Subject: Matching Lats and Lons from two arrays
Posted by wilsona on Tue, 26 Aug 2008 15:47:02 GMT
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I have 2 seperate arrays of Latittudes and Longitudes.
CS_LATLON(0,4607) is one latitude array and dlat(192,139) is the
other
CS_LATLON(1,4607) is one longitude array and dlon(192,139) is the
other.
I want to index through each element in both CS_LATLON arrays and
find
which point(s) in the dlat and dlong arrays are closest.
I tried using nested loops but that gave me 12 million+ loops which
is
too many for my liking. I now am trying search2d

```
NUM_PNTS  = N_ELEMENTS(CS_LATLON(0, *)) - 1

  FOR J = 0, NUM_PNTS DO BEGIN
     CLOSE_LATS = SEARCH2D(dlat, 0, 0, CS_LATLON(0,J),
CS_LATLON(0,J), INCREASE=0.5,    $
                        DECREASE=0.5)
     lat1   = CS_LATLON(0,J) * PI / 180.0
     FOR K = 0, CLOSE_LATS DO BEGIN
           lat2   = dlat(K) * PI / 180.0
           d_long = CS_LATLON(1,J) - dlon(K)) * PI / 180.0
           DISTANCE   = 10800.0 / PI * acos(sin(lat1) * sin(lat2)
+
cos(lat1) *      $
                              cos(lat2) * cos(d_long))
      ENDFOR ; K
  ENDFOR ; J
```

This is not working they way I would like. Any suggestions on this
would be greatly appreciated.