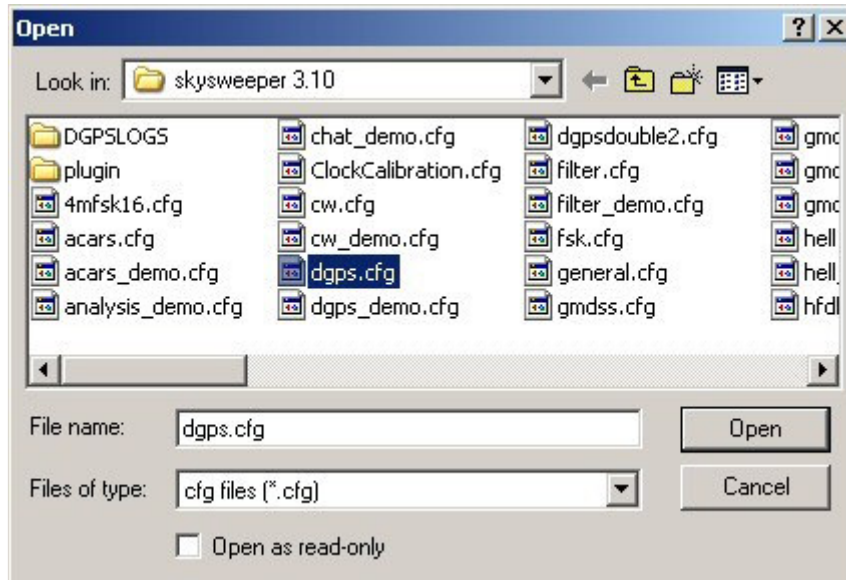


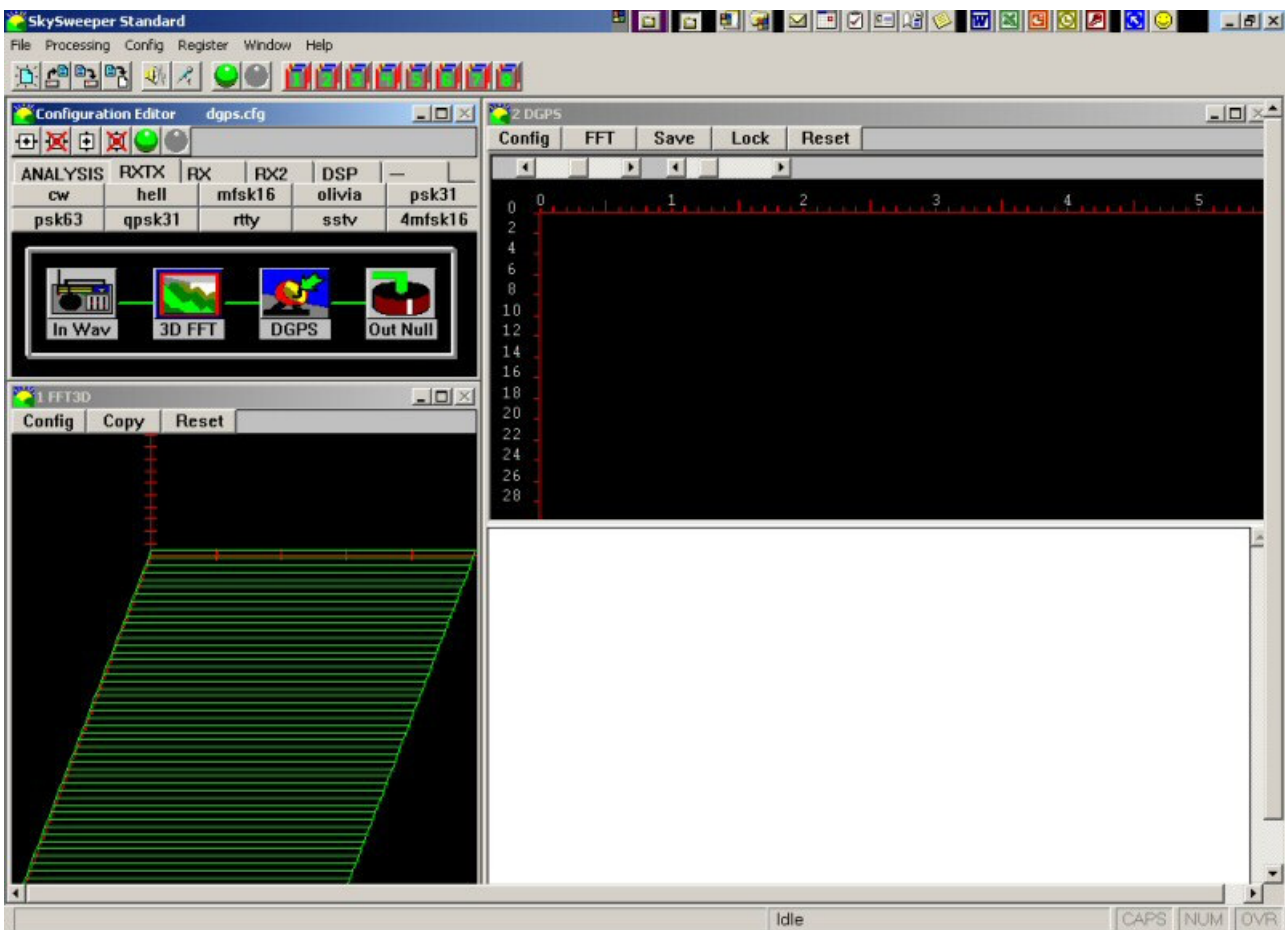
# SKYSWEEPER “DOUBLE DGPS” SET UP PROCEDURE:

To set up the Skysweeper programme for “Double DGPS” operation, the following procedure can be used:

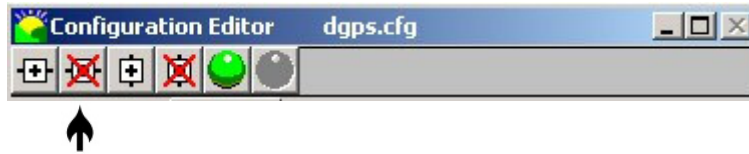
1. Open Skysweeper programme.
2. Open DGPS option, either by selecting it from the tab (RX etc.), or by clicking on “File” and “Open” command, and selecting “dgps.cfg” from the box that appears.



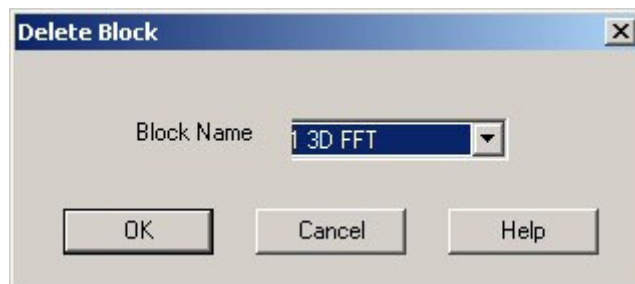
3. After clicking on the “Open” button, the programme will open up for DGPS as per normal, and look like the image below:



4. Next we need to remove the "1FFT3D" box, which isn't necessary for this mode, and to do this the following will work:
- a. Click on one of the small buttons with the red cross on it on the 'configuration editor' toolbar (there are two of these, the left hand one is the one to use).



- b. Clicking on the left hand cross will bring up the following box:



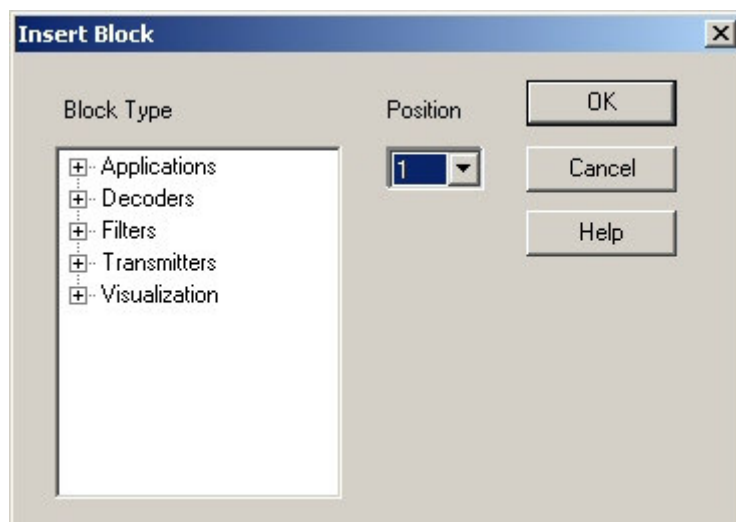
- c. Click on the "OK" button and the 3D FFT Block will be removed.

