



SWAN REAL TIME NETWORK PVT. LTD.

SEW SOFTWARE CONFIGURATION & USER MANUAL





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The installed SEW V2.2 software will be in this folder “C:\Program Files (x86)\ SEW2.2\ SwanEnviroWatchware”. Open the ConfigSettings.config file from this folder, this will have the database configurations for the station/central database that is installed using SEW – Installer. Apply the settings for the database server and SEW database in the ConfigSettings.config file, as shown in the following diagram.

A screenshot of Microsoft Visual Studio showing the 'ConnectionStrings' section of the 'ConfigSettings.config' file. The code is as follows:

```
<connectionStrings>
  <add name="SEWGraph" connectionString="Data Source=SRIN999 PC\SQLEXPRESS;Initial Catalog=SEV;Integrated Security=True;uid=sapwd4k24ki;"></add>
  <add name="SEWEstation" connectionString="metadata=res://*/SEW.csdl|res://*/SEW.ssdl|res://*/SEW.msl;provider=System.Data.SqlClient;provider connection string="Data Source=SRIN999 PC\SQLEXPRESS;Initial Catalog=SEV;user id=sa;password=k24ki;persist security info=True;multipleactiveresultsets=True;App=EntityFramework&quot;" providerName="System.Data.EntityClient" />
</connectionStrings>
```

Current Channel Dashboard:

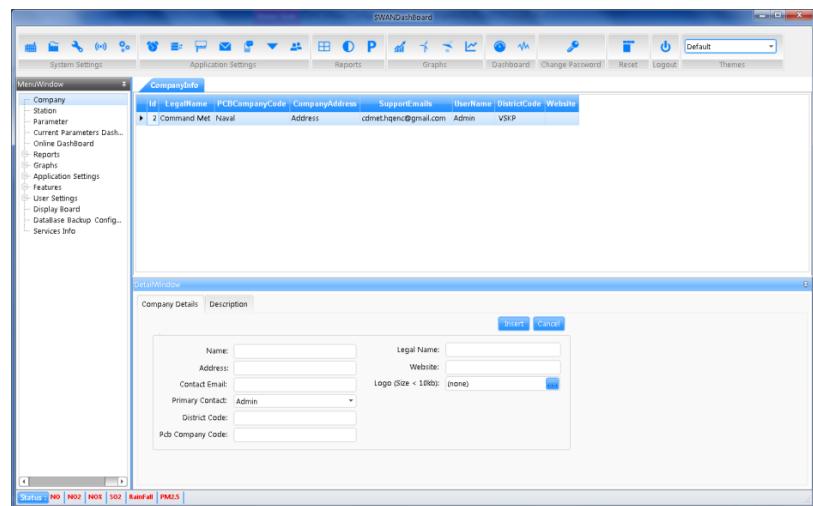
Now open the SEW V2.2 software from the installation folder or from the desktop shortcut, it brings up the login screen. Login to the application with the default credentials “Admin” and “swanrealtime” as the password. This brings up the Current Channel Dashboard screen, if the company, stations & parameters are configured and data is being logged then the current channel data will be displayed on this screen as shown in the following screen.



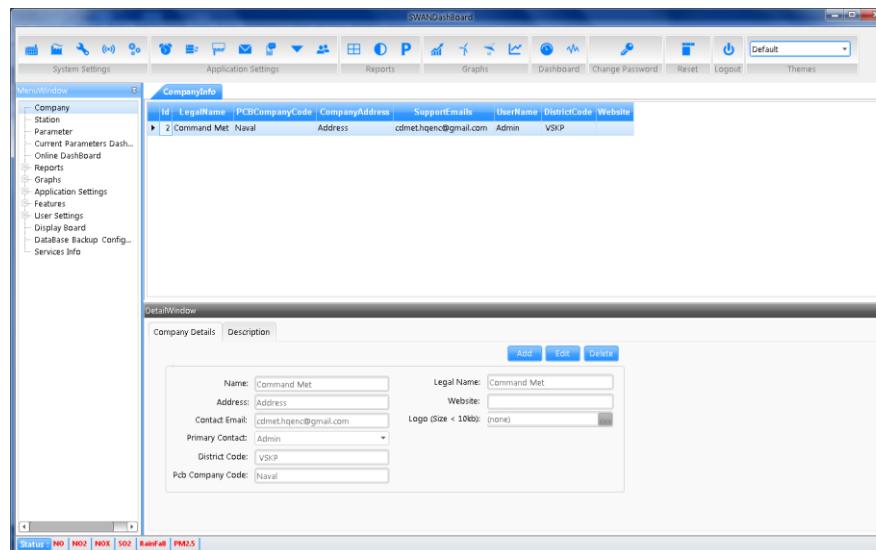
If they are not configured it displays the empty screen.

