Procedure for receiving data through a DNT:
- ⚲ First install the necessary software:
  - ○ Keyspan USB serial adapter software for Mac or PC (located on a CD with the recovery maps and manuals)
  - ○ RealTerm Serial/TCP software for PC (http://realterm.sourceforge.net) or timcapture for Mac
- ⚲ Mount a DNT in the development board and connect its antenna with a short wire (tape it to make sure it does not come undone).
- ⚲ Power the development board with either a 9-volt battery or a wall wart.
- ⚲ Connect a CAT5 wire to the board, plug the other end into a CAT5-to-9pin adapter, and attach that to a Keyspan adapter, which will provide a device USB port to connect with the computer. Alternately, you can connect the board directly with a computer via USB, but it doesn't work for all the boards.
- ⚲ Open RealTerm. Under the **Port** tab set the baud rate (230400) and port. Notes:
  - ○ If you cannot tell which port is the DNT, look at the available port options with the DNT disconnected. Then, plug the DNT back in and restart RealTerm. There should be a new port available that was not before.
  - ○ The **Parity** should be none, **Data bits** should be 8 bits, and **Stop bits** should be 1 bit. These are the RealTerm defaults so you should not have to change them.
- ⚲ Once you have entered the correct settings, press **Change** for them to take effect. The port should be open, but if it is not, click **open** (**Port: closed** appears in the lower right-hand corner of the window when the port is not open).
- ⚲ Move to the **Capture** tab. Deselect the **Direct Capture** checkbox. Enter the path of the file you want to use for capturing data. Click **Start: Overwrite** if you want to overwrite the contents of a file with the same path (if there is one) or **Start: Append** if you want to append data to an already existing file. The difference is unimportant unless a file by the same name already exists.

Procedure for configuring a DNT:
- ⚲ First install the necessary software:
  - ○ Keyspan USB serial adapter software for Mac or PC (located on a CD with the recovery maps and manuals)
  - ○ New DNT software for PC only (located on the greencube laptop, C:\DNT-Programs-RevD)
- ⚲ Mount a DNT in the development board.
- ⚲ Power the development board with either a 9-volt battery or a wall wart.
- ⚲ Connect a CAT5 wire to the board, plug the other end into a CAT5-to-9pin adapter, and attach that to a Keyspan adapter, which will provide a device USB port to connect with the computer. Alternately, you can connect the board directly with a computer via USB, but it doesn't work for all the boards.
- ⚲ Start the executable **DNTWizard.exe** (it should be in the folder DNT-Programs-RevD).
- ⚲ Click **Connect**. Enter the Comm Port that is connected to the DNT. Select the baud rate (typically 115200 or 230400 unless it is a new, un-configured DNT which will default to 9600). Notes:
  - ○ If you cannot tell which port is the DNT, look at the "OK" ports with the DNT disconnected. Then, plug the DNT back in, click **Cancel**, then click **Connect** again. There should be a new port available that was not before.
  - ○ Parity should be none, stop bits should be 1, and auto detect should be false.
- ⚲ Once connected, click **Config**. A new window should appear. If an error message appears saying "Could not get all banks," close the wizard and try again with the DNT powered and

connected during the entire process.

- Modify the settings to match those specified on the DNT Settings page
- NOTE: <u>if you make any changes</u> be sure to so click **Apply Changes** to save them, then click **Refresh** to confirm that they have taken effect.
- NOTE: <u>if you have trouble getting the radios to communicate</u> check the **Status** tab (particularly the **Current RF Data Rate** which should be 0x01). Sometimes settings will appear to change under the other tabs, but the status will show that they are incorrect. The safest course of action then is to click **Default,** in order to restore the DNT settings to factory defaults, and then manually change individual settings to what you want. <u>DO NOT</u> attempt to **Load** saved configuration files because this is extremely unreliable with the current version of the Wizard.