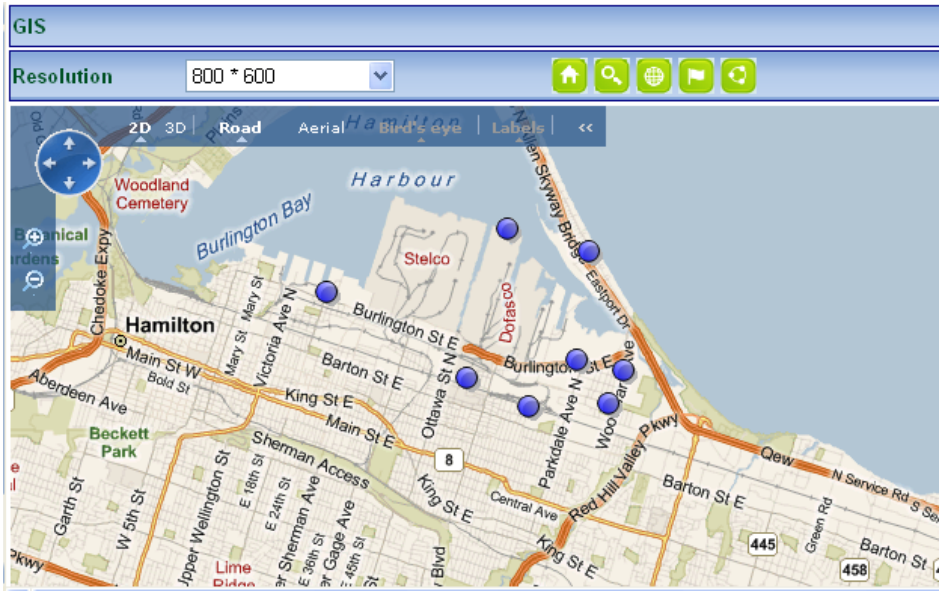
Interactive/ Network Map

Click on the **Real-Time Data -> Interactive Network Map** sub-menu link to access the geographically mapped air monitoring stations in Hamilton and detailed information related to each station.
Clicking on this tab will open the following map of Hamilton.



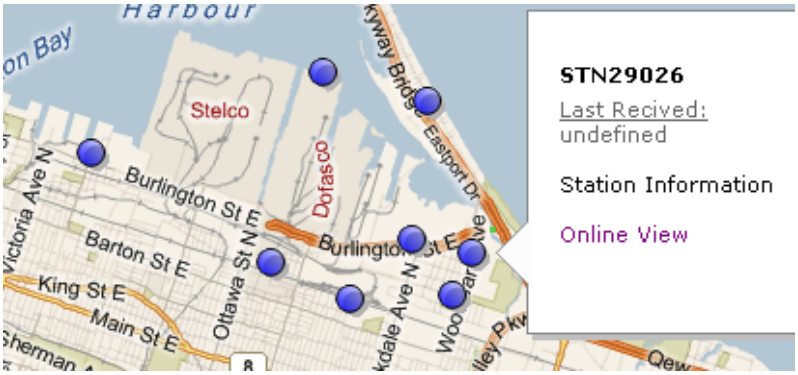
The Interactive Map includes several options seen below.

Using these icons, one can:

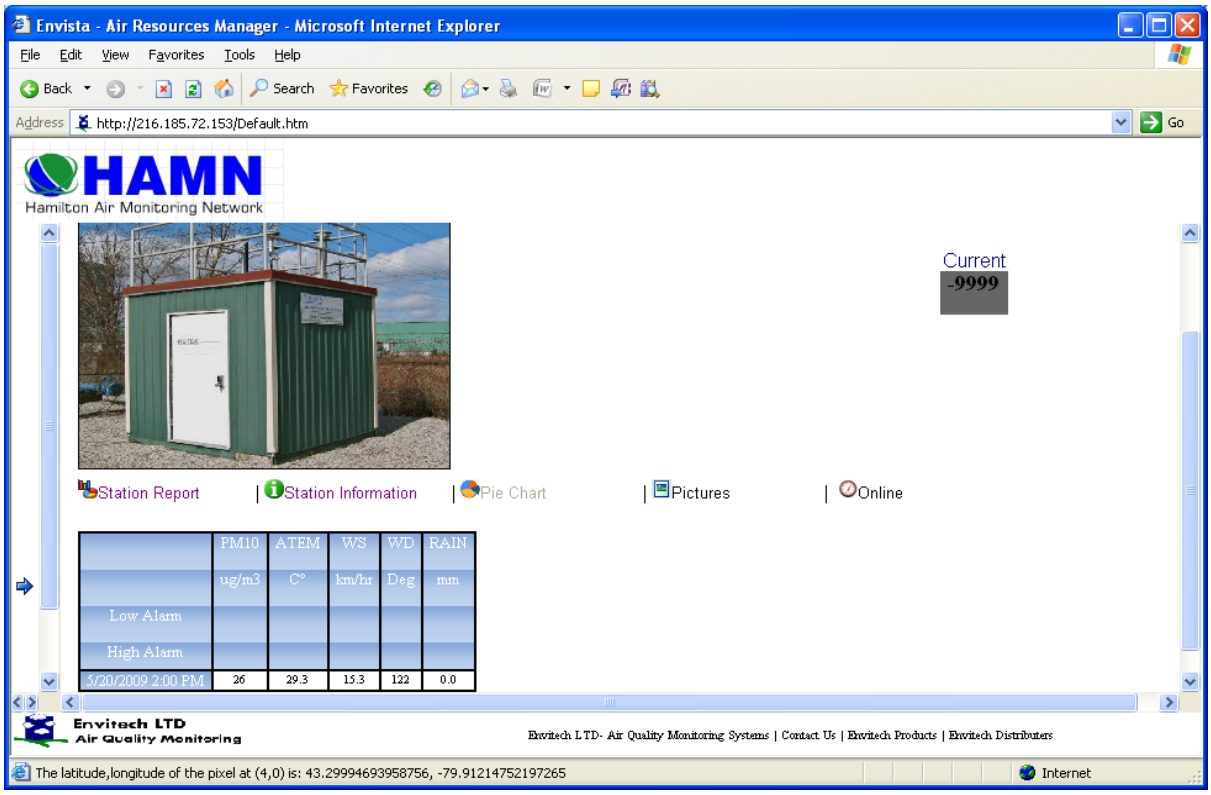
- return to the default map 
- search 
- view a more detailed map of a smaller area 
- view wind direction* 
- view current traffic conditions 

*note that arrows represent the direction wind is blowing FROM, as per international convention

The Interactive Map also includes several blue markers.

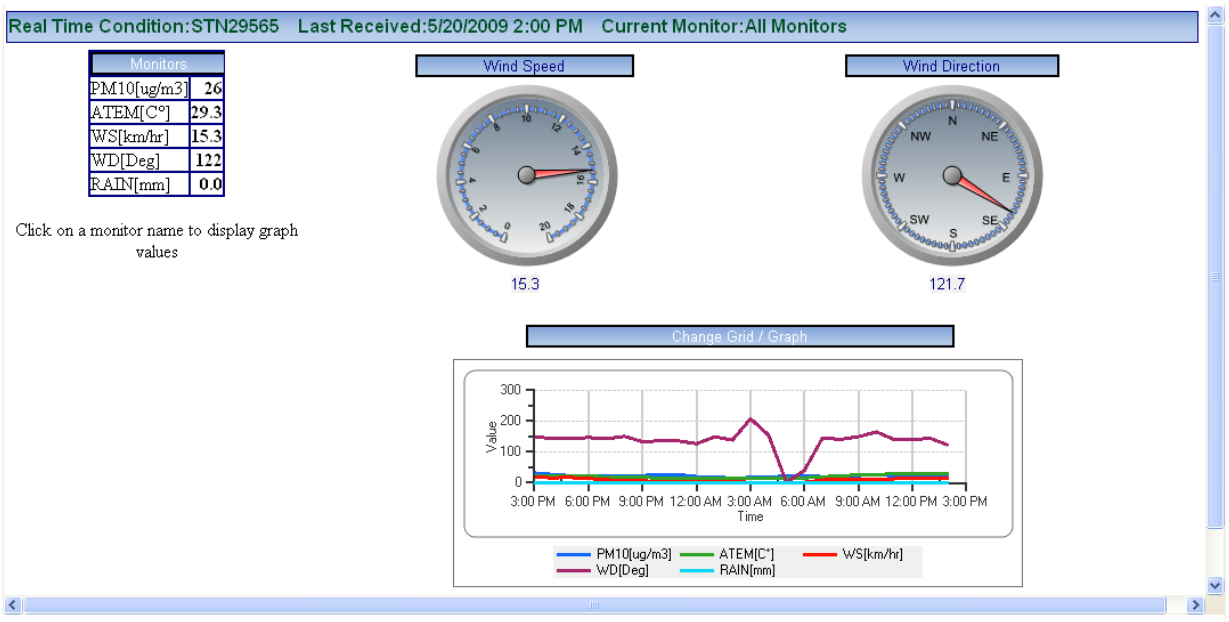


Each blue marker represents an air monitoring station. Move the cursor over a blue marker to reveal the station name, the date of last information received, Station Information and Online View. Station Information and Online View can be clicked to reveal more detailed information about each station. Station Information includes links to station reports, detailed station information, pictures and online real time data.



Select Pictures to view images of each station from several different perspectives. Move the cursor over the blue arrows to view images of the station from the north, south, east and west as well as NW, SW, NE and SE. Hovering over 'inside station' will reveal a picture taken inside the station. Single click to enlarge images, click again to return to the default size.

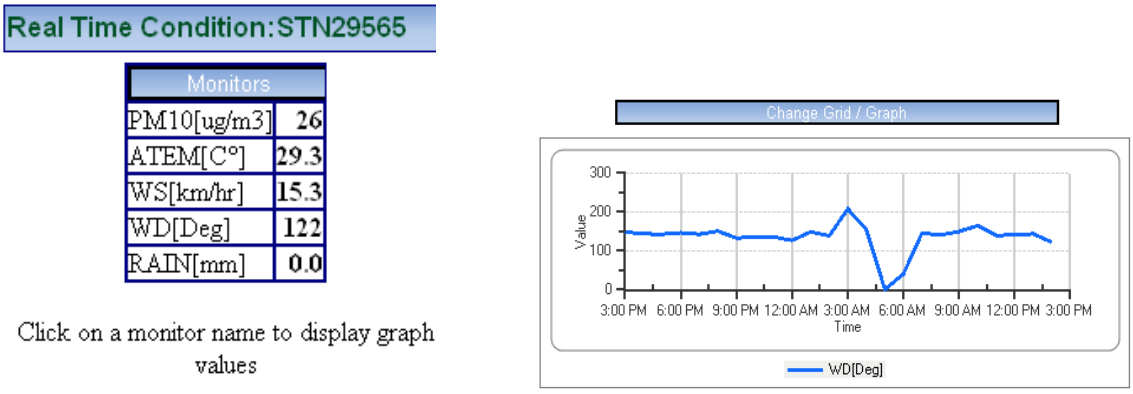
Online View reveals real time conditions for the selected station as seen below.



Please note that the Wind Direction gauge depicts which direction the wind is blowing **from**. For example, a west wind is blowing from 270º.

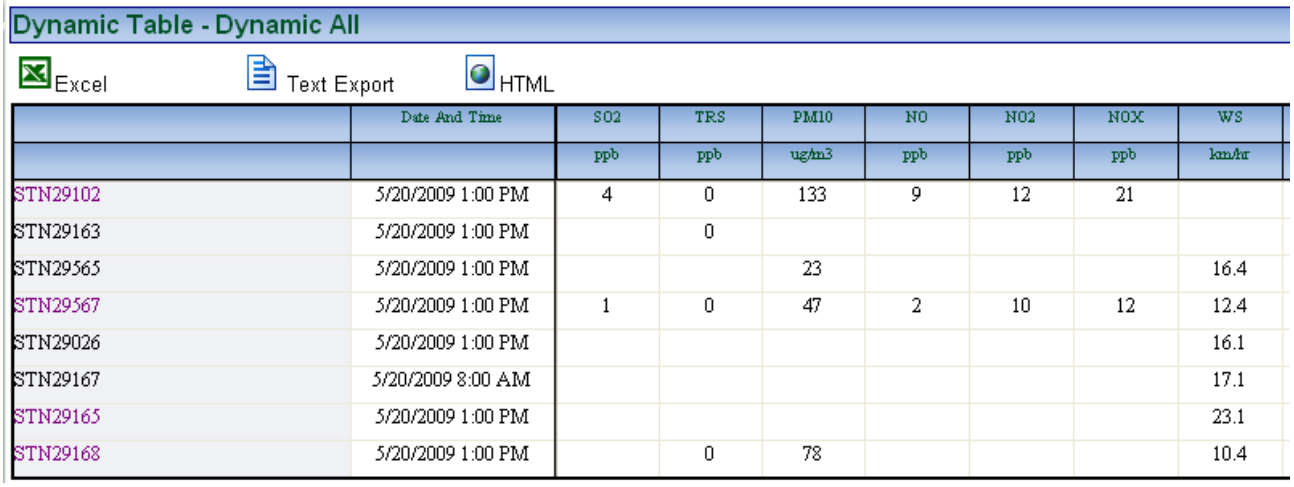
Current readings for Wind Speed, Wind Direction, Monitor levels and a Change Grid can all be found on this screen.

Click on any monitor name to display graphed values for each pollutant over time.



Dynamic Table

Click on **Real-Time Data -> Interactive Dynamic Table** sub-menu link to access current data in tabular form. This table includes the stations present (rows) and the monitors available in each station (columns). Values presented are current data for each monitor in each station.