Company:

Starting with Company Configuration, click on the “**Company**” from left side panel treeview, it opens the companies list if there are any and if there are no companies in the list user could add a company using the following screen.



The upper portion of the “CompanyInfo” tab will list out the companies and lower portion will display the company information in



detail for the selected item from the list.



StationDetails:

The second node from the tree view is **StationDetails**, it opens the stations list if there are any and if there are no stations in the list user could add a station by clicking on “Add” button from the detail window.

A screenshot of the SWAN Dashboard application. The main window title is "SWAN Dashboard". The top menu bar includes "System Settings", "Application Settings", "Reports", "Graphs", "Dashboard", "Change Password", "Reset", "Logout", and "Themes". A toolbar below the menu contains various icons for file operations like Open, Save, Print, and Help. On the left, a sidebar titled "MainWindow" shows a tree view with nodes: Company, Station, Parameter, Current Parameters Dash..., Online Dashboard, Reports, Graphs, Application Settings, Features, User Settings, Display Board, Database Backup Config..., and Services Info. The central area has two windows: "StationInfo" (list view) and "DetailWindow" (detail view). The "StationInfo" window shows a table with columns: Id, CompanyName, PCBStationCode, StationName, StationPoint, StationIpAddress, Port, MonitoringType, StationStatus, GeneratePCBFile, and DigitalStack. One row is visible: Id=16, CompanyName=Command Met, PCBStationCode=Naval, StationName=DATA-Y JUNCTION, StationPoint=1, StationIpAddress=ip-address, Port=1, MonitoringType=air, StationStatus=, GeneratePCBFile=, DigitalStack=. The "DetailWindow" window is titled "Station Details" and contains fields for Company Name (Company Name: Command Met, PCB Station Code: Naval), Station Name (Station Name: DATA-Y JUNCTION), Station Point (Station Point: 1), Station Ip Address (Station Ip Address: ip-address), Port (Port: 1), Monitoring Type (Monitoring Type: air), and Pcb String (Pcb String: CO,O3,PM10,PM2.5,SO2,NO2,Pb,NH3). Buttons for Add, Edit, and Delete are at the top of this window. At the bottom of the main window, there is a status bar with buttons for Status, NO, NO2, NOx, SO2, Rainfall, PM2.5, and PM10.

Channel

The third node from the tree view is **Channel**, it opens the channel list if there are any and if there are no channel in the list user could add a channel for each every station by clicking on “Add” button from the detail window.



The screenshot shows the SWAN Dashboard application interface. The main window displays a table of parameter information with columns: Id, StationName, ChannelNo, ChannelName, ChannelLoggingUnits, ChannelConversionFactor, IsExternal, OxideName, AnalyzerType, Priority, and ComPort. Below this is a detailed view of a selected channel (NO) in the DataWindow window, showing fields like Station Id, Channel No, Channel Name, Channel Connection Type, Channel Conversion Factor, and various monitoring units.

