Subject: Re: read irregular data
Posted by Marco on Fri, 22 Jun 2012 13:40:43 GMT
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Le 21/06/2012 22:23, k_ghreep@yahoo.com a ï¿½crit :
> Dear all
> The following data represents the output of numerical model
> and consists of 42 lines header with 9 time intervals air masses back
> trajectory.
> each interval consists of 3 columns as follows ( time in SECS
> LONGIT LATIT)
>
> Please note that, each intervals are not regular in number of
> recorders.
> Just I would like to read each interval for later plotting on a map,
> Thank you very much for any suggestions
>
>
> 42 Number of header
> lines
> ********** *********
> * *
> * MODEL OUTPUT *
> * FOR ECMWF WINDFIELDS *
> * *
> ********** *********
> * *
> * TIME OF COMPUTATION:
> *
> * *
> ********** *********
> * *
> * TYPE OF TRAJECTORIES: 3-DIMENSIONAL *
> * *
> ********** *********
> * *
> * INTEGRATION SCHEME: PETTERSSEN *
> * INTERPOLATION METHOD: IDEAL *
> * *
> * SPATIAL CFL CRITERION: 5.00 *
> * TEMPORAL CFL CRITERION: 5.00 *
> * *
> ********** *********
> * *
> * START POINT COMMENT: 1 *
> * MODEL RUN COMMENT: Test run #1 *
> * *
> ********** *********

```
> *                                                    *
> * INFORMATION ON WIND FIELDS USED FOR COMPUTATIONS:                *
> *                                                    *
> * NORMAL INTERVAL BETWEEN WIND FIELDS:  21600 SECONDS              *
> * MAXIMUM INTERVAL BETWEEN WIND FIELDS:  43200 SECONDS             *
> *                                                    *
> * NUMBER OF VERTICAL LEVELS:   26  26                        *
> *                                                    *
> * MOTHER DOMAIN:                                        *
> * LONGITUDE RANGE: -179.00 TO  181.00   GRID DISTANCE:   1.00      *
> * LATITUDE RANGE:   -90.00 TO   90.00   GRID DISTANCE:   1.00      *
> *                                                    *
>  ****************************************************** *********
>
> DATE: 20100101    TIME:      0    STOP INDEX: 4    # OF POINTS:    0
>      SECS   LONGIT    LATIT
> DATE: 20100101    TIME:   60000    STOP INDEX: 4    # OF POINTS:   22
>      SECS   LONGIT    LATIT
>         0  30.5500  31.2200
>     10800  31.0777  31.4712
>     21600  31.6980  31.7378
>     32400  32.3754  32.0158
>     43200  32.9813  32.4832
>     54000  33.6279  33.2968
>     64800  34.4324  34.3679
>     75600  35.8784  35.7241
>     86400  37.1938  36.6814
>     97200  38.1794  37.4886
>    108000  38.7108  38.5233
>    118800  40.1978  39.9576
>    129600  42.6493  41.5745
>    140400  44.8202  42.6815
>    151200  46.4813  43.5226
>    162000  47.0513  43.8971
>    172800  48.0893  43.8713
>    183600  49.1949  43.4122
>    194400  50.6004  42.3263
>    205200  51.7657  41.3240
>    216000  53.2761  41.0896
>    226800  55.5605  41.2063
> DATE: 20100101    TIME:  120000    STOP INDEX: 4    # OF POINTS:   20
>      SECS   LONGIT    LATIT
>         0  30.5500  31.2200
>     10800  31.1682  31.4713
>     21600  31.8679  31.6866
>     32400  32.6110  32.0530
>     43200  33.4240  32.7381
>     54000  34.3778  33.7165
```

>     64800  35.8898  34.9839
>     75600  37.8033  35.7301
>     86400  39.0342  36.4301
>     97200  40.0964  37.3989
>    108000  41.6892  38.6696
>    118800  42.8528  40.3789
>    129600  44.6289  41.9685
>    140400  46.3746  42.4304
>    151200  47.1344  42.6131