5. Now click on "File" then "Open" again as before, and the programme will ask you if you want to save the current configuration, click "Yes" to this.

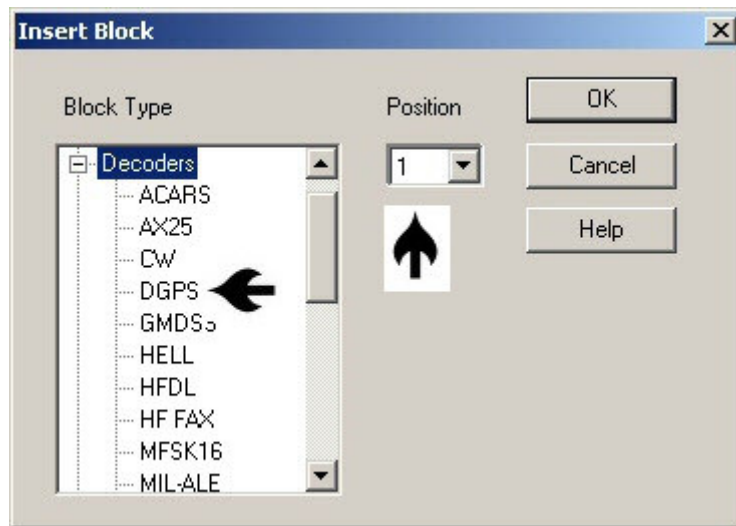
6. Now we need to insert a new block, and we do this by clicking on one of the buttons on the configuration editor toolbar (the left hand button without the red cross).



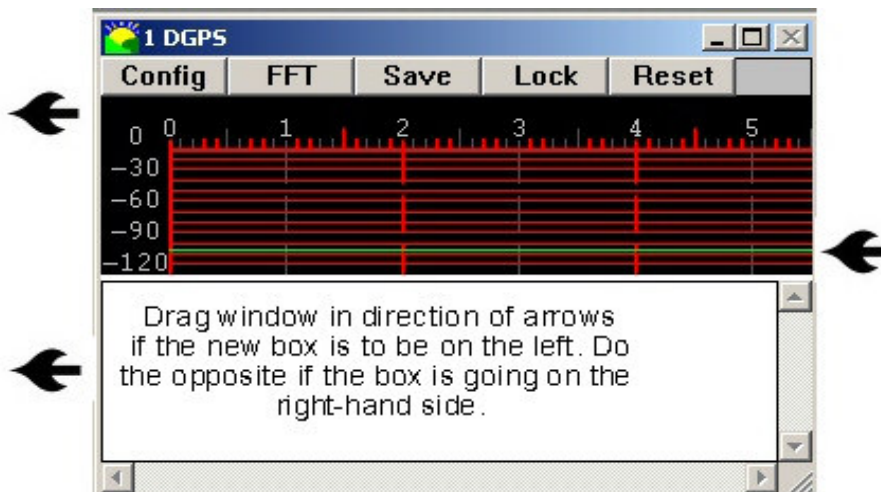
7. You should now see a box that looks like the one below:



- Click on the small cross next to 'Decoders' and the following box should appear:



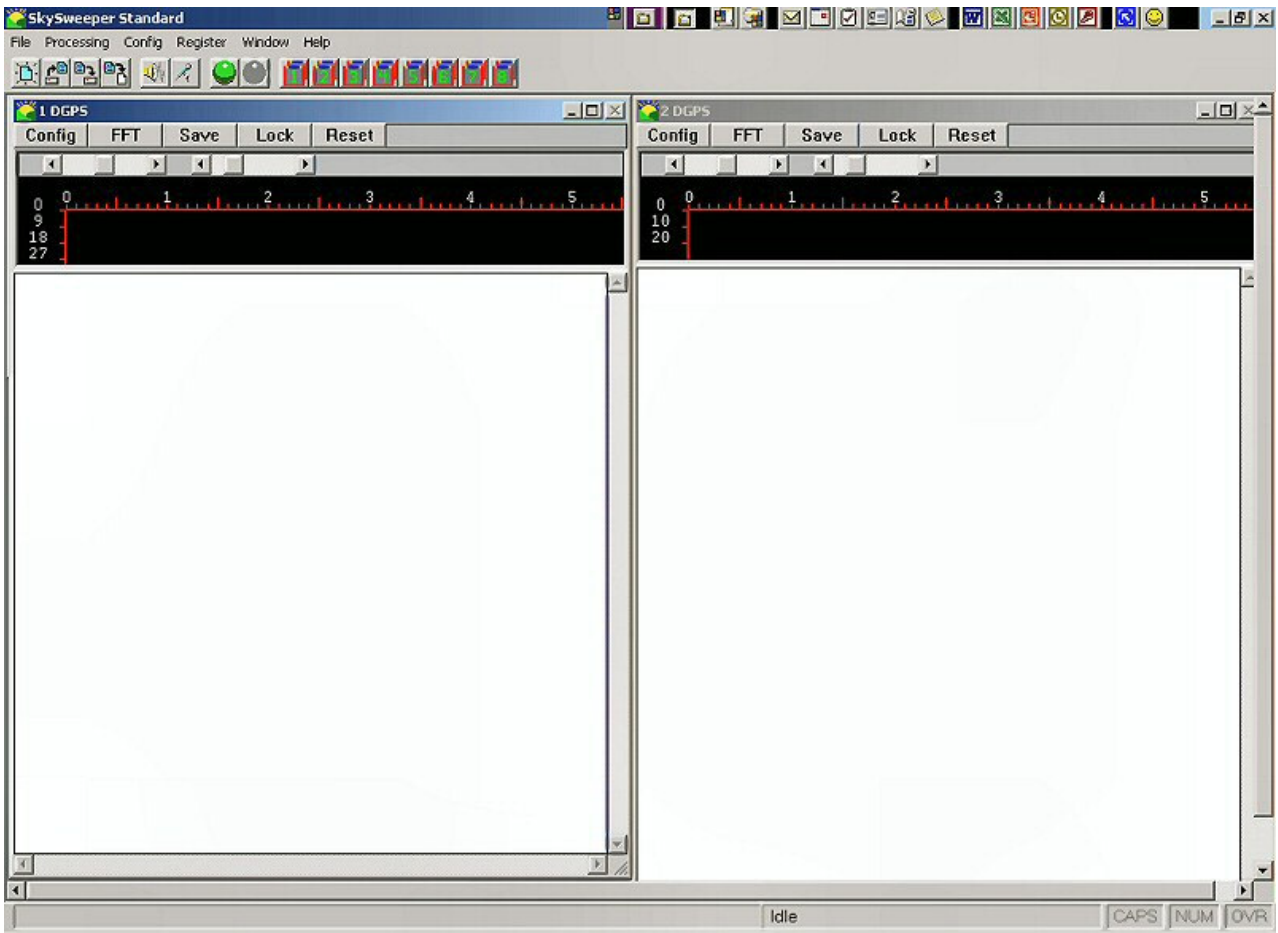
- Left click on 'DGPS' and then click the 'OK' button, and the following box will appear (Note# the position box shows Position 1 in the above example, if adding a new window to the opposite side Position 2 may need to be selected!):



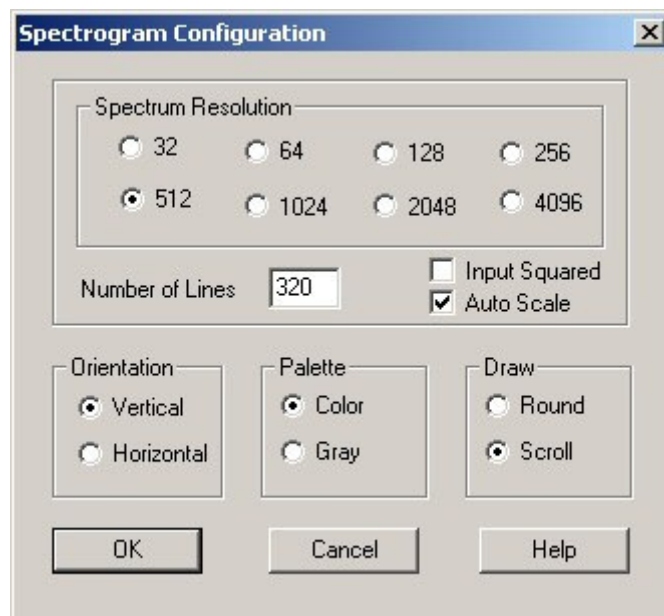
- Drag this box into the space on the left hand side and then click on the 'red grid' with your 'right hand' mouse button, and you should see that the word 'grid' has a tick next to it. If this is so click on 'Spectrogram' with your 'left hand' button to select it, and if all is well your window should now look like the one on the right-hand side of your screen. (Note# be careful not to drag your new window over the existing DGPS window, if you do place your cursor on the 'blue bar' at the top and you can drag the entire box to another part of the screen!).
- Next you need to re-size both windows until they fill both halves of your screen. This is quite easy, when you place your cursor over the edge of a box you will see to black arrows appear, at this point hold down your left-hand mouse button and 'drag' the box to the required size. (Note# You can drag the left hand one over the 'configuration editor' box, this will re-appear again once the programme is re-started, but will 'hide' once you click on the left-hand DGPS window).