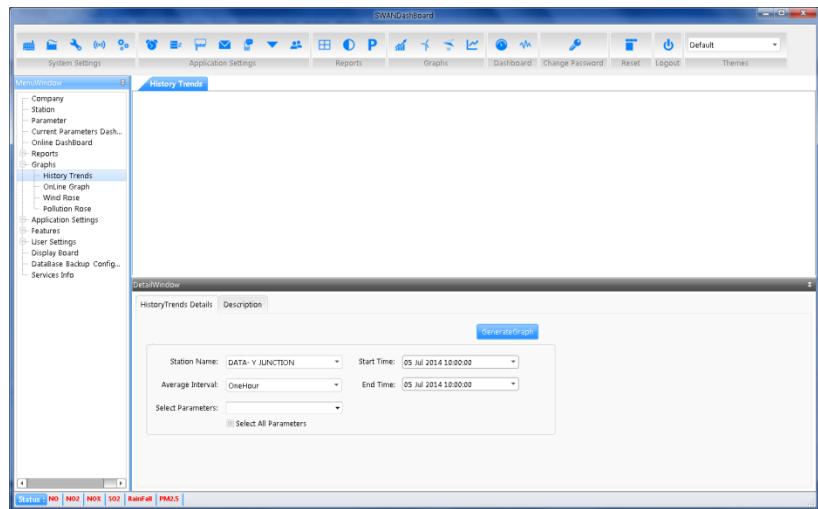
Id	StationName	ChannelNo	ChannelName	ChannelLoggingUnits	ChannelConversionFactor	IsExternal	OxideName	AnalyzerType	Priority	ComPort
3	GATA-Y JUNCTION	1	NO	ug/m3	1	<input checked="" type="checkbox"/>	Nitric Oxide (NO)	HORBBANEWNO	COM1	
5	GATA-Y JUNCTION	5	NO2	ug/m3	1	<input type="checkbox"/>	Nitrogen Dioxide (NO2)	HORBBANEWNO2	COM1	
6	GATA-Y JUNCTION	2	NOX	ug/m3	1	<input type="checkbox"/>	Nitrogen Oxide (NOx)	HORBBANEWXCAL	COM1	
7	GATA-Y JUNCTION	3	SO2	ug/m3	1	<input type="checkbox"/>	Sulphur Dioxide (SO2)	HORBBANEWSO2	COM1	
9	GATA-Y JUNCTION	4	Rainfall	ug/m3	1	<input checked="" type="checkbox"/>	Rainfall	METONECON	COM3	
10	GATA-Y JUNCTION	3	PM2.5	ug/m3	1	<input type="checkbox"/>	Particulate Matter (PM2.5)	METONECON2	COM5	

Clicking on “Edit” button will open up the selected channel in edit mode so that the user could apply modifications to the channel information and update it.

Graphs: There are 4 different graphs that can be generated in the software they are HistoryTrends, Live Graph, Diurnal graph, Windrose & Pollutionrose.

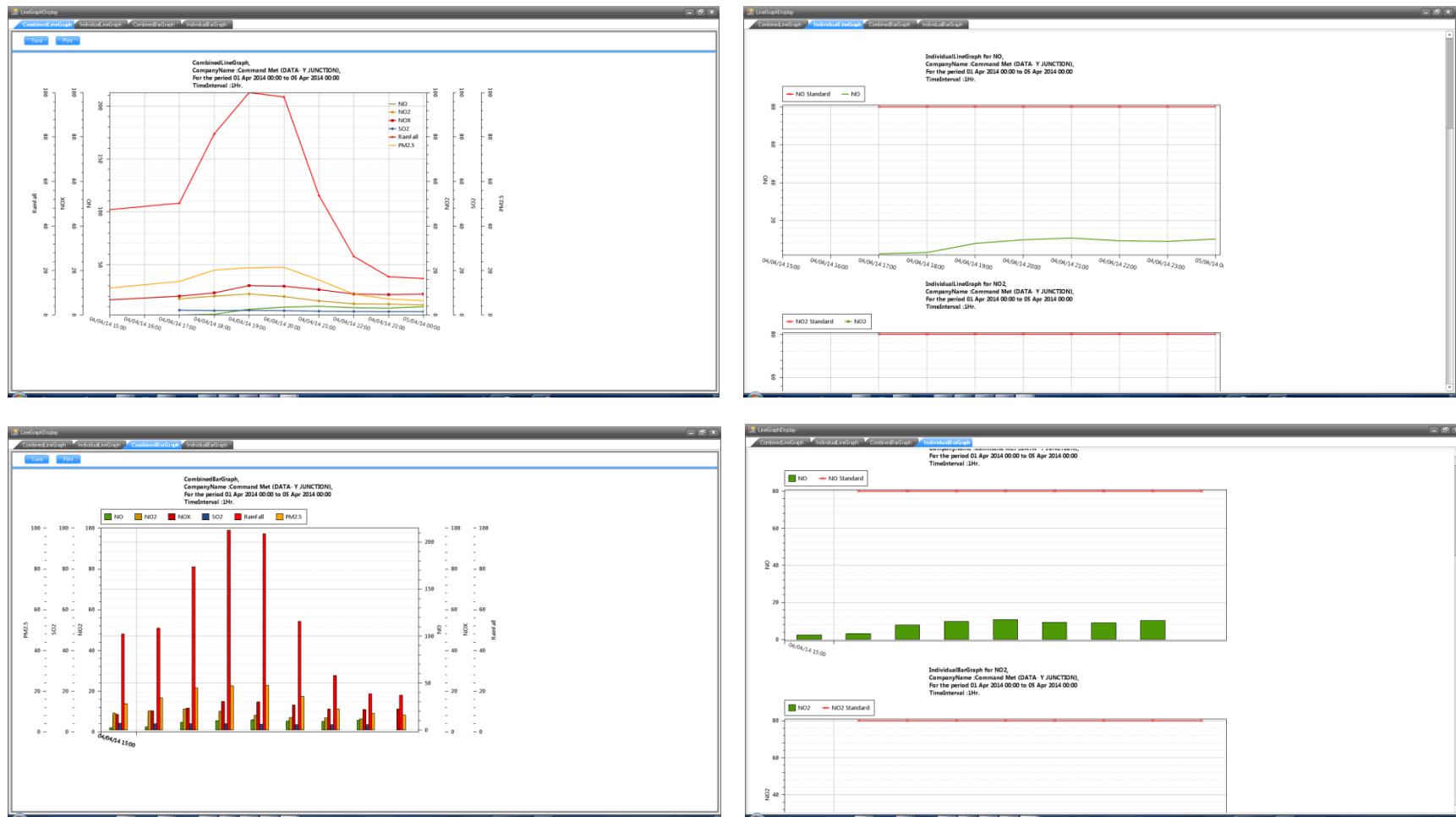
History Trends:

This feature generates an annotated graph (trends) for the selected station and parameters. This will be generated on one year data starting from the current date and time. The criteria options available for this graph are as shown in the below image. Clicking on “Select a Company” drop down will retrieve all the companies that are live (as shown in below image), and enables the user to select a company for which the graph is to be generated. Clicking on “Select a Station” drop down will retrieve all the Live Stations of the selected company (as shown in below image), and enables the user to select a station for which the graph is to be generated.



Clicking on “Select Parameters” drop down will retrieve all the active parameters of the selected station (as shown in below image), and user could select multiple parameters by checking the check box’s from the parameter list. “Select All” Check Box can be checked when the user wanted to select all the parameters, instead of checking each parameter individually.

The below shown image is the generated history trends graph for a station and its parameters. The “Data View” in this graph will display the data on which the graph is generated. Following images are in bar graph and line graph representation.

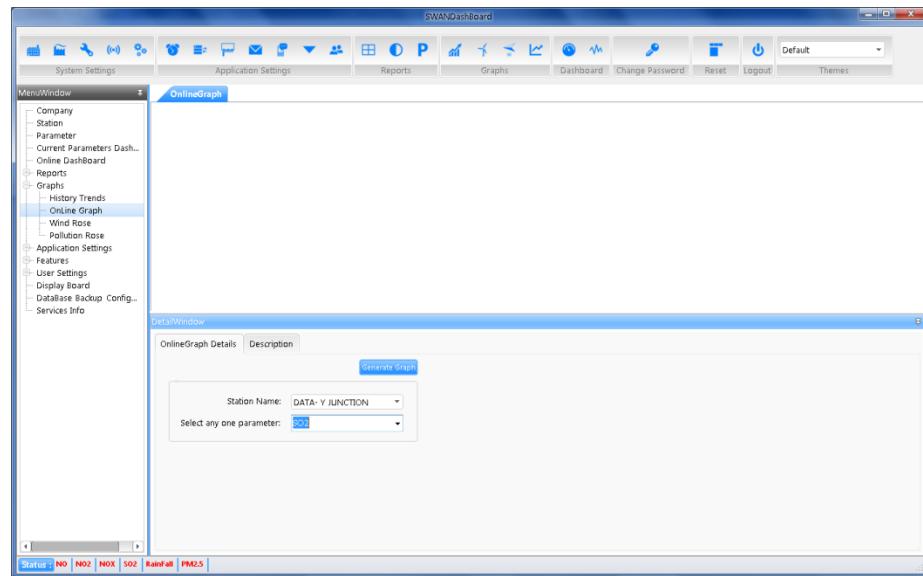


Live Graph:

This feature makes the user to view the live graph generated on contemporary data of the selected parameter from a station. The criteria can be applied as shown in the below image. Clicking on “Select a Company” drop down will retrieve all the companies that are live (as shown in below image), and enables the user to select a company for which the graph is to be generated. Clicking on “Select a Station” drop down will retrieve



all the Live Stations of the selected company (as shown in below image), and enables the user to select a station for which the graph is to be generated. Clicking on “Select a Parameter” drop down will retrieve all the active parameters of the selected station (as shown in below image), and user could select a parameters from the parameter list.



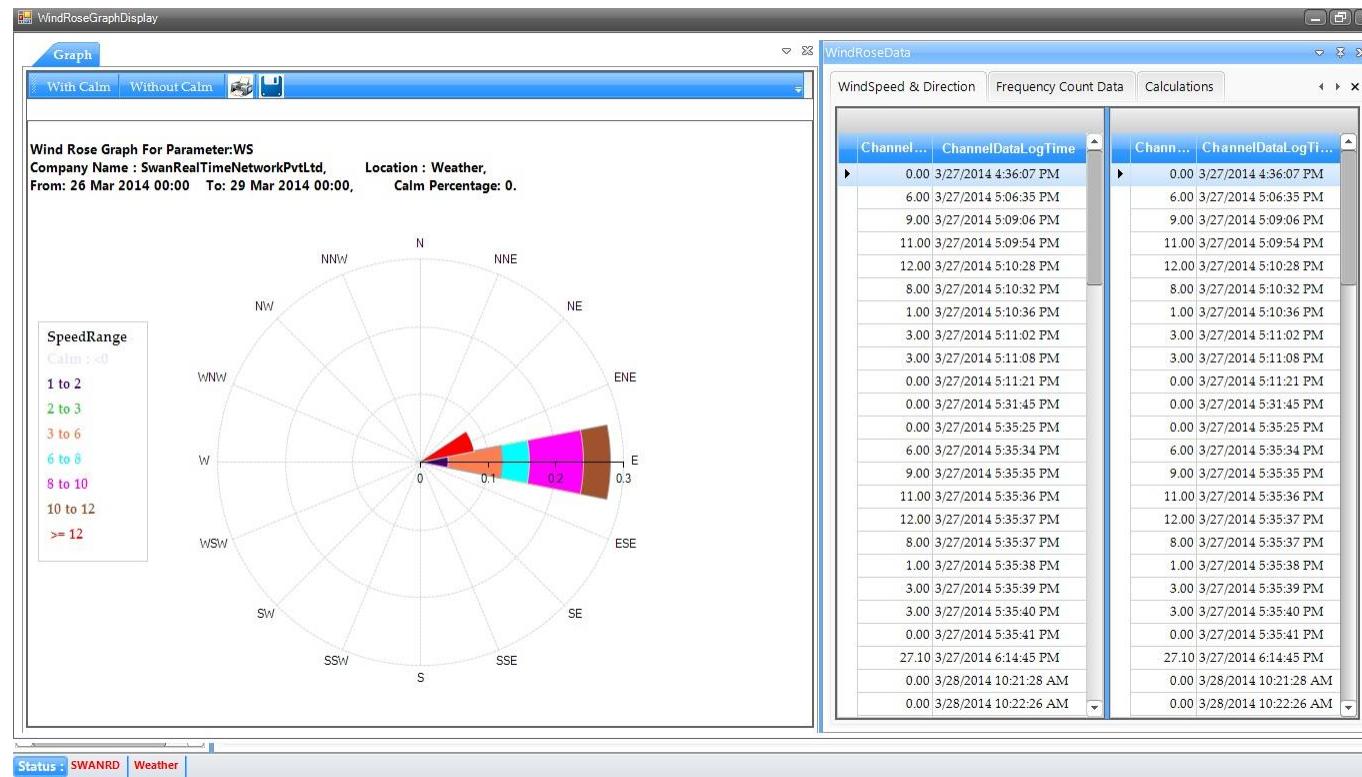
A line graph will be generated starting from the latest data value of the selected parameter to past 5 minutes data. This graph will extend the generated line as the parameters are retrieved from the station every minute; this enables the user to view the online data graph for the selected parameter as shown in the following image.

