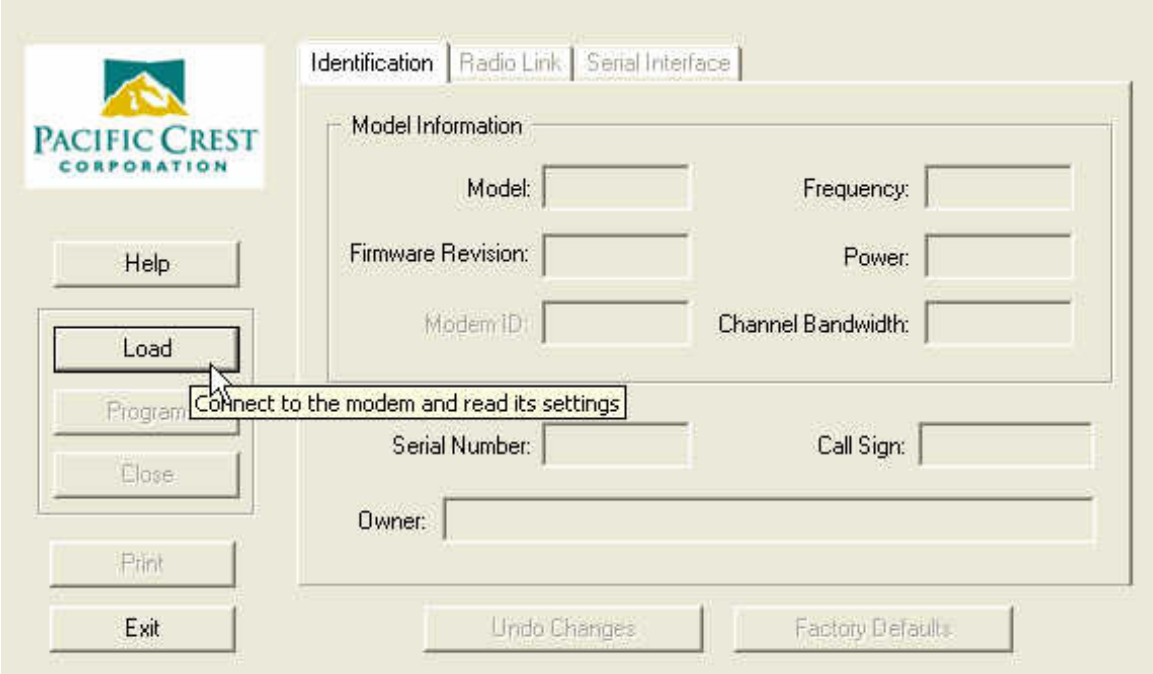
When finished exit the PDLCONF software and power off the ZMax. Disconnect the cable from the ZMax and perform a re-init on the ZMax by holding in the power button until the display shows re-init. Look up the topic called Reset the Unit in the ZMax Operations and Applications manual that is available in the reference manuals folder on the ftp server at