You might also like to make the Spectrogram window at the top a little narrower as well (you drag the dividing line upwards by placing your cursor over it and holding the button down as you did when re-sizing the previous window), and this will give you a lot more area to see your decodes. In my set-up I find that about 1 inch of Spectrogram window is more than enough, though you will find that you may need to adjust this slightly whenever the programme is opened, though this is a simple task that soon becomes quite automatic.

If all has gone okay your window should now look like the one below:

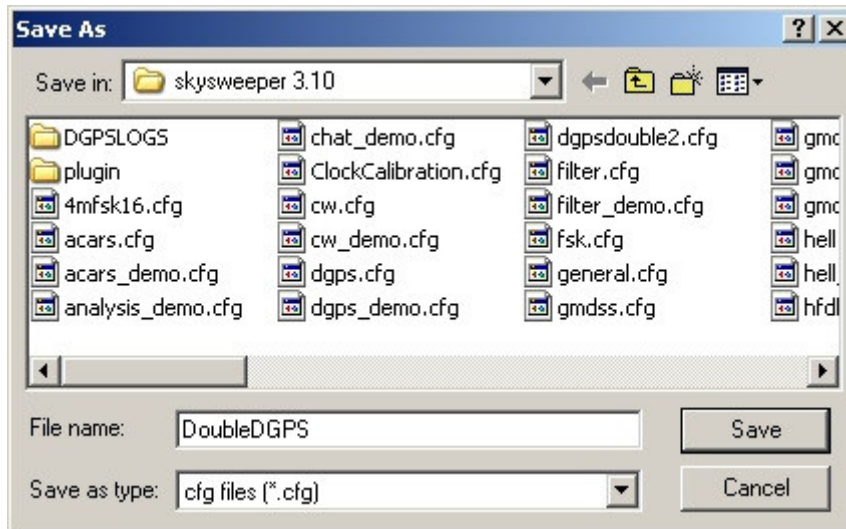


12. One more thing you might like to change is the “Auto-scale” function, which on recent versions of Skysweeper doesn’t show the signal trace as brightly as it did in older versions, thankfully this is very easy, and can be done in the following way:
- a. ‘right-click’ on the ‘spectrogram window and click ‘properties’ with your left-hand mouse button.
  - b. The following box will appear, untick the box marked “Auto Scale” (Note# you will need to do this on both the left and right-hand windows).



13. We're nearly finished now, but one last and very important thing must be done before we are ready to use our window – save the changes to a new file!

This is quite simple to do, just click on “File” then “Save As” and the following box will appear:



Give this new configuration a name, such as in the example above, though any recognisable name is okay, just don't use the original dgps.cfg or it will be overwritten.

14. When this is done click the “Save” button.

You are now ready to use your Double DGPS window, when you open your Skysweeper programme just click on “File” and “Open” every time, and select the “DoubleDGPS.cfg” file (or whatever you named it), and The window will appear as you created it. Please note that the “Configuration Editor” box may appear over the top of your right hand window when you open the programme, this is perfectly normal, and the box will ‘hide’ once you click on anywhere in that window. You could of course skip much of the above and just modify and save this set up on your original DGPS window, but I like to leave the original intact in case of problem, I can make a new DoubleDGPS window easier than I can re-install the programme again!

