Latitude and Longitude

•*How can we store Latitude and longitude in each frame header?*

Sometimes the host computer has a lat/long sensor and the user wants the data stored in the DIDSON data file and read correctly from our topside display. Latitude and longitude can be stored in each frame header in the form "ddd.dddd", a double-precision floating point number that encodes degrees in the integer part of the number, and minutes in the remainder. The information is decoded as:

Degrees = (int)(ddd.dddd) e.g. l37.4952 = 137 degrees
Minutes = 60.0 * fmod(ddd.dddd, 1.0) e.g. 137.4952 = 29.712 minutes
Or 137.4952 = 137 degrees, 29.712 minutes

North and East are defined as positive, South and West are defined as negative.

This information located in the frame headers according to the .ddf file format as described in *DIDSON Vx.xx.xx Data File and Ethernet Structure* document.