Dynamic Table - Dynamic All

Excel Text Export HTML

	Date And Time	SO2	TRS	PM10	NO	NO2	NOX	WS
		ppb	ppb	ug/m3	ppb	ppb	ppb	km/hr
STN29102	5/20/2009 1:00 PM	4	0	133	9	12	21	
STN29163	5/20/2009 1:00 PM		0					
STN29565	5/20/2009 1:00 PM			23				16.4
STN29567	5/20/2009 1:00 PM	1	0	47	2	10	12	12.4
STN29026	5/20/2009 1:00 PM							16.1
STN29167	5/20/2009 8:00 AM							17.1
STN29165	5/20/2009 1:00 PM							23.1
STN29168	5/20/2009 1:00 PM		0	78				10.4

Clicking on a station name will open the Station Information screen for the selected station.

Reports

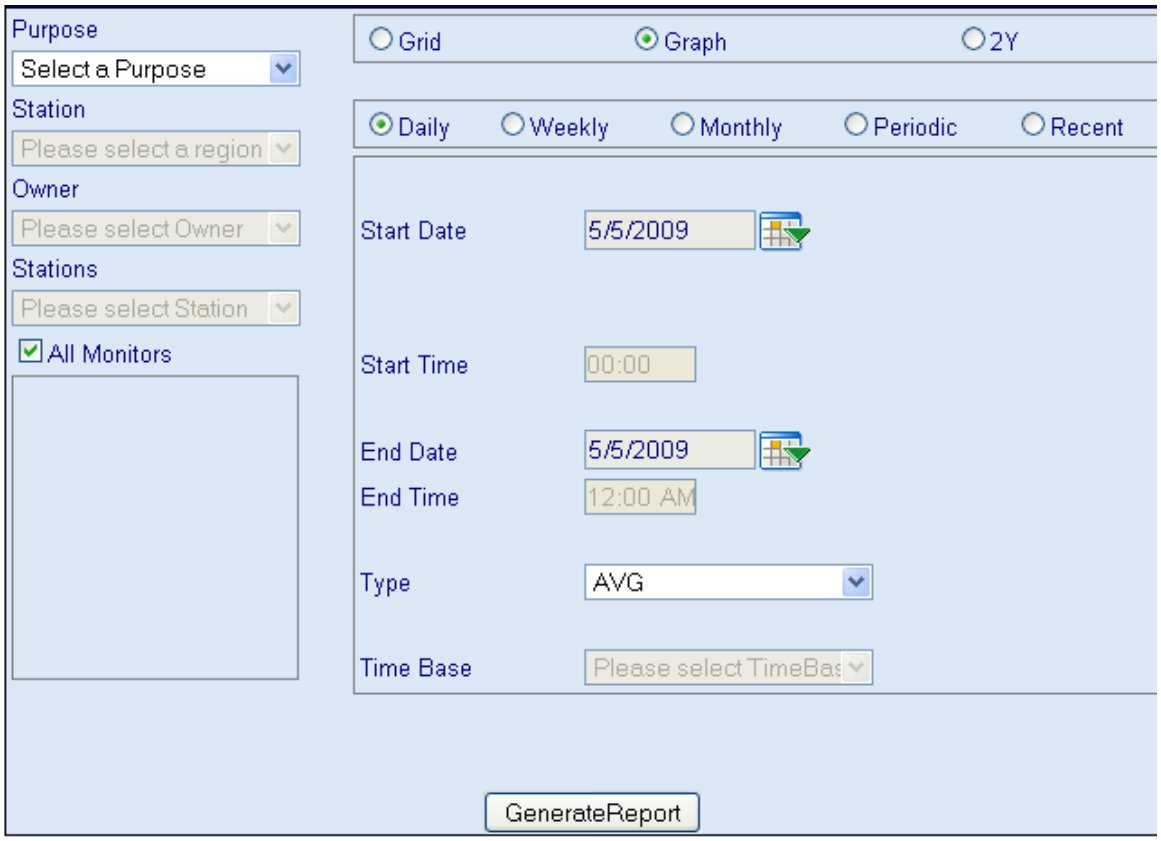
Click on the **Real-Time Data** menu link main menu link and the available reports will appear in a drop down list box below the menu item:

- Station Report
- Matrix Report
- XY / 2Y
- Wind Rose and Pollution Rose Analyses
- Polar Time, Wind Polar and Scatter Analyses
- Histogram Analysis
- Groups Report

Station Report

The station report is a tabular or graphic report for a selected station, for selected monitors for a selected period of time.

Clicking on the **Real-Time Data -> Station Report** sub-menu link will open the following window.



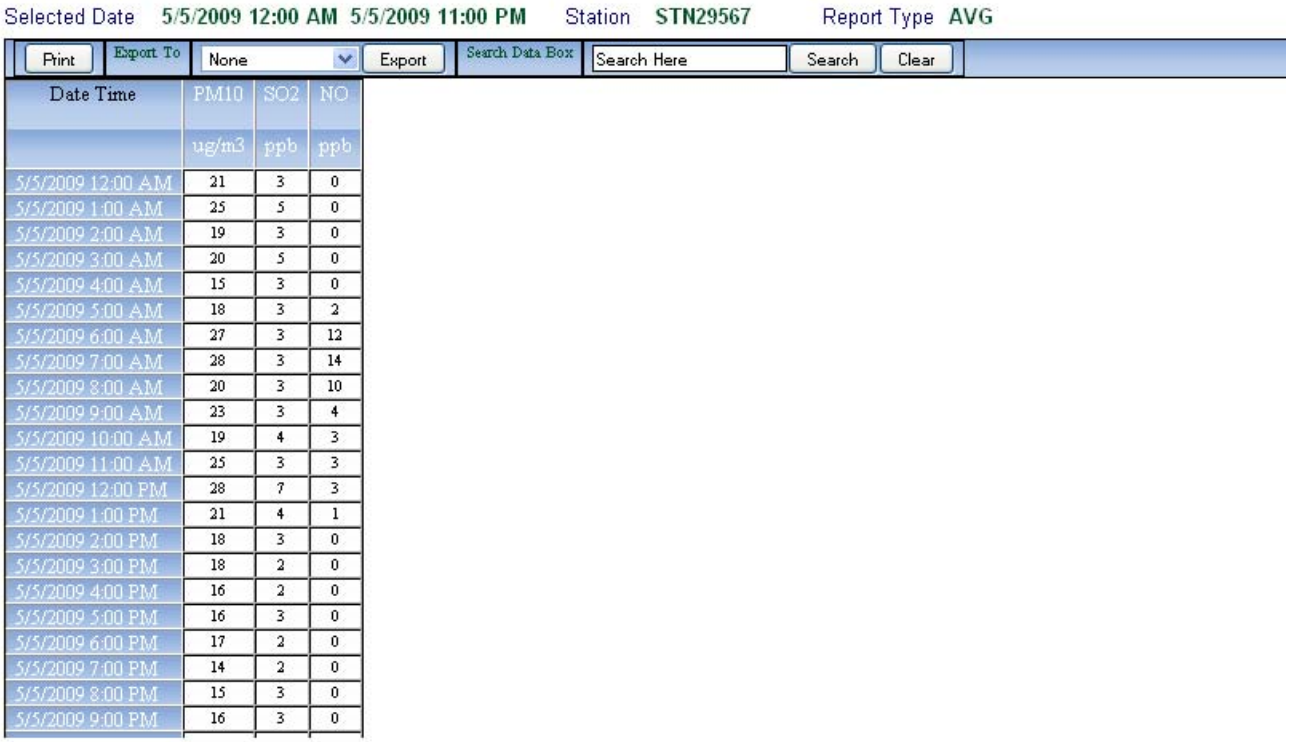
To produce a Station Report:

Select "Grid" for a tabular presentation, "Graph" for a graphic presentation.

- In the Purpose tab dropdown menu, select “All”
- In the first Station tab dropdown menu, select “All”.
- In the Owner tab dropdown menu, select “All”
- In the second Stations tab dropdown menu, select the station number at which the pollutant of interest is being measured.
- In the Monitors tab dropdown menu, check “All Pollutants” or select the pollutants of interest.
- Select the period of time you wish to cover, "Daily", "Weekly", "Monthly", or "Periodic" (for a period of time that is not one of the above).
- Select (by typing in the date or by clicking on the  buttons that let you choose the date) into the next tabs the date & time for start and end.
- Select from the "Avg" tab dropdown menu the type of data you wish to display, i.e., Avg (Average), Min (minimum), Max (maximum), Running Min (Minimum Running), Running Max (Maximum Running), Running AVG (average running) or Running Forward.

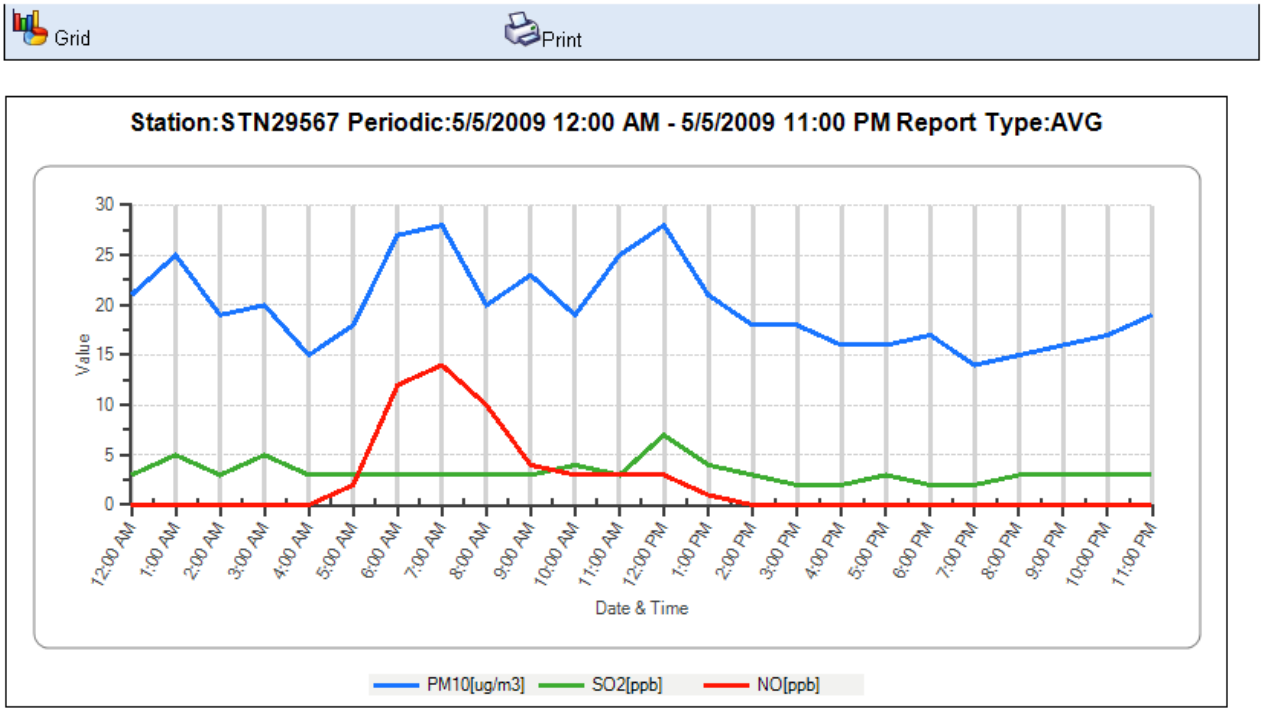
- In the Time Base tab dropdown menu, select 1 hour or other averaging time as desired.
- Click on the GenerateReport button.

Below is the tabular version of a Station Report, for PM10, SO2 and NO.



Date Time	PM10	SO2	NO
	ug/m3	ppb	ppb
5/5/2009 12:00 AM	21	3	0
5/5/2009 1:00 AM	25	5	0
5/5/2009 2:00 AM	19	3	0
5/5/2009 3:00 AM	20	5	0
5/5/2009 4:00 AM	15	3	0
5/5/2009 5:00 AM	18	3	2
5/5/2009 6:00 AM	27	3	12
5/5/2009 7:00 AM	28	3	14
5/5/2009 8:00 AM	20	3	10
5/5/2009 9:00 AM	23	3	4
5/5/2009 10:00 AM	19	4	3
5/5/2009 11:00 AM	25	3	3
5/5/2009 12:00 PM	28	7	3
5/5/2009 1:00 PM	21	4	1
5/5/2009 2:00 PM	18	3	0
5/5/2009 3:00 PM	18	2	0
5/5/2009 4:00 PM	16	2	0
5/5/2009 5:00 PM	16	3	0
5/5/2009 6:00 PM	17	2	0
5/5/2009 7:00 PM	14	2	0
5/5/2009 8:00 PM	15	3	0
5/5/2009 9:00 PM	16	3	0

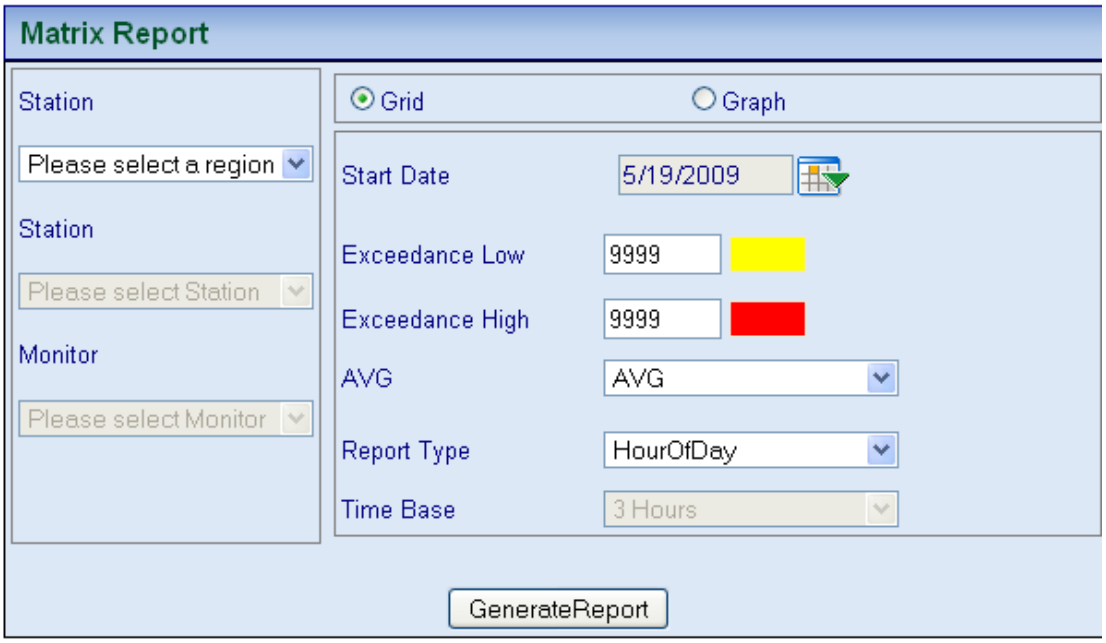
Below is the graphical version of a Station Report, for PM10, SO2 and NO.