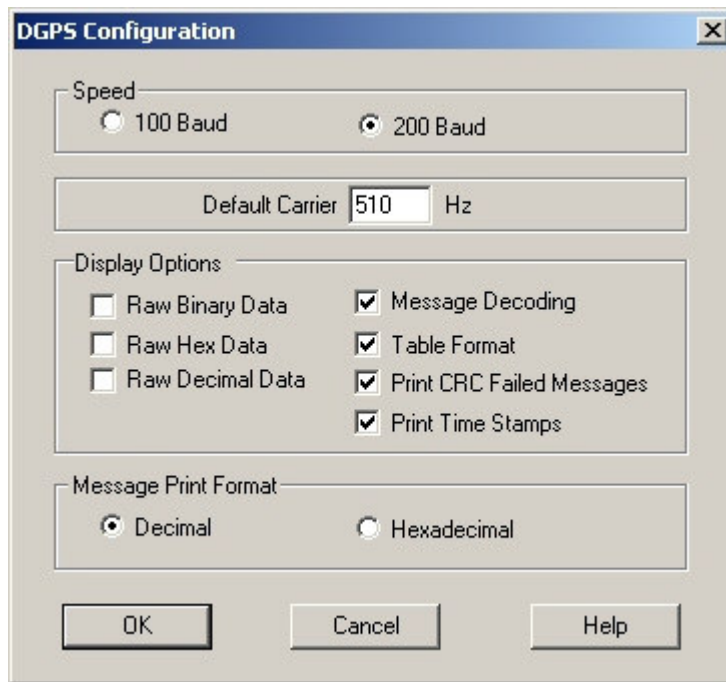
## Using the Double DGPS Configuration:

When you open the programme you will need to set each window for the correct BPS speed, this is quite easy, and can be done the following way:

1. In our left-hand window click on the “Config” button on the Skysweeper toolbar:

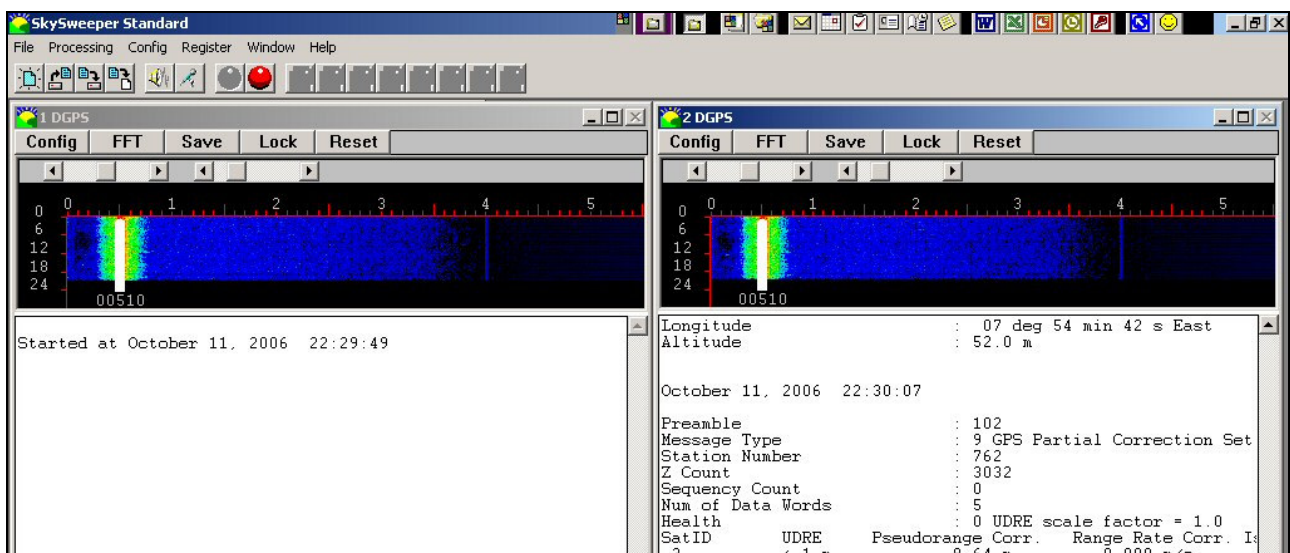


This will open the “DGPS Configuration” window, which will allow us to set the Baud rate to our preferred option, in my example the left-hand window is set to 200bps and the right-hand window to 100bps, but this can be set in whichever way you personally prefer, this won't make any difference to your results, and will work either way. In Europe where 100bps is the norm that tends to be the dominant setting, but in North America 200bps is quite common, and this may well be the dominant window.



