Subject: Daily to monthly
Posted by manikbali on Tue, 16 Dec 2014 04:10:15 GMT
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Hi
I have daily satellite scan files of soil moisture from 1979 - 2008. I want to convert it into monthly values.
What is the best way to to it.
-GlanPlon

Subject: Re: Daily to monthly
Posted by Craig Markwardt on Tue, 16 Dec 2014 17:49:27 GMT
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On Monday, December 15, 2014 11:10:17 PM UTC-5, mani...@gmail.com wrote:
> Hi
> I have daily satellite scan files of soil moisture from 1979 - 2008. I want to convert it into monthly values.
> What is the best way to to it.

Decimation, averaging, and taking the median are all viable methods. What do you need?

Subject: Re: Daily to monthly
Posted by manikbali on Tue, 16 Dec 2014 18:21:44 GMT
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Hi Craig,
I need Monthly means where missing values are taken care of
Glan

Subject: Re: Daily to monthly
Posted by Craig Markwardt on Wed, 17 Dec 2014 20:54:15 GMT
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On Tuesday, December 16, 2014 1:21:46 PM UTC-5, mani...@gmail.com wrote:
> Hi Craig,
> I need Monthly means where missing values are taken care of

Average = sum / n_points

The only trick is that n_points could be different depending on missing data. So if I had an array of values DATA[*,*] where DATA[i,j] is the ith position on the jth day, and missing value is -999, I could sum them like this,

```
 tot = 0 ;; cumulative sum of data values
 npt = 0 ;; cumulative sum of number of good data values
 for j = 0, NDAYS-1 do begin
  mask = data[*,j] NE -999  ;; mask of good values only, 1=good
  npt = npt + mask          ;; add to number of good values
  tot = tot + (data[*,j]*mask) ;; add good vals to cumulative data sum
 endfor

 ;; Compute average
 av = tot / npt
```

Craig

Subject: Re: Daily to monthly
Posted by lecacheux.alain on Fri, 19 Dec 2014 09:31:59 GMT
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On Wednesday, December 17, 2014 9:54:17 PM UTC+1, Craig Markwardt wrote:
> On Tuesday, December 16, 2014 1:21:46 PM UTC-5, mani...@gmail.com wrote:
>> Hi Craig,
>> I need Monthly means where missing values are taken care of
>
> Average = sum / n_points
>
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>     npt = npt + mask          ;; add to number of good values
>     tot = tot + (data[*,j]*mask) ;; add good vals to cumulative data sum
>   endfor
>
>   ;; Compute average
>   av = tot / npt
>
```
> Craig

Hi Craig,
Note that you might simply do:

```
 mask = data ne -999
 av = Total(data*mask, 2)/Total(mask, 2);   daily average
 av = Total(data*mask)/Total(mask);         overall average
 etc...
```

alx.