Matrix

The matrix report presents pollutant data from a single monitor for a period of month in the format of a matrix, with each cell showing the specific value by date (the rows) and hour (the columns).

Clicking on the **Real-Time Data -> Matrix Report** sub-menu link tab will open the following window.



To produce a Matrix report:

Select "Grid" for a tabular presentation or "Graph" for a graphic presentation.

- In the first Station tab dropdown menu, select “All”.
- In the second Station tab dropdown menu, select the station number at which the pollutant of interest is being measured.
- In the Monitor tab dropdown menu, select the pollutant of interest.
- Select the start date & time by typing in the date or by clicking on the buttons into the next tab.

The *Exceeding* text boxes allow entry of two levels of data that will be used to calculate the number of values above that level. Enter 9999 to disable the check. The top box must always hold the lower of the two “exceeding” values, and the cells will be colored in different colors according the configuration of these values:

- The report will show in YELLOW color the number of values greater than or equal to the first level entered but not greater than or equal to the second (higher) level.
- The report will show in RED color it will show the values that are greater than or equal to the higher level.
- The report will show in WHITE color the values that are below the low level.

- Enter Low Exceedance highlight level.
- Enter High Exceedance highlight level.
- Select from the "Avg" tab dropdown menu the type of data you wish to display, i.e., Avg (Average), Min (minimum), Max (maximum), Running Min (Minimum Running), Running Max (Maximum Running), Running AVG (average running) or Running Forward.
- Select the “Report Type”, Hour of Day or Yearly.
- Click on the GenerateReport button.

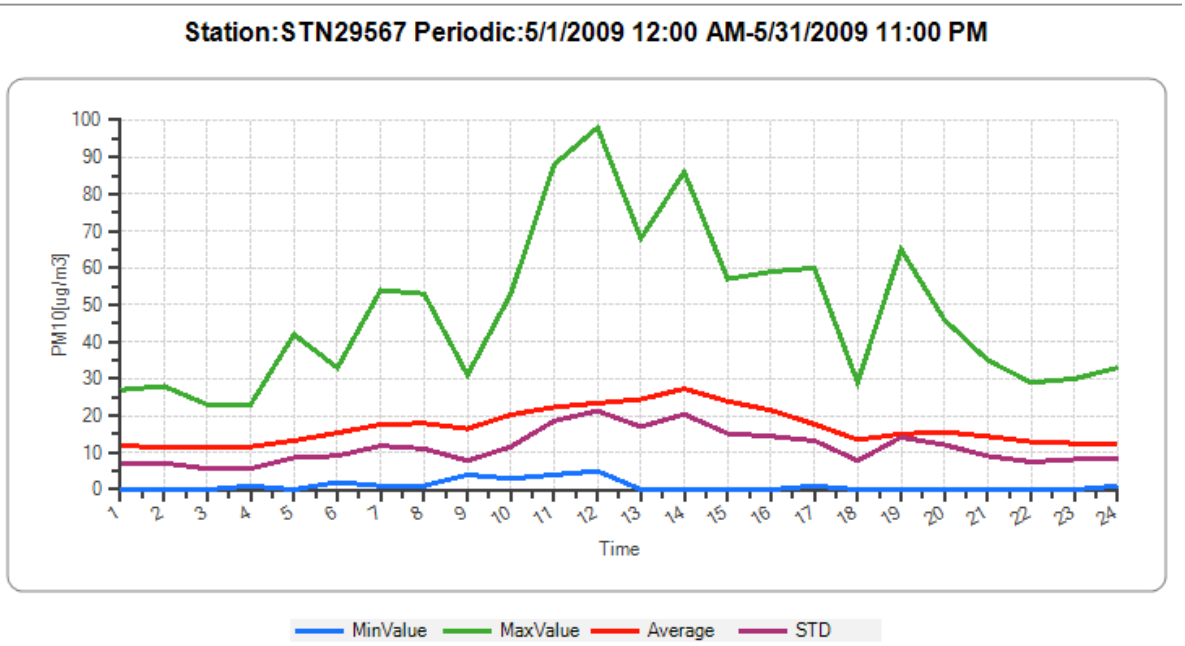
Below is the tabular version of Matrix report, PM10 exceedance values set at 50 and 75 ug/m3.

Selected Date 5/1/2009 12:00 AM 5/31/2009 11:00 PM Station STN29567 Monitor PM10 [ug/m3]

DateTime	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
5/1	15	11	12	5	6	7	10	12	17	18	17	8	18	23	24	20	14
5/2	5	9	14	23	10	10	14	9	9	8	8	7	8	9	13	15	21
5/3	14	18	17	16	14	16	16	13	12	12	13	14	14	16	14	18	19
5/4	18	16	16	15	23	27	15	18	22	25	23	32	47	45	57	51	60
5/5	21	25	19	20	15	18	27	28	20	23	19	25	28	21	18	18	16
5/6	21	18	16	16	18	33	37	53	31	53	88	98	68	86	47	31	24
5/7	10	5	9	12	15	14	16	23	12	17	17	16	29	34	24	24	26
5/8	22	19	14	15	13	17	21	25	27	20	20	23	12	18	29	17	18
5/9	6	8	9	15	42	30	15	18	27	36	21	8	20	7	12	9	5
5/10	8	6	6	7	6	7	8	6	6	6	8	7	8	12	14	12	12
5/11	10	9	10	10	11	15	19	24	11	21	24	23	46	47	37	19	12
5/12	12	12	15	12	15	18	22	20	20	22	12	6	0	0	0	0	1
5/13	0	0	0	1	0	2	1	1	4	32	47	44	35	43	40	39	34
5/14	27	28	23	17	19	23	21	19	18	21	20	32	31	34	30	22	21
5/15	15	7	15	12	12	28	54	17	23	16	15	30	18	30	17	26	3

Below is the graphical version of a Matrix report, showing Min, Max, Avg and Std Deviation for the month.

Selected Date 5/1/2009 12:00 AM 5/31/2009 11:00 PM Station STN29567 Monitor PM10 [ug/m3]



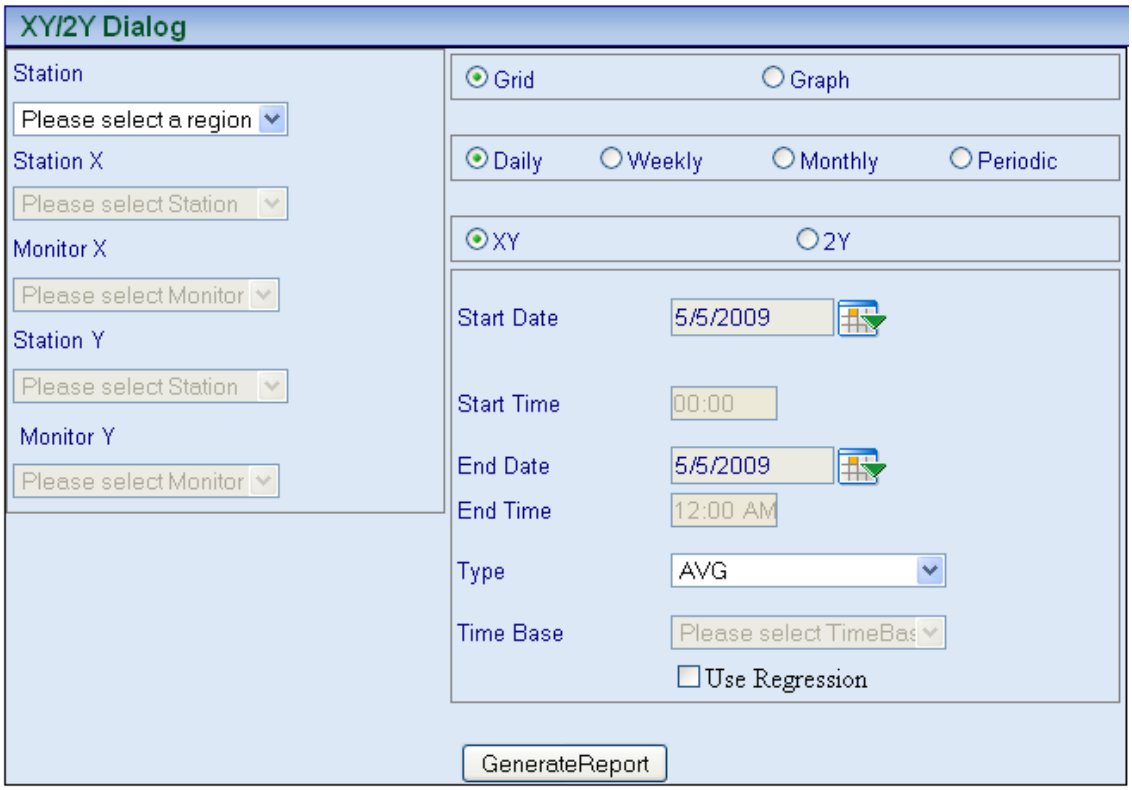
XY/2Y

These XY and 2Y reports show how pollutants vary with other pollutants and are useful mainly in their graphic form.

An XY analysis plots one set of pollutant data against another. It can be a comparison of pollutant versus wind direction \speed, or a comparison between two monitors from the same or different stations. The linear regression line computed for the selected data set can be displayed.

A 2Y analysis presents the values from two monitors with different data ranges plotted versus time. Each data range is adjusted for visibility. The advantage of this analysis is the ability to see both sets of data in a visible scale and make a comparison between them. In a normal graph, if the results from two monitors, one with very high values and the other with very low values, are presented together, the variation in the lower data range cannot be seen.

Clicking on the **Real-Time Data -> XY/2Y** sub-menu link tab will open the following window:



Select "XY" or "2Y' analysis by clicking on the relevant tab in the frame

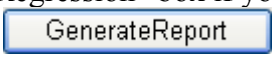
XY Analysis

An XY analysis plots one set of pollutant data against another. It can be a comparison of pollutant versus wind direction\speed, or a comparison between two monitors from the same or different stations. The linear regression line computed for the selected data set can be displayed.

To produce an XY report:

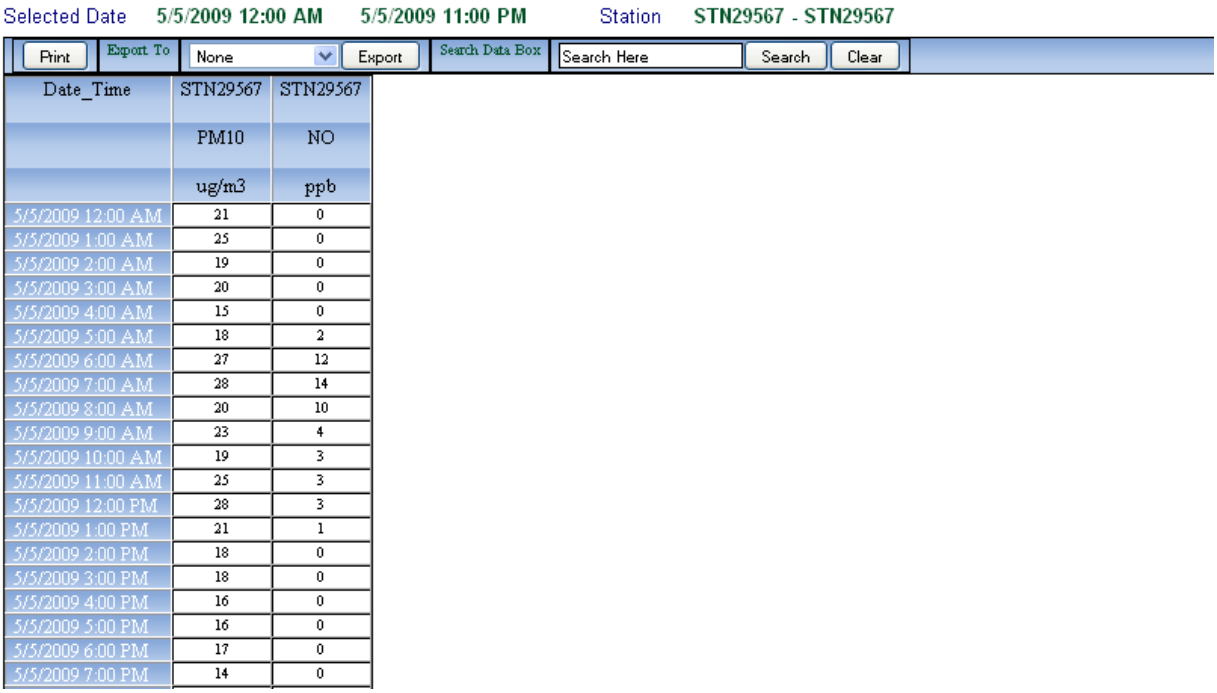
Select "Grid" for a tabular presentation or "Graph" for a graphic presentation.