You can 'dot' the 100 Baud spot if that is your preferred setting, though be sure to set the other window to the other speed afterwards, or you will find that you are getting the same messages in both windows when you start decoding. You may find that your box is not ticked in exactly the way that mine is, this is my preferred format, and of course, the default carrier will need to be set to whatever pitch you use (mine is set at 510 Hz), though you can of course set this in the Spectrogram window by clicking on the red and yellow trace with your left-hand mouse button as the signal is being received!).

- a. Do the same for the other window, but choose the other Baud rate and you are now ready to double decode your signals.
- b. Click on the "Green Ball" and the programme will start decoding, depending on the bps rate of the beacon you are decoding, you will see text appear in either the right hand or left hand window as below:



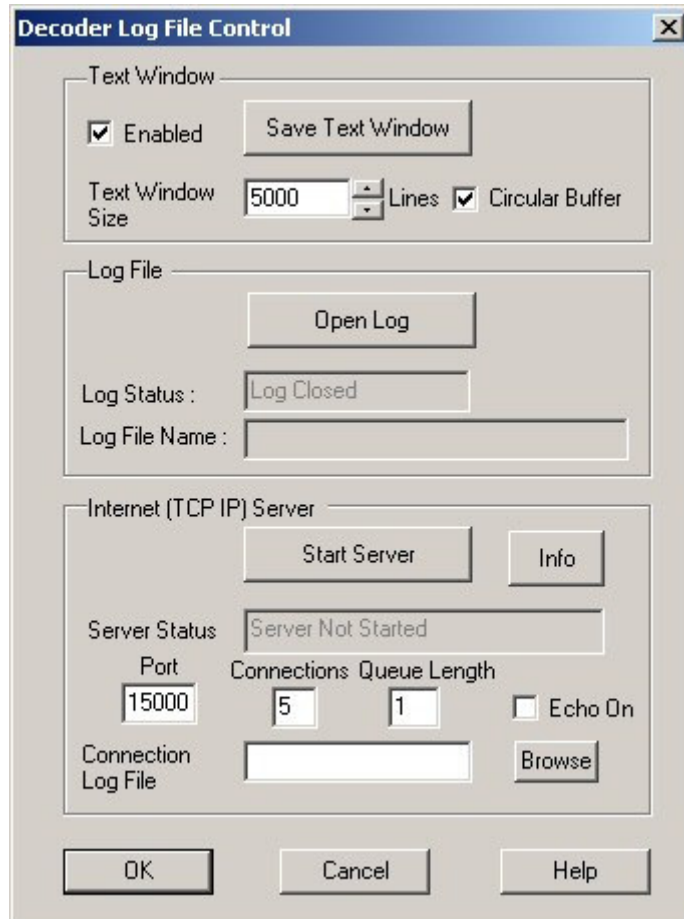
In the above example we can see the 100bps German signal in our right-hand window, a 200bps signal would appear in the left-hand window as we tuned in to it. This means that you don't need to change the 'Config' setting every time you come across a different speed, the windows will automatically start decoding when they detect a signal that matches the speed we have selected in our config menu.

Once this is set up you will find that you can open the window and get started very quickly, though one thing I always do at the start of a listening session is to open a Log Window and save all of my decodes into text files, in the next section I have given a description of how to do this.

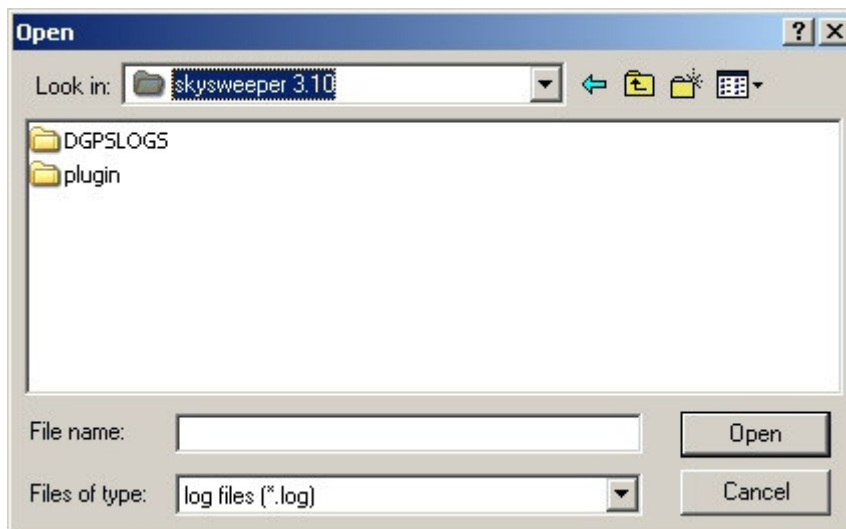
## Setting up the “Save-As” Window:

This is something that you can do at the start of each listening session, and is a very useful function, as it enables you to have a text copy of all the decodes that appeared in the Skysweeper window during your session, and this is very important if you should leave the programme running unattended at night, as the window will only store a limited amount of data, and scrolling through it can be quite arduous.

1. In our left-hand 200bps window click on the “Save” button on the Skysweeper toolbar.
2. The following window will now appear:



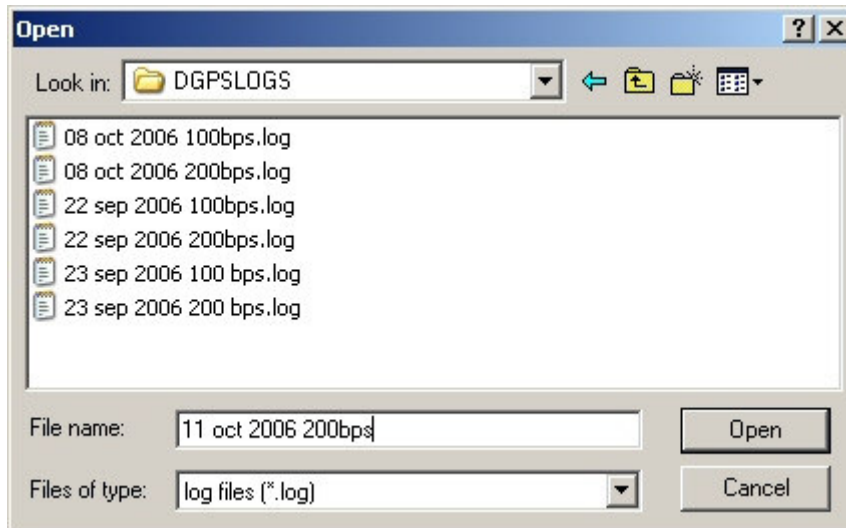
3. Click on the “Open Log” button and the following window will appear:



Note# In my example above I have created a new folder and called it “DGPSLOGS”, I usually open this and save any new logs into there, as we will see in the next example (Note# if you are worried about this having a similar name to the .cfg file you can use something entirely different, anything you are happy with is okay!).

4. We now need to give our session a file name, I would normally call mine something like “**11 oct 2006 200bps**”, but you can call this anything you want. Personally I find that using the date makes it easier to find your files again afterwards if you need to, but do be sure to indicate the Baud rate if you do it this way, other wise if you use the same date in your other window all your data will end up in a single file, and you'll have no way of knowing if it was a 100 or 200bps signal you were receiving!

From the following image you can see that I chose to name this file like the example above!



5. Next we need to click on the “Open” button, and our programme will now automatically log anything that we receive during our session (please note that Skysweeper normally uses to system clock to time stamp messages, which is okay for us folks in the UTC + 0 hours zone, but can be a problem for people in other parts of the world – it’s a shame that Skysweeper doesn’t yet have a ‘use UTC’ function like the SeaTTY and TrueTTY programmes do!).
6. Next we need to repeat the procedure for the other window, but ensure that our log file is called something like “11 oct 2006 100bps”, we are then already to start having fun and receiving signals!

If you need to get at your old logs just use something like Windows Explorer to find the Skysweeper folder, and look for the folder containing your logs (you can see now why I created one named “DGPSLOGS” – much easier to find them again, though if you use the programme a lot just make a shortcut on your Windows desktop and you can access them very quickly and easily.

The above instruction might all sound a bit complex, but aren’t really, and I just timed the whole procedure on my PC at 39 seconds from opening the programme to actively decoding and logging to text file my local DGPS signals – please do give at all a try, it will become very easy once you’ve done it a few times!