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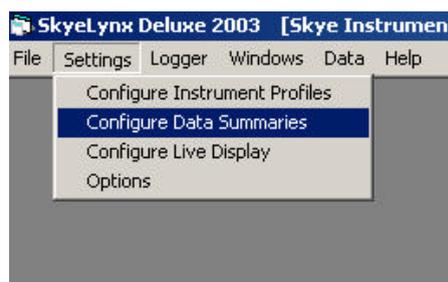
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SKYELYNX DELUXE Data Summaries

One of the most useful ways to view and compare your data is by using Data Summaries. This facility calculates key values in your data, and shows them in tables. This allows you to compare data from any dates and any Instruments.

In order to view a data summary, you must first configure the summary information that you wish to view. To setup a data summary, click "Settings" on the main menu, then "Configure Data Summaries", as shown opposite.



This will take you into the Summary Configuration Module screen, as shown below.

	Instrument name :	Channel name :	Starting Date :	Additional Statistics :
01	MiniMet at Skye	Relative Humidity	01/06/2007	<input checked="" type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total
02	MiniMet at Skye	Air Temperature	01/06/2007	<input checked="" type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total
03	MiniMet at Skye	Sunshine	01/06/2007	<input checked="" type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total
04	MiniMet at Skye	Soil Temperature	01/06/2007	<input checked="" type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total
05	MiniMet at Skye	Wind Speed	01/06/2007	<input checked="" type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total
06	MiniMet at Skye	Wind Direction	01/06/2007	<input type="checkbox"/> Mean <input checked="" type="checkbox"/> Mode <input type="checkbox"/> Total
07	MiniMet at Skye	Rain Fall	01/06/2007	<input type="checkbox"/> Mean <input type="checkbox"/> Mode <input checked="" type="checkbox"/> Total
08	MiniMet at Skye	Barometric Pressure	01/06/2007	<input checked="" type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total
09			01/06/2007	<input type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total
10			01/06/2007	<input type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total
11			01/06/2007	<input type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total
12			01/06/2007	<input type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total
13			01/06/2007	<input type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total
14			01/06/2007	<input type="checkbox"/> Mean <input type="checkbox"/> Mode <input type="checkbox"/> Total

X - Time Value to show : 08:00:00

Show X-Time Value

Use Vectorial Mode for Wind Direction

Use Flexible Summary periods

Total length of Summary period : 1 month

Period of individual summaries : Monthly

Times for Day Files : 00:00:00 -> 23:59:59

There are 25 possible entries for each data summary. Each entry can contain any channel from any of your instrument profiles. Use the pull down menu in the "Instrument Name" column to select the Instrument Profile that you wish to use for each of the 25 summary lines. The pull down menu in the "Channel Name" column will now change to contain all the software channels that you have setup in that profile.

N.B. You may use any number of lines between 1 and 25 for a summary

Every Summary line contains at least the following,

- **Max** - The Maximum Value recorded for that channel between the specified dates
- **Min** - The Minimum Value recorded for that channel between the specified dates

In addition you can display one, two or all of the following for each line,

- **Total** The cumulative total of all the readings over the specified dates. This is particularly aimed at readings such as Rainfall, or Sunshine, to allow you to view total amount of Rainfall over a week, or total Hours of Sunshine over a month
- **Mean** The average value of all those recorded
- **Mode** This is the most common value in the data set. This is useful for channels such as Wind Direction, since if we simply average Wind Direction we get misleading values because for example the average of NNW and NNE (i.e. 350° and 10 °) is Due South (180°). Whereas, if we use the most common value then we will get a More accurate representation.
- **Show value at time X** - This option displays the value of the chosen channel at the time chosen "X". Enter the time in the box as required. Best used for daily summaries.

To select any of these additional statistics for any of the channels, simply click the small box on the right hand side of the screen next to the statistic that you wish to view. Any of the statistics with a tick will be shown.

Summary Periods

There are two fundamental ways in which you can view summaries – Flexible or Non-Flexible, depending on exactly what sort of summary you would like to see.

The Non-Flexible or fixed timescale summary type is most commonly used, e.g. for calendar monthly weather records, as shown in the example below.

For details on Flexible Summaries, please see the SkyeLynx Deluxe manual, chapter 7.

The way to select the dates for each summary line here is to click the small button marked " ..." next to the "Starting Date" column in the main table. This will produce a calendar as shown opposite. Select the dates you require for each line, these may be all the same or different dates, and click OK.