- In the first Station tab dropdown menu, select “All”.
- In the Station X tab dropdown menu, select the station number at which the first pollutant of interest is being measured (X axis of graph).
- In the Monitor X tab dropdown menu, select the first pollutant of interest.
- In the Station Y tab dropdown menu, select the station number at which the second pollutant of interest is being measured (Y axis of graph).
- In the Monitor Y tab dropdown menu, select the second pollutant of interest.
- Select the period of time you wish to cover, "Daily", "Weekly", "Monthly", or "Periodic" (for a period of time that is not one of the above).

- Select (by typing in the date or by clicking on the  buttons that let you choose the date) into the next tabs the date & time for start and end.
- In the Time Base tab dropdown menu, select 1 hour or other averaging time as desired.
- Select from the "Type" tab dropdown menu the type of data you wish to display, i.e., Avg (Average), Min (minimum), Max (maximum), Running Min (Minimum Running), Running Max (Maximum Running), Running AVG (average running) or Running Forward.
- Check “Use Regression” box if you wish to show the regression line.
- Click on the 

button.

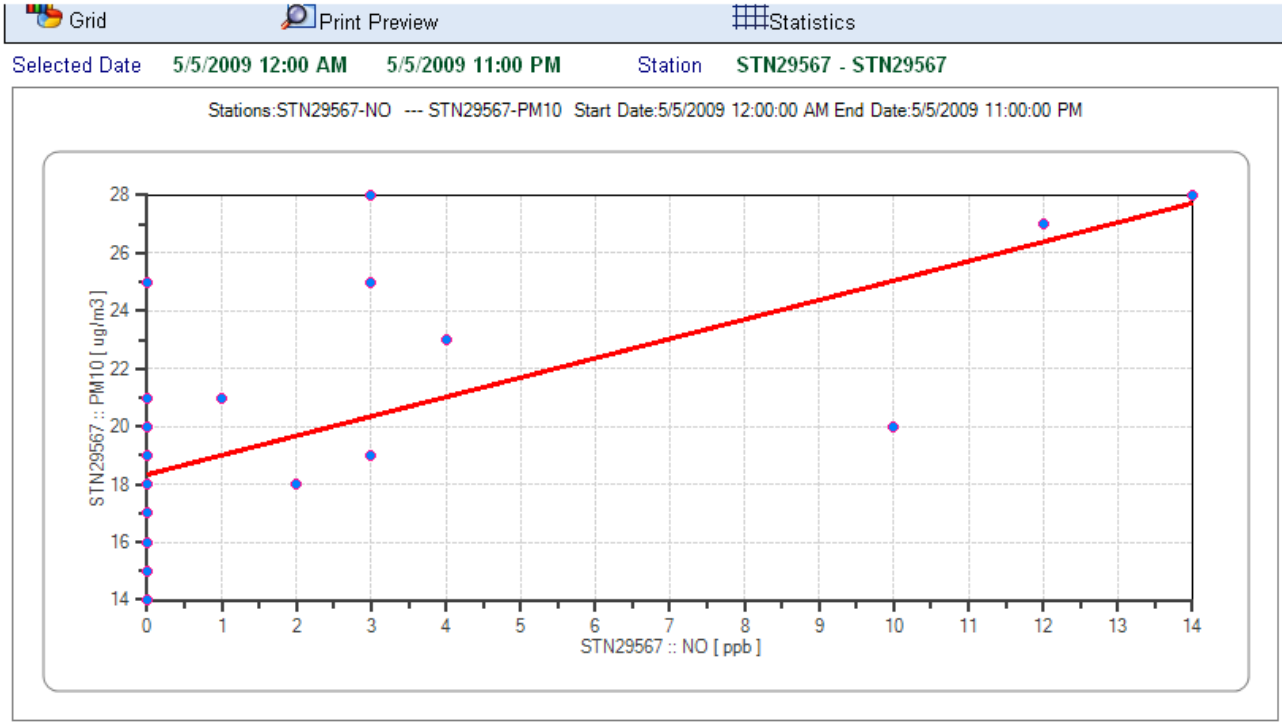
Below is the tabular version of an XY report



Date_Time	STN29567	STN29567
	PM10	NO
	ug/m3	ppb
5/5/2009 12:00 AM	21	0
5/5/2009 1:00 AM	25	0
5/5/2009 2:00 AM	19	0
5/5/2009 3:00 AM	20	0
5/5/2009 4:00 AM	15	0
5/5/2009 5:00 AM	18	2
5/5/2009 6:00 AM	27	12
5/5/2009 7:00 AM	28	14
5/5/2009 8:00 AM	20	10
5/5/2009 9:00 AM	23	4
5/5/2009 10:00 AM	19	3
5/5/2009 11:00 AM	25	3
5/5/2009 12:00 PM	28	3
5/5/2009 1:00 PM	21	1
5/5/2009 2:00 PM	18	0
5/5/2009 3:00 PM	18	0
5/5/2009 4:00 PM	16	0
5/5/2009 5:00 PM	16	0
5/5/2009 6:00 PM	17	0
5/5/2009 7:00 PM	14	0

Clicking on the “Statistics” button will give Max, Min, Avg, % Data, Std Deviation of the data sets.

Below is the graphic version of these data, including the regression line.



2Y analysis

A 2Y Analysis presents the values from two monitors with different data ranges plotted versus time. The monitors may come from different stations. Each data range is adjusted for visibility. The advantage of this analysis is the ability to see both sets of data in a visible scale and make a comparison between them. In a normal graph, if the results from two monitors, one with very high values and the other with very low values, are presented together, the variation in the lower data range cannot be seen.

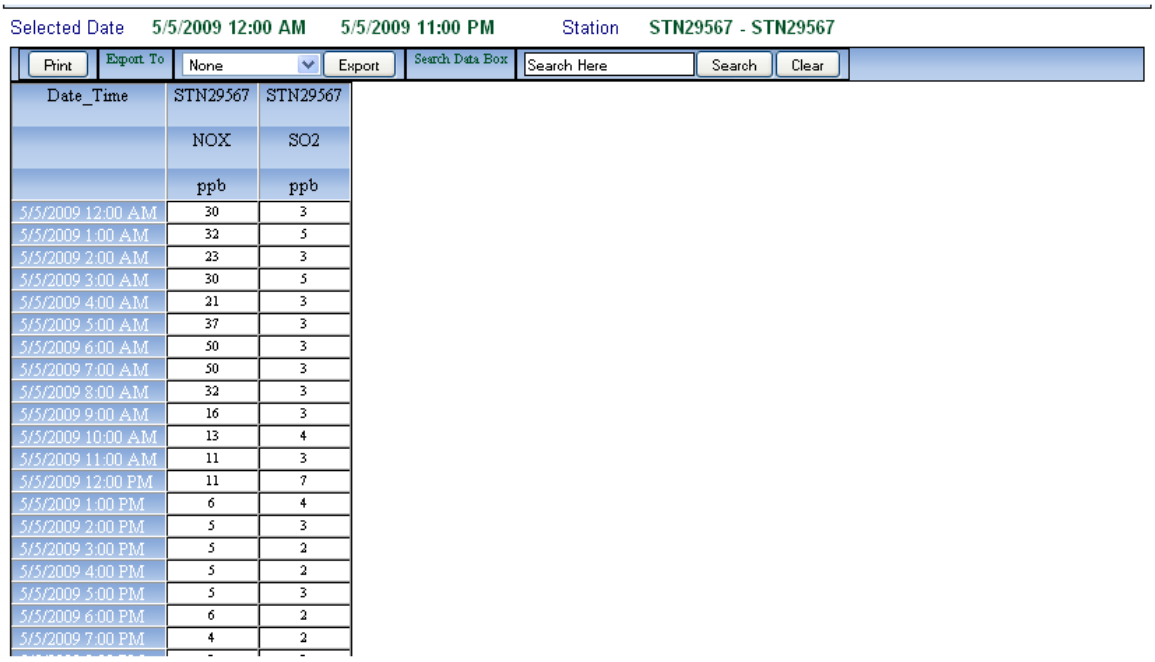
To produce a 2Y report:

Select "Grid" for a tabular presentation or "Graph" for a graphic presentation.

- In the first Station tab dropdown menu, select “All”.
- In the Station X tab dropdown menu, select the station number at which the first pollutant of interest is being measured (X axis of graph).
- In the Monitor X tab dropdown menu, select the first pollutant of interest.
- In the Station Y tab dropdown menu, select the station number at which the second pollutant of interest is being measured (Y axis of graph).
- In the Monitor Y tab dropdown menu, select the second pollutant of interest.
- Select the period of time you wish to cover, "Daily", "Weekly", "Monthly", or "Periodic" (for a period of time that is not one of the above).
- Select (by typing in the date or by clicking on the  buttons that let you choose the date) into the next tabs the date & time for start and end.
- In the Time Base tab dropdown menu, select 1 hour or other averaging time as desired.

- Select from the "Type" tab dropdown menu the type of data you wish to display, i.e., Avg (Average), Min (minimum), Max (maximum), Running Min (Minimum Running), Running Max (Maximum Running), Running AVG (average running) or Running Forward.
- Check “Use Regression” box if you wish to show the regression line.
- Click on the GenerateReport button.

Below is an example of a tabular 2Y report.

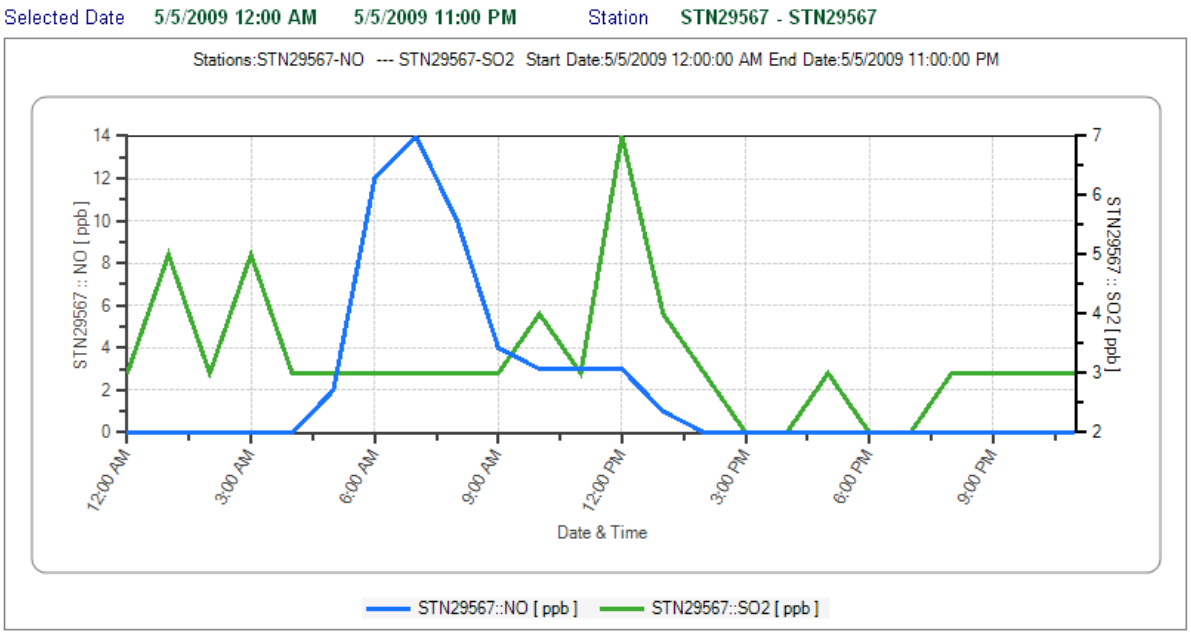


Selected Date 5/5/2009 12:00 AM 5/5/2009 11:00 PM Station STN29567 - STN29567

Print | Export To: None | Export | Search Data Box: Search Here | Search | Clear

Date_Time	STN29567 NOX ppb	STN29567 SO2 ppb
5/5/2009 12:00 AM	30	3
5/5/2009 1:00 AM	32	5
5/5/2009 2:00 AM	23	3
5/5/2009 3:00 AM	30	5
5/5/2009 4:00 AM	21	3
5/5/2009 5:00 AM	37	3
5/5/2009 6:00 AM	50	3
5/5/2009 7:00 AM	50	3
5/5/2009 8:00 AM	32	3
5/5/2009 9:00 AM	16	3
5/5/2009 10:00 AM	13	4
5/5/2009 11:00 AM	11	3
5/5/2009 12:00 PM	11	7
5/5/2009 1:00 PM	6	4
5/5/2009 2:00 PM	5	3
5/5/2009 3:00 PM	5	2
5/5/2009 4:00 PM	5	2
5/5/2009 5:00 PM	5	3
5/5/2009 6:00 PM	6	2
5/5/2009 7:00 PM	4	2

Below is an example of a graphical 2Y report.

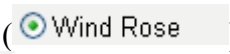


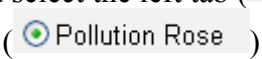
Wind Rose and Pollution Rose Analysis

Wind Rose analysis displays the distribution of the wind speed in relation to direction. Standard format is to show the direction that the wind blows from.