ftp://ftp.thalesnavigation.com

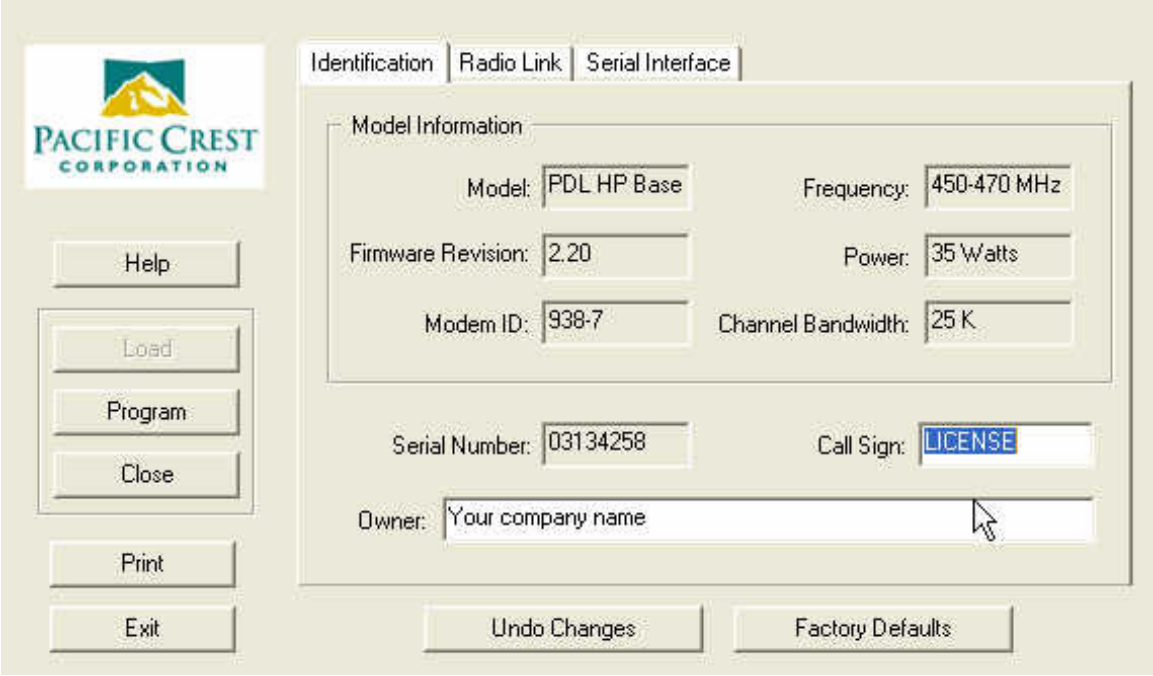
Configure the Base Radio

The connection to the PDL base radio can be made without going through the ZMax receiver. Use the Pacific Crest radio cable that will connect the PDL base directly to the COM port on the PC. Before connecting the PDL to a power source it should be connected to an antenna.

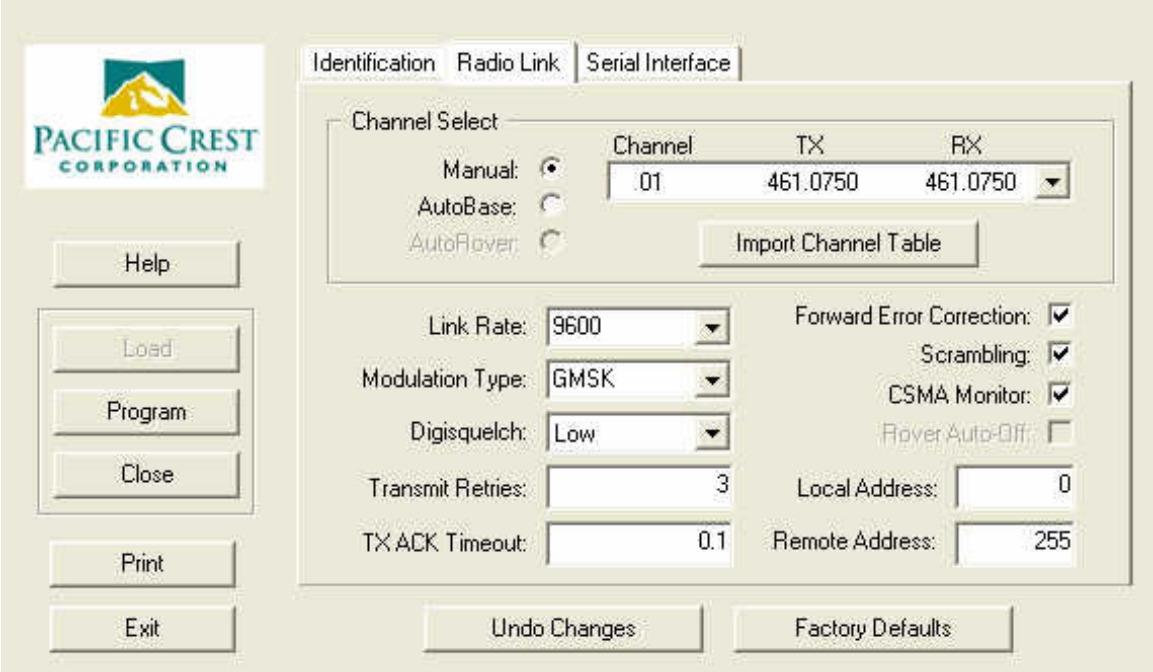
In the PDLCONF software click on Load to load and read the current settings in the radio.