The "Starting Date" column will now be updated to show the Start dates of the summary period.



Non-Flexible summaries allow you to compare channels at user specified intervals, over a fixed period. For instance you could compare two channels every week for 6 weeks. To use non-flexible summaries, make sure there is no tick in the check box entitled "Use Flexible Summaries".

Use Flexible Summary periods

Total length of Summary period: ...

Period of individual summaries: ...

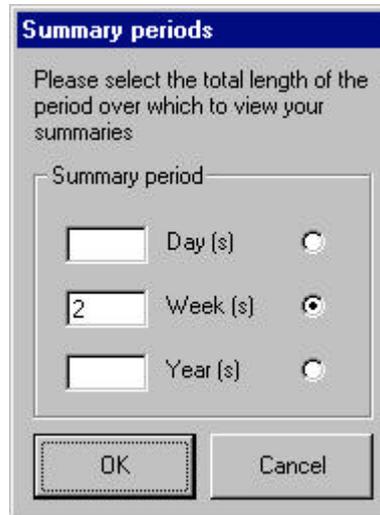
Times for Day Files: ---->

When using non-flexible periods, you must select the Total length of the period for your summary, as well as the period for individual summaries (Every individual Summary is a separate table in the final document).

Total Length of Summary period

This is the overall length of the period over which the summary is spread. To change this, click the small button marked "...". This will produce a form like the one shown opposite. From here you can select either a round figure such as "a day" or an odd figure such as "2 Weeks". This is total length of the summary period that will be examined.

Type the a number in the box you want, i.e. Next to Day(s), Week(s) or Month(s), then press OK.



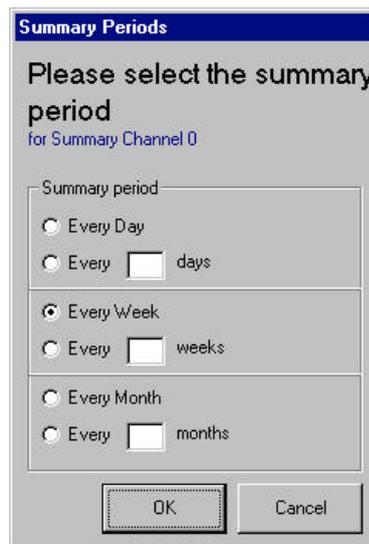
Period of Individual Summaries

You must now select the individual period for the summaries. You can choose a single day, week or Month, or a number of days, weeks or months.

Enter the number of the period that you desire in the box between "Every" and the period description.

The Example opposite shows that summaries will be produced on a weekly basis over the total period.

Click OK when you have selected the period that you desire.



Once you have setup the Summary Period and the period of the individual summaries then you must select a starting date for each channel. Notice that you do not have to select an ending date. This is because the end date is calculated by adding the overall period for the summary onto the starting date.

To view the summary click the button "View This Summary" now. You will be asked to save a Filename for this summary template, and where the .asc file (which can be exported to Excel) will be stored.

An example summary table is shown below. This process can be repeated at will, saving different template summaries as is needed. To view identical summary tables for different dates, e.g. each month, simply change the start date and click View again.

Data Summary table Daily data taken between the times 00:00:00 and 23:59:59

Fixed Length periods

Instrument_Name	Channel_Name	Minimum	Maximum	Mean	Mode	Total	(Average)_Value_of_00:00:00	Dates
MniMet at Skye	Relative Humidity	45.17	100	11.223	-	-	96.359	01/06/2007 - 30/06/2017
MniMet at Skye	Air Temperature	4.214	25.143	14.547	-	-	14.331	01/06/2007 - 30/06/2017
MniMet at Skye	Sunshine	-1.418	1196.19	172.204	-	-	245.493	01/06/2007 - 30/06/2017
MniMet at Skye	Soil Temperature	12.476	17.832	15.789	-	-	15.276	01/06/2007 - 30/06/2017
MniMet at Skye	Wind Speed	0	0	0	-	-	0.0	01/06/2007 - 30/06/2017
MniMet at Skye	Wind Direction	0	355	-	0	-	185.0	01/06/2007 - 30/06/2017
MniMet at Skye	Rain Fall	0	0.99	-	-	154.62	0.013	01/06/2007 - 30/06/2017
MniMet at Skye	Barometric Pressure	975.548	1005.403	985.131	-	-	985.177	01/06/2007 - 30/06/2017

** = missing data