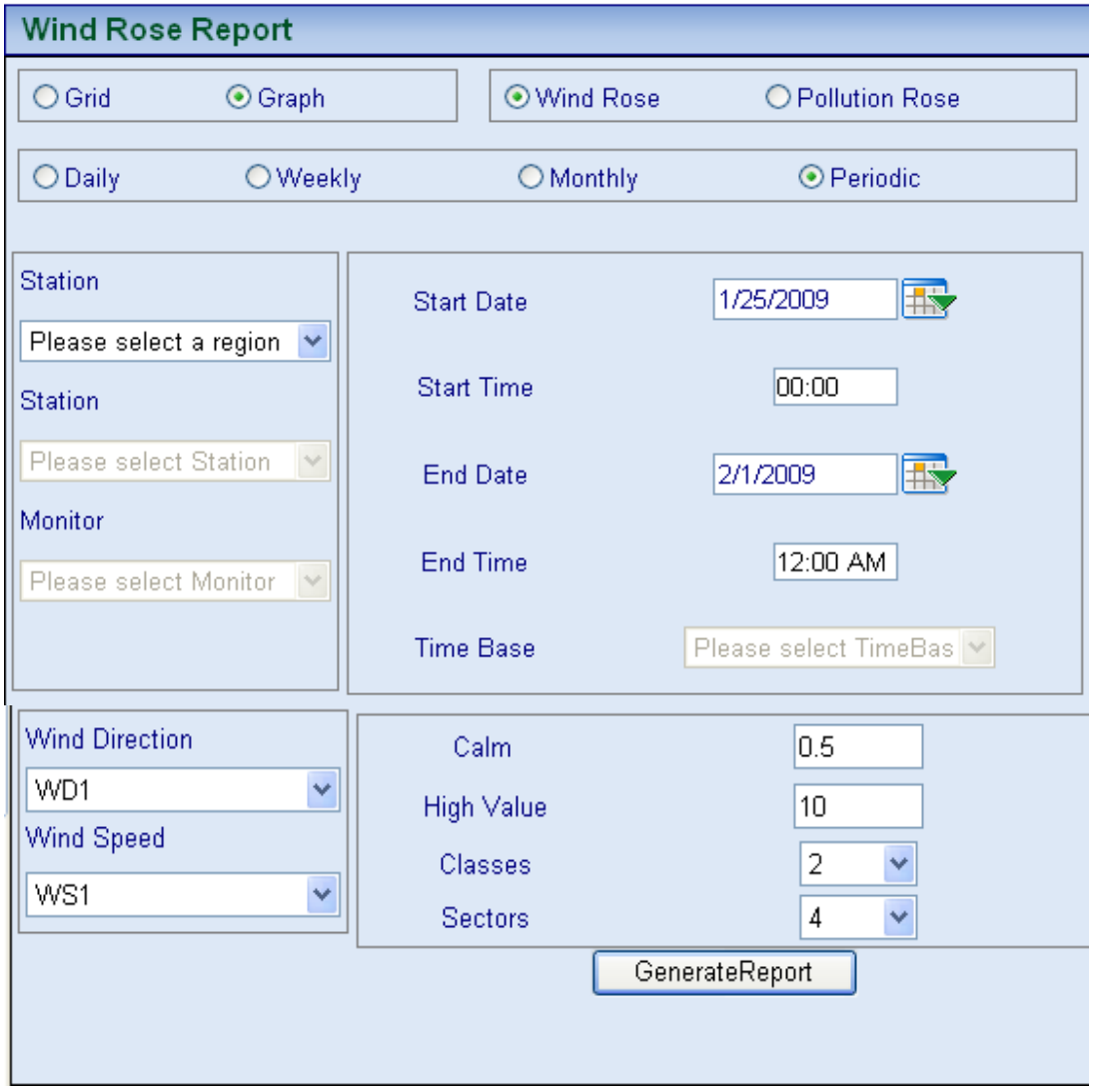
Pollution Rose analysis displays the pollution concentration with respect to wind direction. Standard format is to show the direction that the wind blows from, thus higher values point to pollution sources.

Click on the **Real-Time Data -> Windrose and Pollution Rose Analyses** sub-menu link tab and the request window for *Wind Rose* **and** *Pollution Rose* will appear, in a common window that presents the next choice 

If you select the left tab (

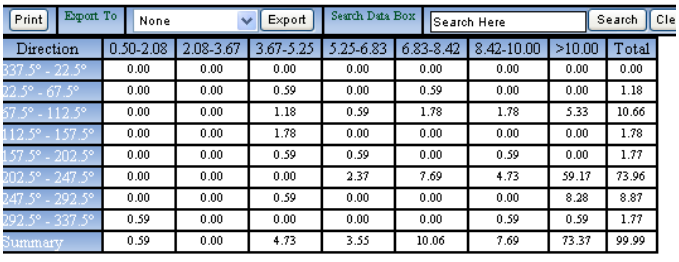
) the report will lead to a Wind Rose analysis, if you select the right tab (

) the report will lead to a Pollution Rose.
This is a request screen for Wind Rose analysis:



To produce a Wind Rose Report follow these steps:

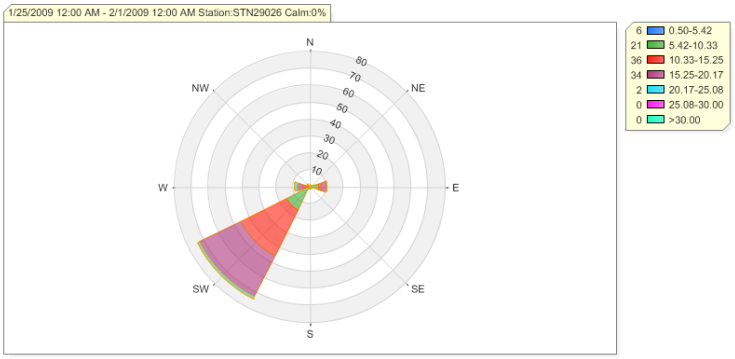
- . Select "Grid" for a tabular presentation



Print	Export To	None	Export	Search Data Box	Search Here	Search	Cle

Direction	0.50-2.08	2.08-3.67	3.67-5.25	5.25-6.83	6.83-8.42	8.42-10.00	>10.00	Total
337.5° - 22.5°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.5° - 67.5°	0.00	0.00	0.59	0.00	0.59	0.00	0.00	1.18
67.5° - 112.5°	0.00	0.00	1.18	0.59	1.78	1.78	5.33	10.66
112.5° - 157.5°	0.00	0.00	1.78	0.00	0.00	0.00	0.00	1.78
157.5° - 202.5°	0.00	0.00	0.59	0.59	0.00	0.59	0.00	1.77
202.5° - 247.5°	0.00	0.00	0.00	2.37	7.69	4.73	59.17	73.96
247.5° - 292.5°	0.00	0.00	0.59	0.00	0.00	0.00	8.28	8.87
292.5° - 337.5°	0.59	0.00	0.00	0.00	0.00	0.59	0.59	1.77
Summary	0.59	0.00	4.73	3.55	10.06	7.69	73.37	99.99

or "Graph" for graphic presentation.



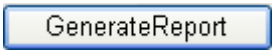
- The left column is for selecting the station and monitor:

You can select the station by selecting 'ALL' from the Region box and then the station number from the station box drop down list.

- The "Monitor" box is meant for the "Pollution Rose" analysis, so ignore, leave it on the default monitor. .
- From "Wind Direction" box select the monitor that represents the wind direction, WD1, or, if higher met tower, WD2 or WD3. (Monitor heights are 10, 30 and 100 metres respectively).
- From "Wind Speed" box select the monitor that represents the wind speed, WS1, or, if higher met tower, WS2 or WS3.

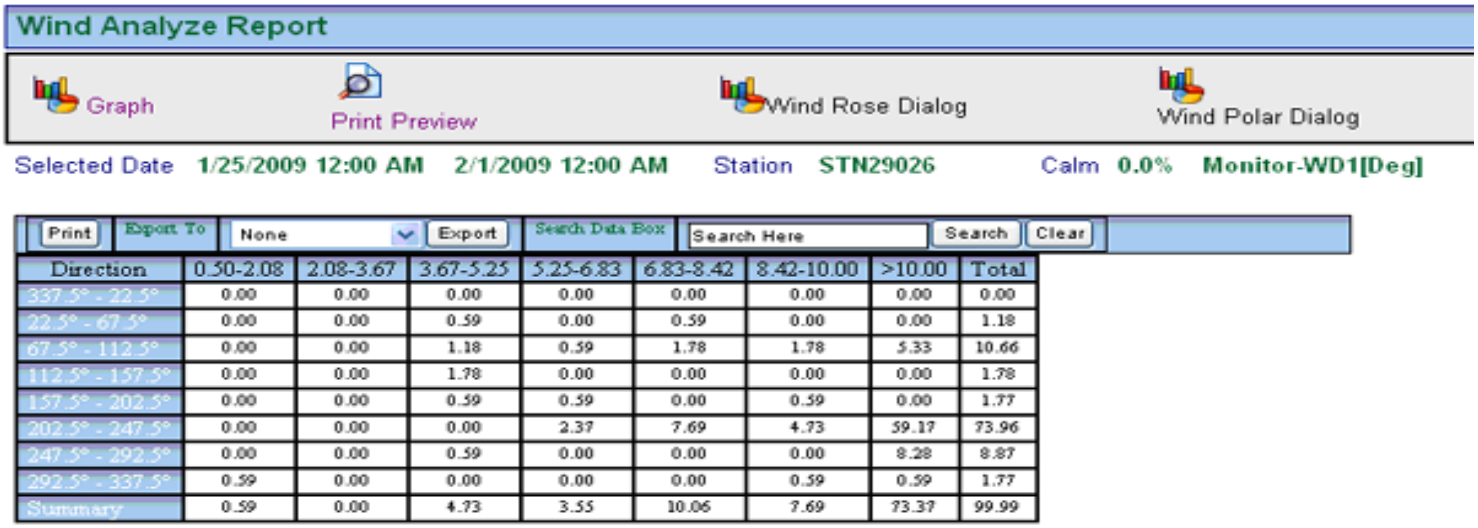
- Select the period of time you wish to cover, "Daily", "Weekly", "Monthly", or "Periodic" (for a period of time that is not one of the above).
- Select (by typing in the date or by clicking on the  buttons that let you choose the date) into the next tabs the date & time for start and end.

- Select the 1 hour time base from "Time Base" box.

- Enter the *Parameters* below related to the **wind speed** monitor:
  - o "Calm" - Low wind speed threshold.
  - o "High Value" - Lower bound for the highest wind speed class, normally 30.
  - o "Classes" - Number of wind speed Classes, normally 7.
  - o "Sectors" - Number of wind directions or Sectors, normally 8 for tabular, 30 for graphic.
- Click on the 

button.

The figure below is an example of the report that will appear on the screen for “Grid”.



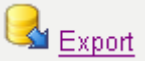
Direction	0.50-2.08	2.08-3.67	3.67-5.25	5.25-6.83	6.83-8.42	8.42-10.00	>10.00	Total
337.5° - 22.5°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.5° - 67.5°	0.00	0.00	0.59	0.00	0.59	0.00	0.00	1.18
67.5° - 112.5°	0.00	0.00	1.18	0.59	1.78	1.78	5.33	10.66
112.5° - 157.5°	0.00	0.00	1.78	0.00	0.00	0.00	0.00	1.78
157.5° - 202.5°	0.00	0.00	0.59	0.59	0.00	0.59	0.00	1.77
202.5° - 247.5°	0.00	0.00	0.00	2.37	7.69	4.73	59.17	73.96
247.5° - 292.5°	0.00	0.00	0.59	0.00	0.00	0.00	8.28	8.87
292.5° - 337.5°	0.59	0.00	0.00	0.00	0.00	0.59	0.59	1.77
Summary	0.59	0.00	4.73	3.55	10.06	7.69	73.37	99.99

Wind Rose Tabular Report

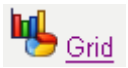
Note there are 4 tabs above the tabular report:

- The 

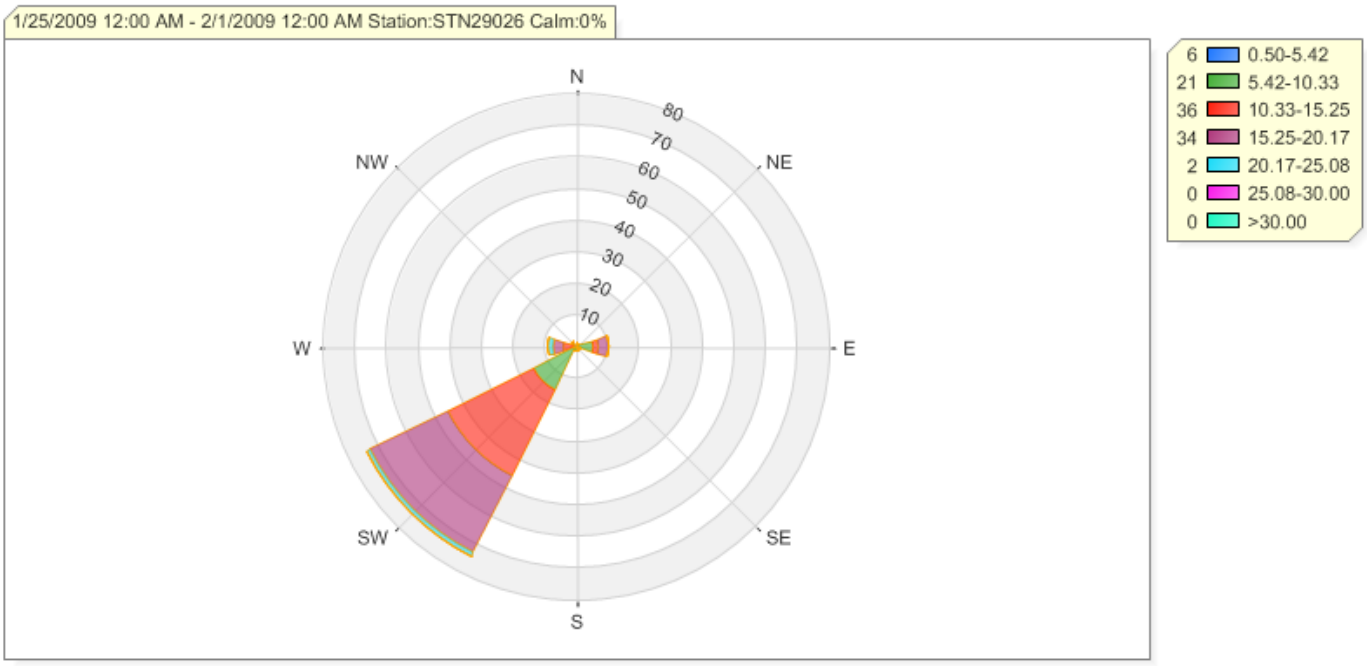
that will open the wind polar dialogue window and the 

that will open again the earlier dialogue.
- The 

tab which will export the data.
- The 

tab (that will become the 

tab when you will click on the Graph tab) to convert to the graphic, see figure below:

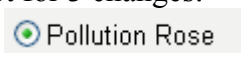


Wind Rose Graphic Report

To go directly to this graphic Wind Rose display, simply click on " Graph" at the beginning.