>    162000  48.1750  42.6243
>    172800  49.4949  42.5143
>    183600  50.6283  42.7033
>    194400  52.2155  42.6926
>    205200  54.4112  42.5193
> DATE: 20100101    TIME:  180000    STOP INDEX: 4    # OF POINTS:   18
>       SECS   LONGIT    LATIT
>          0  30.5500  31.2200
>      10800  31.3085  31.5033
>      21600  32.2164  32.0014
>      32400  33.2297  32.8015
>      43200  34.4234  33.9005
>      54000  36.2144  35.2356
>      64800  37.8611  36.1156
>      75600  39.1425  37.1494
>      86400  40.9643  38.5659
>      97200  43.1172  40.5963
>     108000  45.5329  42.0181
>     118800  46.8191  42.3172
>     129600  47.7209  42.5622
>     140400  49.1237  42.4815
>     151200  50.6489  43.0787
>     162000  52.3758  43.8381
>     172800  53.8833  44.2909
>     183600  55.4246  45.0765
> DATE: 20100102    TIME:      0    STOP INDEX: 4    # OF POINTS:   16
>       SECS   LONGIT    LATIT
>          0  30.5500  31.2200
>      10800  31.5468  31.8390
>      21600  32.7216  32.6781
>      32400  34.0606  33.6989
>      43200  35.5776  35.1445
>      54000  37.3782  36.4714
>      64800  38.7394  37.7928
>      75600  40.9615  39.6831
>      86400  44.1912  41.3853
>      97200  46.4424  42.0052
>     108000  47.1171  42.4249
>     118800  48.2654  42.5881

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>    129600  49.7993  42.7742
>    140400  51.5350  43.6455
>    151200  53.3482  43.9259
>    162000  54.9458  44.3800
> DATE: 20100102    TIME:   60000    STOP INDEX: 4    # OF POINTS:   14
>      SECS   LONGIT    LATIT
>         0  30.5500  31.2200
>     10800  31.7302  31.9751
>     21600  33.2611  32.7041
>     32400  34.8288  33.4798
>     43200  36.3224  34.5193
>     54000  38.5113  35.4678
>     64800  40.5695  36.3747
>     75600  42.4247  37.5182
>     86400  44.1585  38.7338
>     97200  46.3204  39.4980
>    108000  49.0233  40.1062
>    118800  51.7948  40.6226
>    129600  54.4813  41.0795
>    140400  57.4778  41.6037
> DATE: 20100102    TIME:  120000    STOP INDEX: 4    # OF POINTS:   12
>      SECS   LONGIT    LATIT
>         0  30.5500  31.2200
>     10800  31.9207  31.9008
>     21600  33.4917  32.6204
>     32400  35.2970  33.3300
>     43200  37.1154  34.2255
>     54000  39.0265  34.9293
>     64800  40.6784  35.1554
>     75600  42.1254  35.2001
>     86400  43.5465  35.3211
>     97200  44.7946  35.6273
>    108000  46.4071  36.5751
>    118800  48.1721  37.5915
> DATE: 20100102    TIME:  180000    STOP INDEX: 4    # OF POINTS:   10
>      SECS   LONGIT    LATIT
>         0  30.5500  31.2200
>     10800  31.8881  31.4070
>     21600  33.3066  31.5165
>     32400  34.7307  31.6514
>     43200  35.8533  31.9348
>     54000  37.2701  32.1413
>     64800  38.7396  32.3894
>     75600  40.1524  32.6616
>     86400  41.4610  32.7791
>     97200  42.5568  33.0416
> DATE: 20100103    TIME:      0    STOP INDEX: 4    # OF POINTS:    0
>      SECS   LONGIT    LATIT
```

Hi,

I found an old code I wrote to read FLEXTRA model output. I don't know if it still working but I think you can use it as a base to write your own code.
It searches in the file the longest trajectory and then store each trajectory in an array and in another array the number of points of each trajectory

you can download it with this link
https://www.dropbox.com/s/noel4599mbpx87q/read_flextra.pro

Marco

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