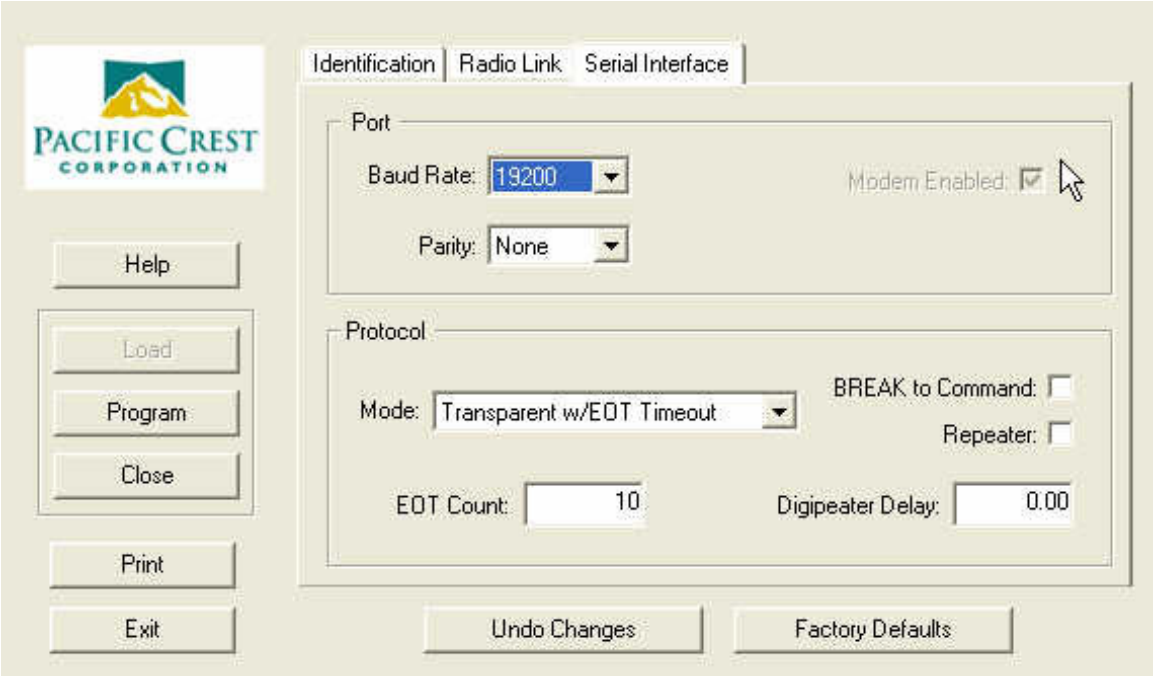
On the Identification tab the Call Sign field should show your radio license identification. The Owner field should have the owner's name.



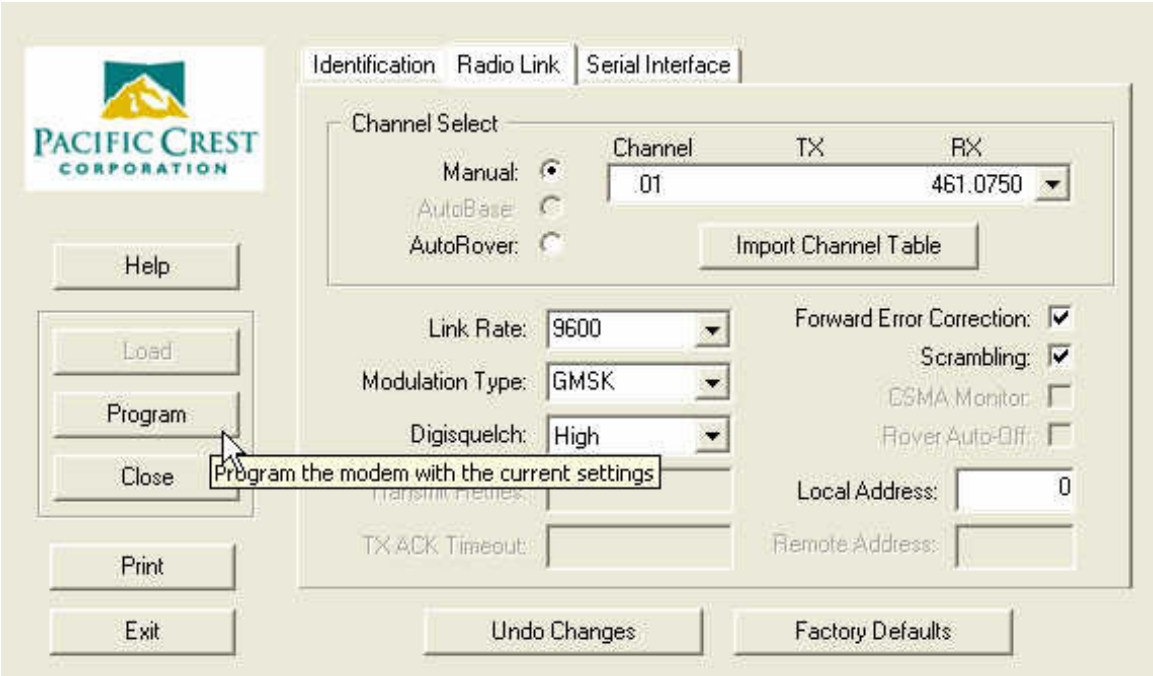
The Radio Link tab should be completed as shown. Your TX and RX settings may not match. This will depend on your radio license.



The Serial Interface tab should be completed as shown.



Click on Program to send any changes you have made to the PDL base radio.



Confirm your desire to Program the radio using the new settings.

Load the settings again to confirm that the radio was programmed with the desired settings.

Close the connection to the PDL and exit from the PDLCONF software.

The ZMax rover and base radios are now ready for field work using the GMSK modulation.

By Phil Stevenson
May 13, 2004