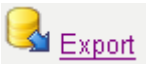
Pollution Rose

The request screen for Pollution Rose analysis is identical to the request screen for Wind Rose, as was shown above except for 3 changes:

- Now 

is selected.
- In this analysis the "Monitor" box on the left side needs to be selected: select the monitor that will represent the pollutant from the drop down list.
- Enter the *Parameters* below related to the **selected monitor** from "Monitor" tab:
    - o "Calm" - Low wind speed threshold.
    - o "High Value" - Lower bound for the highest wind speed class, normally 30.
    - o "Classes" - Number of wind speed Classes, normally 7.
    - o "Sectors" - Number of wind direction Sectors, normally 8 for tabular, 30 for graphic.

Below are examples of a Pollution Rose analysis for NOx, both tabular and graphic. This report shows the same 4 tabs as previously 



and 

.

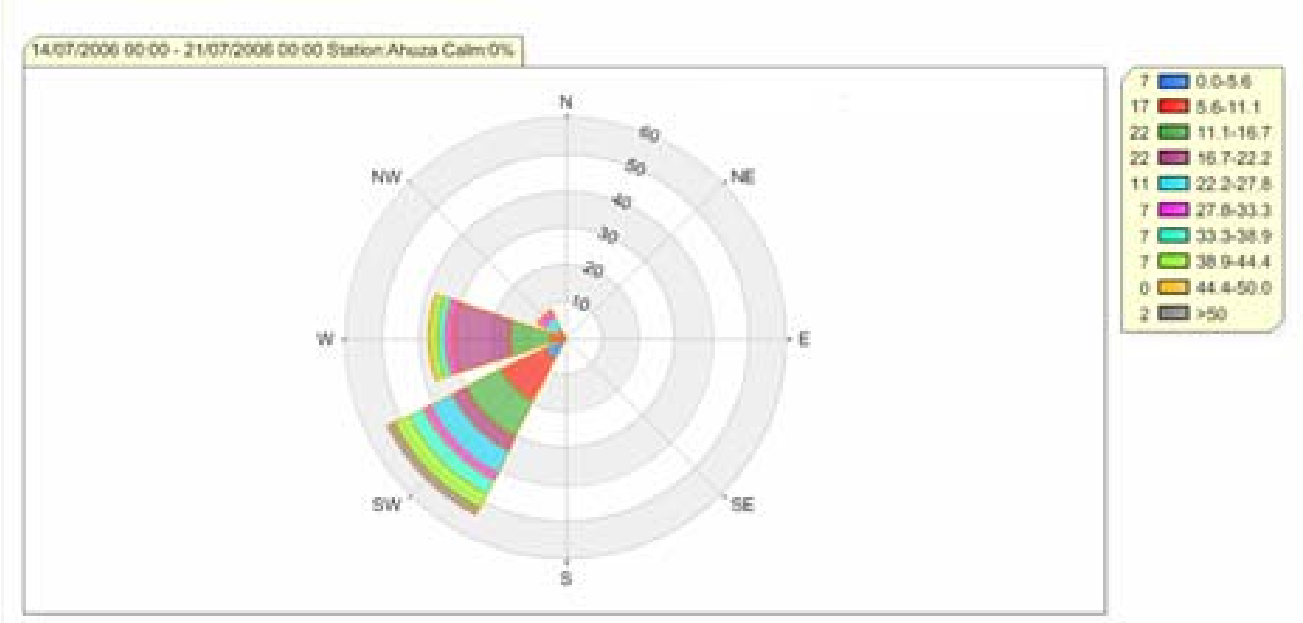
Wind Rose Report

Graph Export Wind Rose Dialog Wind Polar Dialog

Selected Date 14/07/2006 00:00 21/07/2006 00:00 Station Ahuza Calm 0% Wind Analyze

Direction	0.0-5.6	5.6-11.1	11.1-16.7	16.7-22.2	22.2-27.8	27.8-33.3	33.3-38.9	38.9-44.4
337.5° - 22.5°	0	0	0	0	0	0	0	0
22.5° - 67.5°	0	0	0	0	0	0	0	0
67.5° - 112.5°	0	0	0	0	0	0	0	0
112.5° - 157.5°	0	0	0	0	0	0	0	0
157.5° - 202.5°	0	0	0	0	0	0	0	0
202.5° - 247.5°	6.5	13.0	10.9	4.3	6.5	2.2	4.3	4.3
247.5° - 292.5°	0	4.3	10.9	15.2	0	2.2	2.2	2.2
292.5° - 337.5°	0	0	0	2.2	4.3	2.2	0	0
Summary	6.5	17.3	21.8	21.7	10.8	6.6	6.5	6.5

Pollution Rose Tabular Report



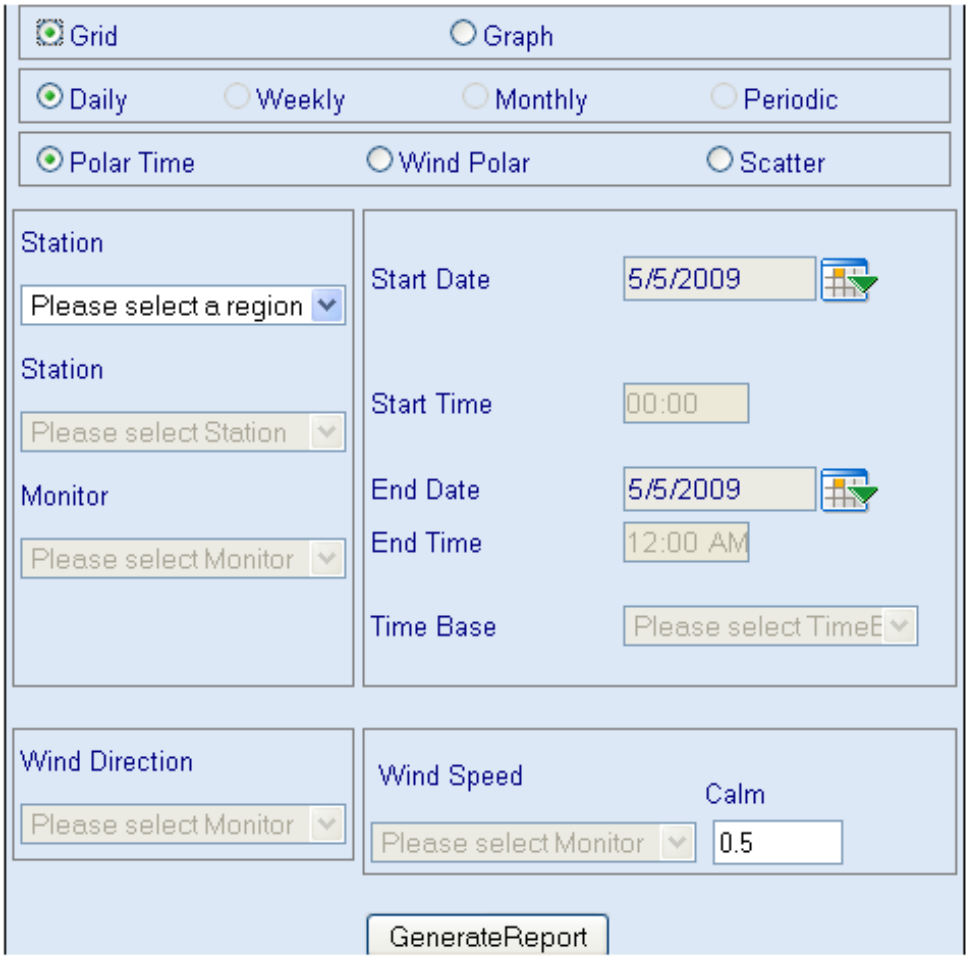
Pollution Rose Graphic Report

Polar Analyses

Polar analyses are similar to wind and pollution roses in that they display data in a circular, 360^{o} manner. The "Polar" tab covers three different analyses:

- Polar Time, which shows wind speed vs. wind direction.
- Wind Polar, which shows pollutant averages vs. wind direction ranges.
- Scatter, which shows individual pollutant values vs. wind direction.

Click on the **Real-Time Data -> Polar Time, Wind Polar and Scatter Analyses** sub-menu link tab and the request window for *Polar Time* **and** *Wind Polar* **and** *Scatter* will appear.

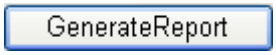


You can select the left tab (Polar Time), the middle tab (Wind Polar) or the right tab (Scatter) depending on which report you wish to display.

To produce a "Polar Time" report:

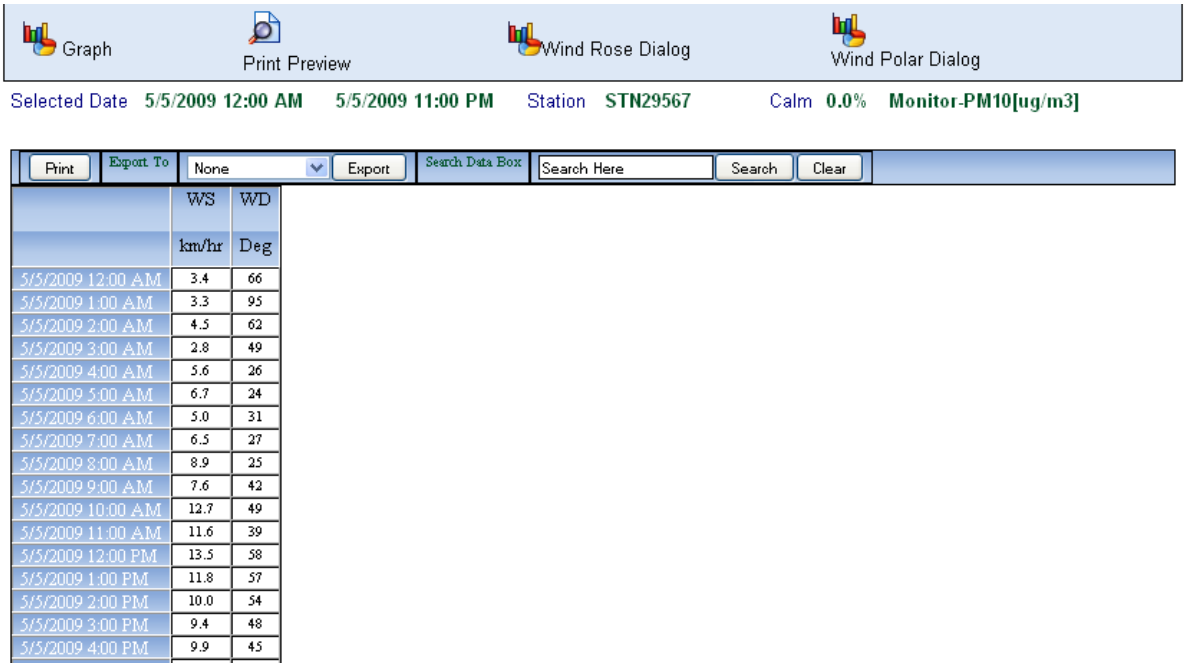
Select "Grid" for a tabular presentation or "Graph" for a graphic presentation.

- In the first Station tab dropdown menu, select “All”.
- In the second Station tab dropdown menu, select the station number.
- In the Monitor tab dropdown menu, not necessary to select a pollutant.
- Select the type of time period you wish to cover. Polar time will only allow daily.
- Select (by typing in the date or by clicking on the  buttons that let you choose the date) into the next tabs the date & time for start and end.
- In the Time Base tab dropdown menu, select 1 hour.
- In the Wind Direction tab dropdown menu, select WD.
- In the Wind Speed tab dropdown menu, select WD.
- In the Calm box, enter the low wind speed threshold.

Click on the 

button.

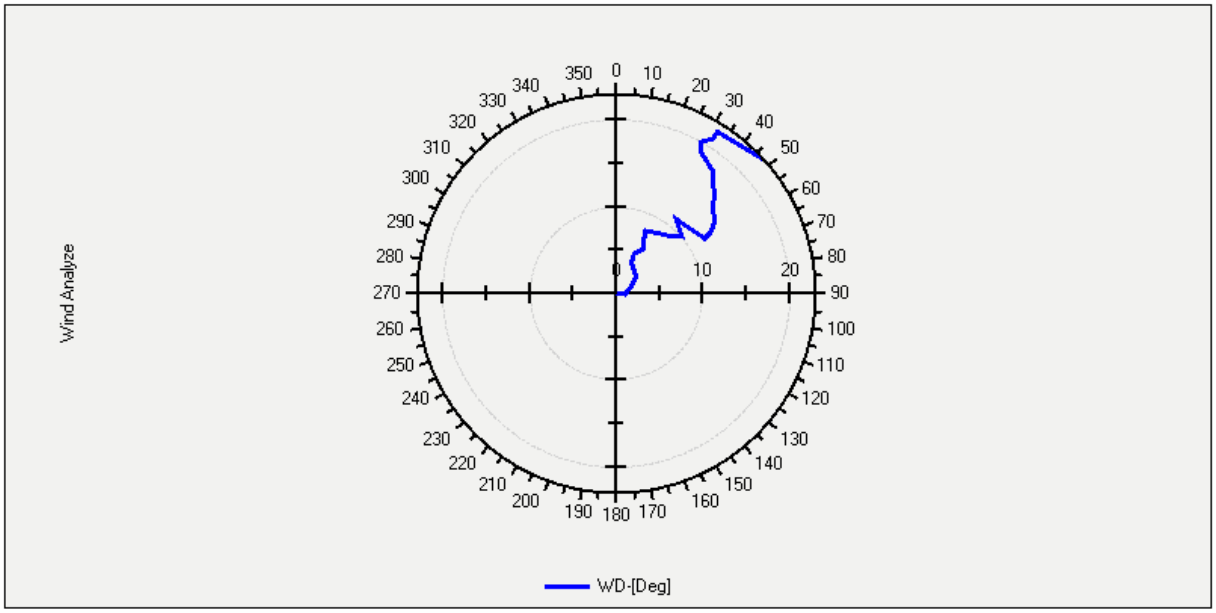
Below is an example of the tabular, polar time report



	WS	WD
	km/hr	Deg
5/5/2009 12:00 AM	3.4	66
5/5/2009 1:00 AM	3.3	95
5/5/2009 2:00 AM	4.5	62
5/5/2009 3:00 AM	2.8	49
5/5/2009 4:00 AM	5.6	26
5/5/2009 5:00 AM	6.7	24
5/5/2009 6:00 AM	5.0	31
5/5/2009 7:00 AM	6.5	27
5/5/2009 8:00 AM	8.9	25
5/5/2009 9:00 AM	7.6	42
5/5/2009 10:00 AM	12.7	49
5/5/2009 11:00 AM	11.6	39
5/5/2009 12:00 PM	13.5	58
5/5/2009 1:00 PM	11.8	57
5/5/2009 2:00 PM	10.0	54
5/5/2009 3:00 PM	9.4	48
5/5/2009 4:00 PM	9.9	45

This report has Export and Graph tabs at the top which will either export the data or display it in graphical format. Below are the data in graphical format.

Selected Date 5/5/2009 12:00 AM 5/5/2009 11:00 PM Station STN29567 Calm 0.0%



Wind Polar

The request screen for *Wind Polar* analysis, pollutant averages vs. wind direction, is identical to the request screen for Polar Time, except for 3 changes:

- Wind Polar is selected.
- You can select the type of time period you wish to cover, "Daily", "Weekly", "Monthly", or "Periodic" (for a period of time that is not one of the above).
- You must select the pollutant of interest from the "Monitor" tab dropdown menu.

Below is an example of a Wind Polar tabular analysis for PM10.

Wind Analyze Report

Graph | Print Preview | Wind Rose Dialog | Wind Polar Dialog

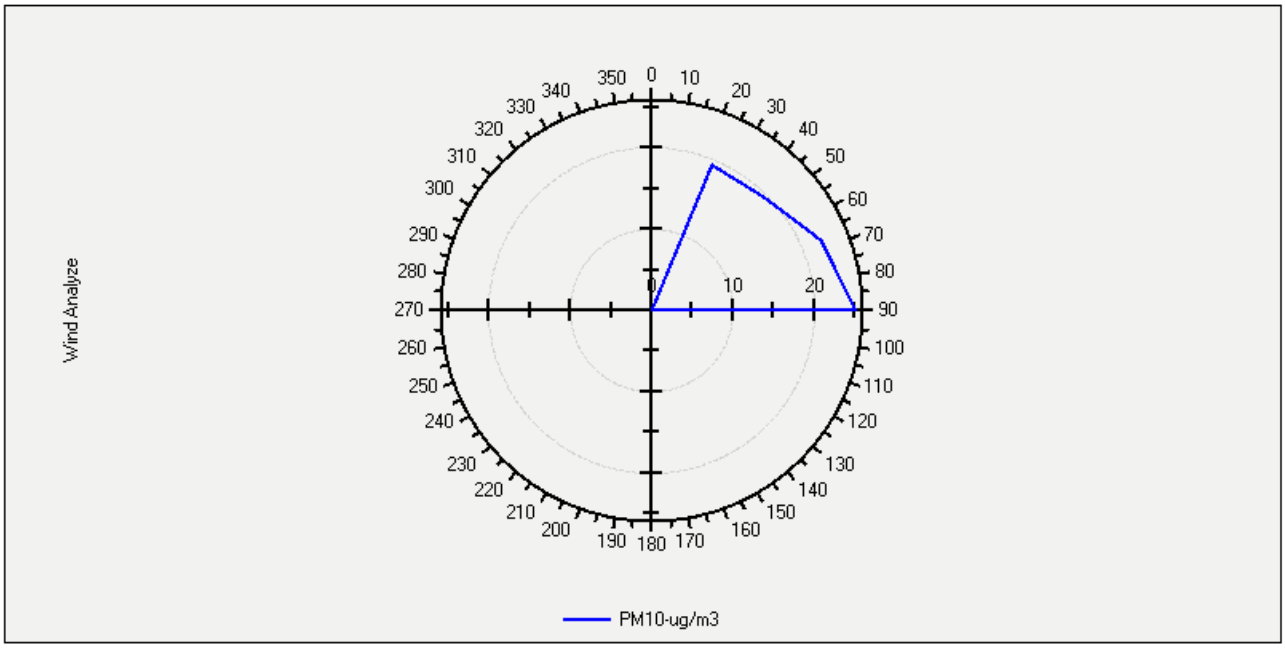
Selected Date 5/5/2009 12:00 AM 5/5/2009 11:00 PM Station STN29567 Calm 0.0% Monitor-PM10[ug/m3]

Print | Export To: None | Export | Search Data Box: Search Here | Search | Clear

	PM10 ug/m3
348.8 - 11.3	
11.3 - 33.8	19
33.8 - 56.3	20
56.3 - 78.8	23
78.8 - 101.3	25
101.3 - 123.8	
123.8 - 146.3	
146.3 - 168.8	
168.8 - 191.3	
191.3 - 213.8	
213.8 - 236.3	
236.3 - 258.8	
258.8 - 281.3	
281.3 - 303.8	
303.8 - 326.3	

The graphical analysis is shown below.

Selected Date 5/5/2009 12:00 AM 5/5/2009 11:00 PM Station STN29567 Calm 0.0% Wind Analyze-PM10[ug/m3]



Scatter

The request screen for *Scatter* analysis is identical to the request screen for Polar Time, except for 3 changes:

- ◉ Scatter is selected.
- You can select the type of time period you wish to cover, "Daily", "Weekly", "Monthly", or "Periodic" (for a period of time that is not one of the above).
- You must select the pollutant of interest from the “Monitor” tab dropdown menu.

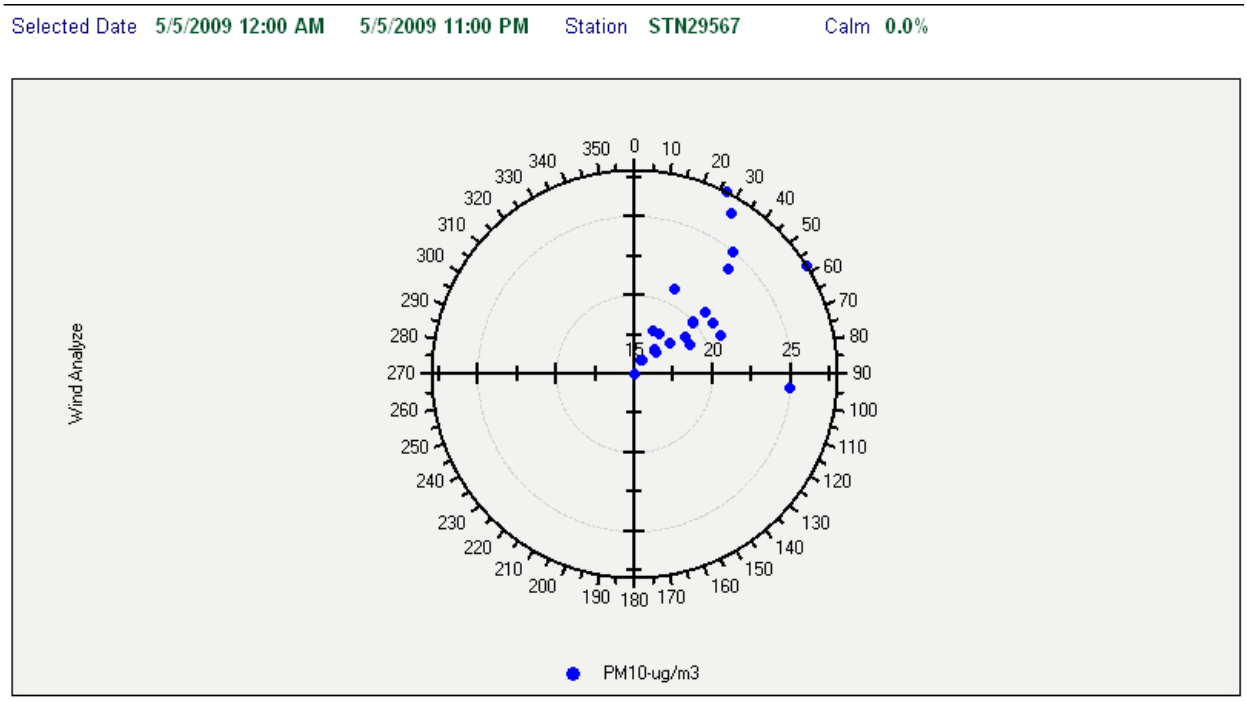
Below is an example of a Scatter tabular analysis for PM10.

Selected Date 5/5/2009 12:00 AM 5/5/2009 11:00 PM Station STN29567 Calm 0.0% Monitor-PM10[ug/m3]

Print | Export To | None | Export | Search Data Box | Search Here | Search | Clear

	WS	WD	PM10
	km/hr	Deg	ug/m3
5/5/2009 12:00 AM	3.4	66	21
5/5/2009 1:00 AM	3.3	95	25
5/5/2009 2:00 AM	4.5	62	19
5/5/2009 3:00 AM	2.8	49	21
5/5/2009 4:00 AM	5.6	26	16
5/5/2009 5:00 AM	6.7	24	18
5/5/2009 6:00 AM	5.0	31	27
5/5/2009 7:00 AM	6.5	27	28
5/5/2009 8:00 AM	8.9	25	21
5/5/2009 9:00 AM	7.6	42	24
5/5/2009 10:00 AM	12.7	49	20
5/5/2009 11:00 AM	11.6	39	25
5/5/2009 12:00 PM	13.5	58	28
5/5/2009 1:00 PM	11.8	57	21
5/5/2009 2:00 PM	10.0	54	19
5/5/2009 3:00 PM	9.4	48	18
5/5/2009 4:00 PM	9.9	45	17
5/5/2009 5:00 PM	9.0	41	17
5/5/2009 6:00 PM	10.0	38	17
5/5/2009 7:00 PM	10.8	31	15
5/5/2009 8:00 PM	9.1	29	16

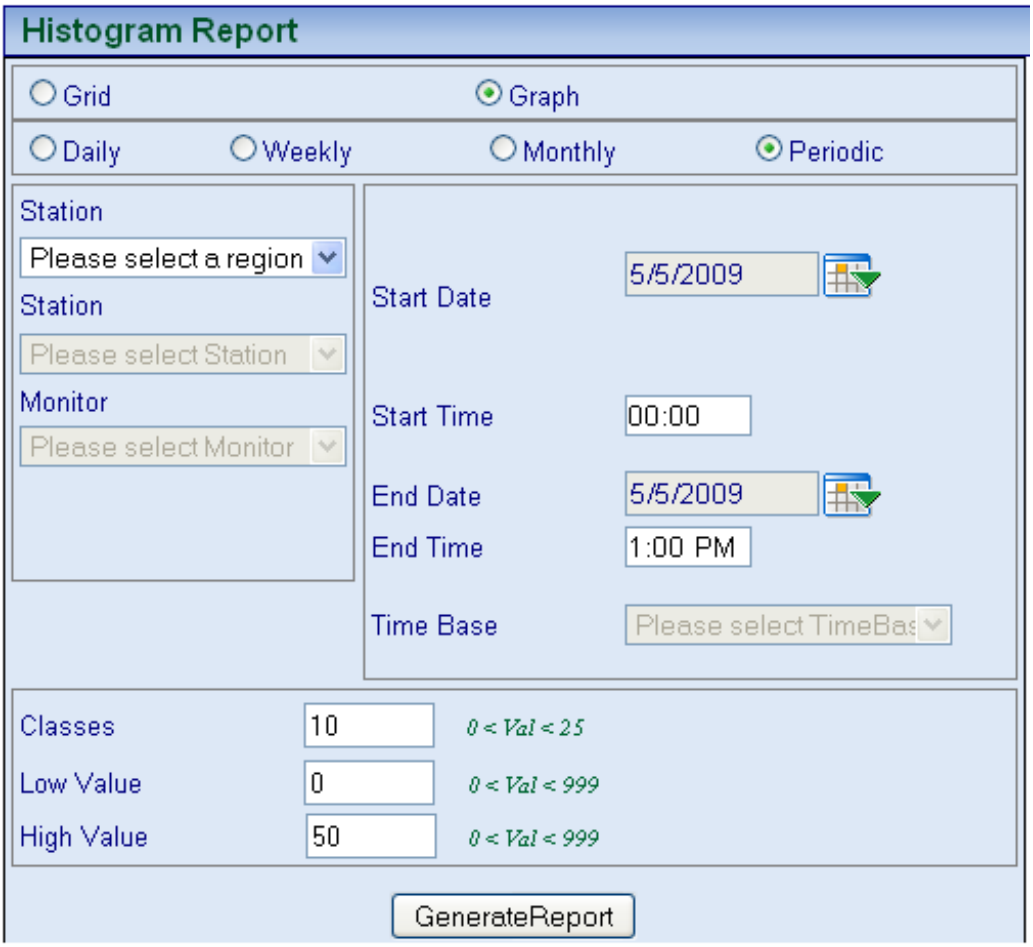
Below is the graphical form of the same report.



Histogram Analysis

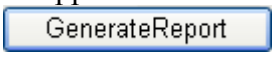
A histogram depicts the frequency of occurrence for various ranges of data. Each vertical bar in the histogram represents a range interval. The height represents the corresponding frequency of occurrence for values in that range. When configuring this analysis bear in mind that the low end class represents the percent of the values less than the specified lowest class value. The high-end class contains the values that are greater than the specified highest-class value.

Click on the **Real-Time Data -> Histogram Analyses** sub-menu link and the request frame of 'Histogram' analysis will appear on the screen as shown.



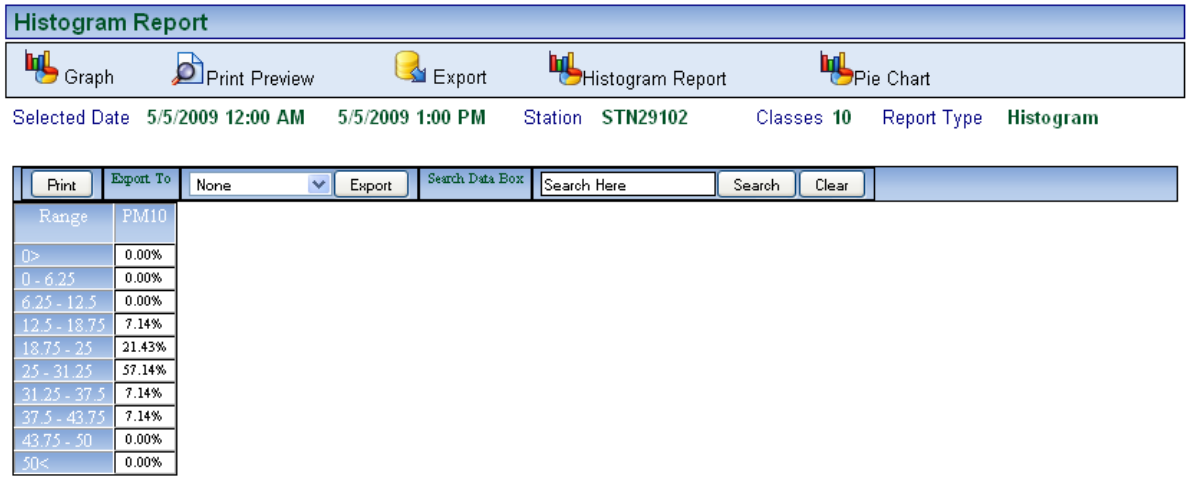
To produce a Histogram report:

Select "Grid" for a tabular presentation or "Graph" for a graphic presentation.

- In the first station tab dropdown menu, select “All”.
- In the second station tab dropdown menu, select the station number.
- In the monitor tab dropdown menu, select the pollutant.
- Select the period of time you wish to cover, "Daily", "Weekly", "Monthly", or "Periodic" (for a period of time that is not one of the above).
- Select (by typing in the date or by clicking on the  buttons that let you choose the date) into the next tabs the date & time for start and end.
- Select in the "Classes" tab the number of classes that the data will be divided into, for example, choosing 10 classes will divide the results into 10 groups.
- Enter into the "Low Value" and the "High Value" tabs the low and high range values respectively. This will be the upper bound of the first range and the lower bound of the last range.
- Click on the 

button.

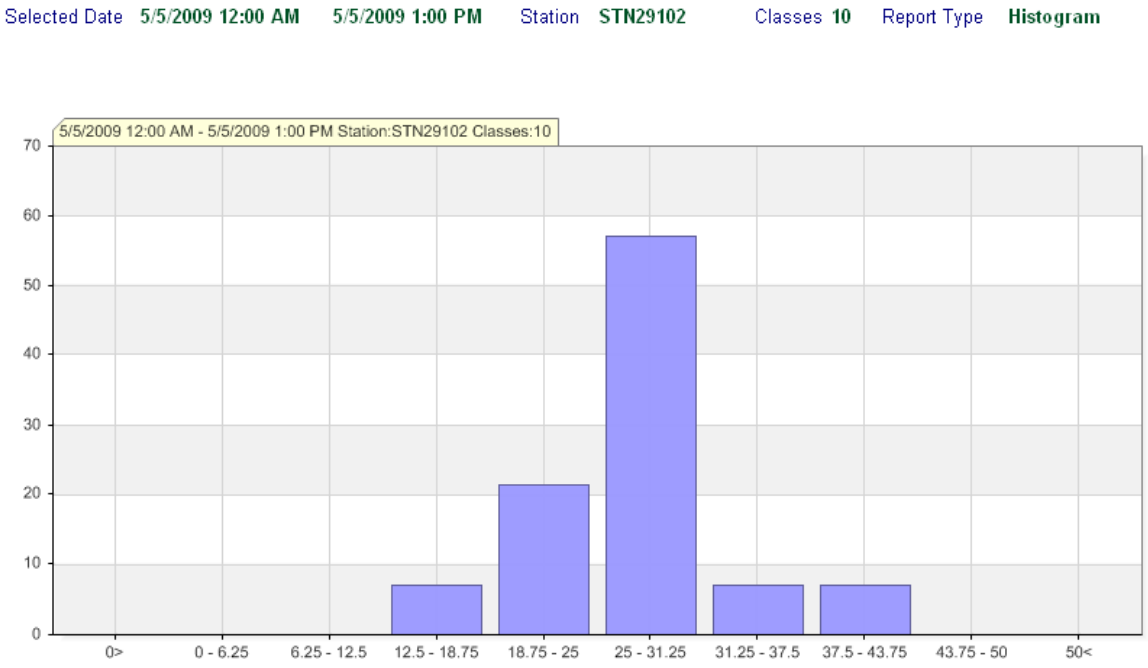
Below is the histogram tabular analysis.



Range	PM10
0>	0.00%
0 - 6.25	0.00%
6.25 - 12.5	0.00%
12.5 - 18.75	7.14%
18.75 - 25	21.43%
25 - 31.25	57.14%
31.25 - 37.5	7.14%
37.5 - 43.75	7.14%
43.75 - 50	0.00%
50<	0.00%

To obtain the graphic analysis click on the 

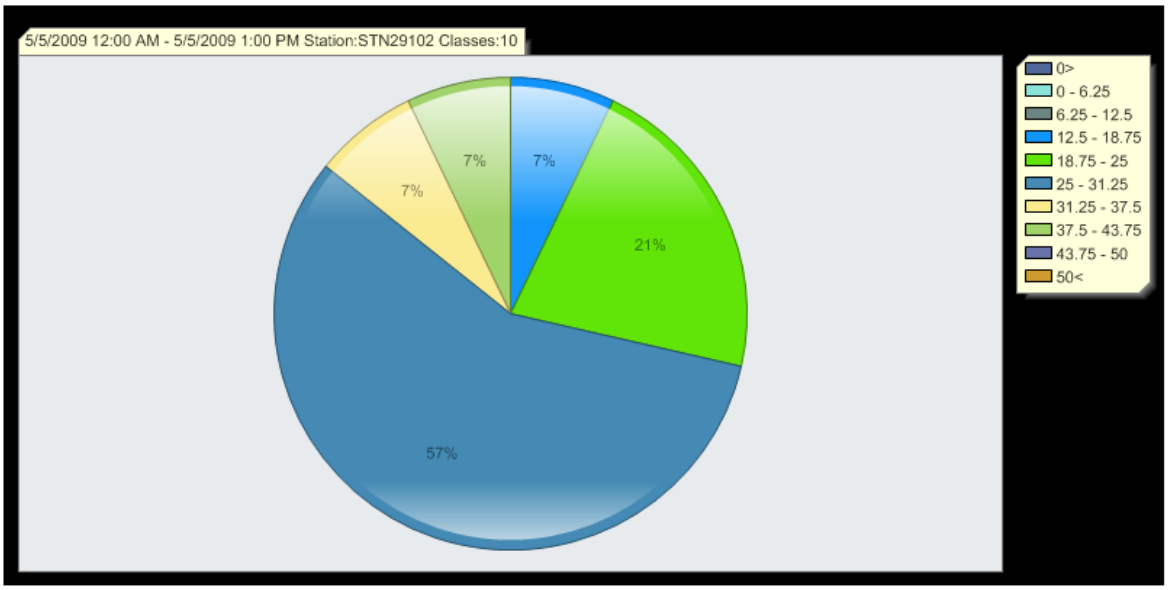
tab, or click on “graph” button on the first screen.



To obtain a pie chart display of the data, click on the 

tab:

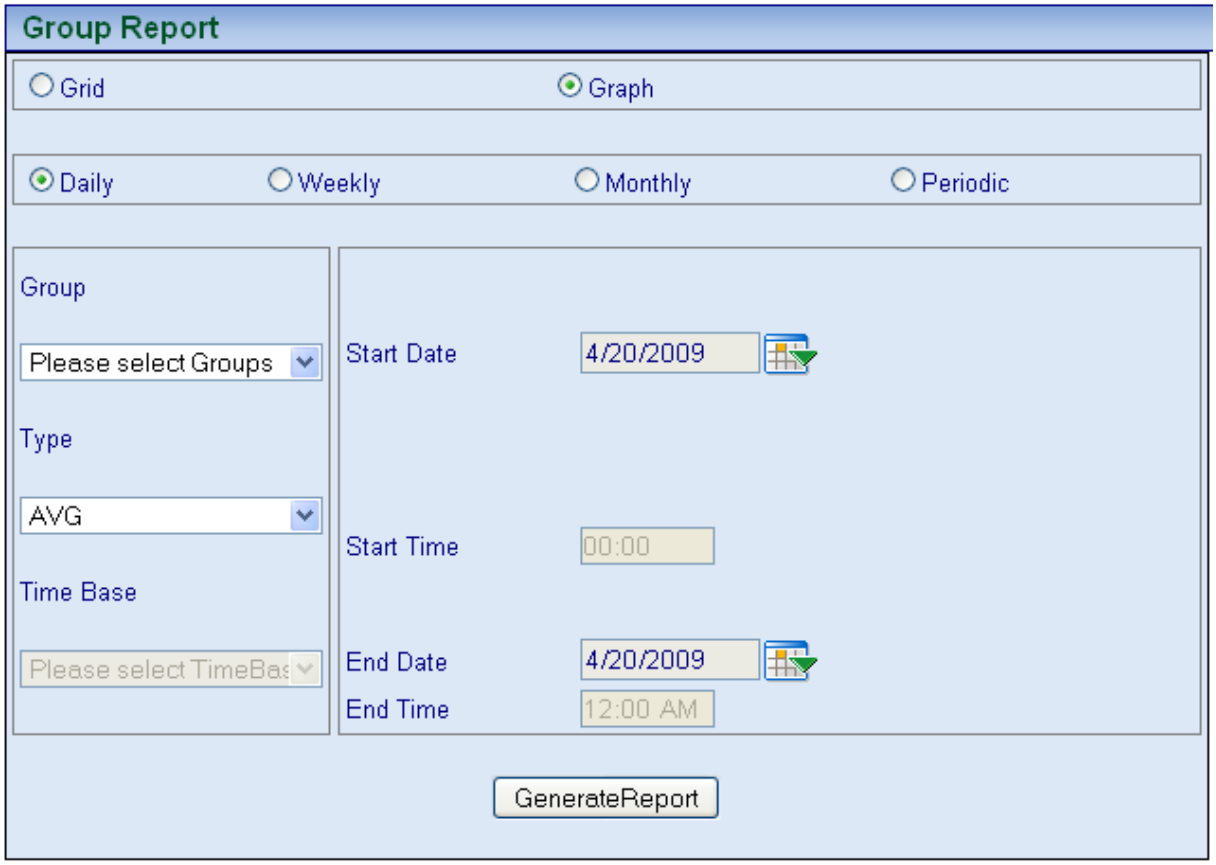
Selected Date 5/5/2009 12:00 AM 5/5/2009 1:00 PM Station STN29102 Classes 10 Report Type Histogram



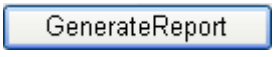
Group Report

The Group analysis displays pollution data vs. time from a defined group of monitors. These monitors may be from one or more stations.

Click on the Group tab and the request frame for 'Group' analysis will appear as shown:



Select "Grid" for a tabular presentation or "Graph" for a graphic presentation.

- Select the period of time you wish to cover, "Daily", "Weekly", "Monthly", or "Periodic" (for a period of time that is not one of the above).
- Select (by typing in the date or by clicking on the  buttons that let you choose the date) into the next tabs the date & time for start and end.
- Select in the "Group" combo box the desired group, e.g., HAMN PM10.
- Select the type of report from the "Type" combo box, normally AVG for average.
- Select the 1 hour time base from "Time Base" box.
- Click on the  button.

Below are the tabular and graphic forms of the group report.

Group Report

Graph | Print Preview | Group Dialog

Selected Date 5/5/2009 12:00 AM 5/5/2009 1:00 PM Group HAMN PM10 Time Base 60 Report Type Group

Print | Export To: None | Export | Search Data Box: Search Here | Search | Clear

Date_Time	STN29565 PM10 ug/m3	STN29567 PM10 ug/m3	STN29102 PM10 ug/m3
5/5/2009 12:00 AM	18	21	30
5/5/2009 1:00 AM	22	25	28
5/5/2009 2:00 AM	23	19	32
5/5/2009 3:00 AM	24	21	28
5/5/2009 4:00 AM	25	16	31
5/5/2009 5:00 AM	42	18	19
5/5/2009 6:00 AM	35	27	18
5/5/2009 7:00 AM	44	28	25
5/5/2009 8:00 AM	36	21	39
5/5/2009 9:00 AM	34	24	31
5/5/2009 10:00 AM	34	20	27
5/5/2009 11:00 AM	20	25	31
5/5/2009 12:00 PM	24	28	21
5/5/2009 1:00 PM	20	21	19

Selected Date 5/5/2009 12:00 AM 5/5/2009 1:00 PM Group PM10 Time Base 60 Report Type Group