Windrose & Pollutionrose:

The wind rose is the time honored method of graphically presenting the wind conditions, direction and speed, over a period of time at a specific location. The collected wind data is sorted by wind direction so that the percentage of time that the wind was blowing from each direction can be determined. Typically the wind direction data is sorted into twelve equal arc segments, 30° each segment, in preparation for plotting a circular graph in which the radius of each of the twelve segments represents the percentage of time that the wind blew from each of the twelve 30° direction segments. Wind speed data can be superimposed on each direction segment to indicate, for example, the average wind speed

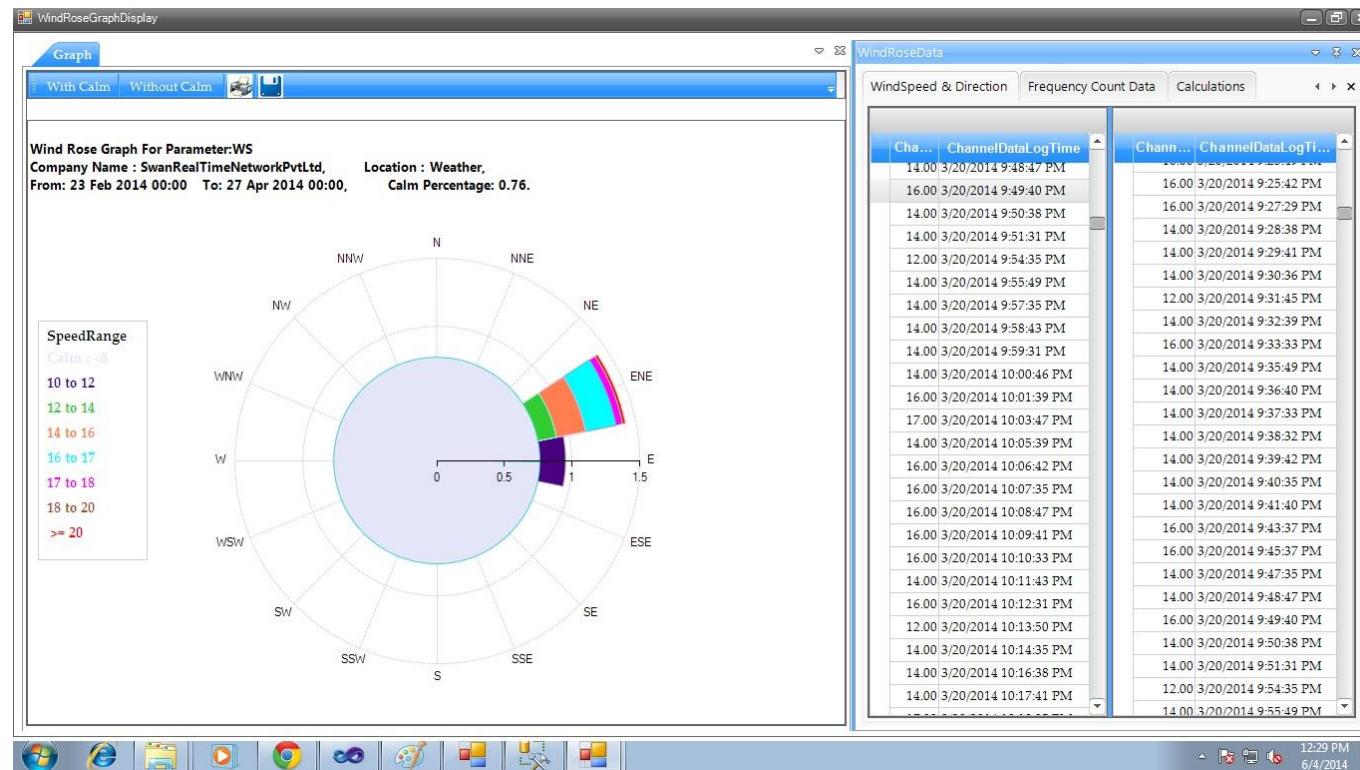


when the wind was blowing from that segment's direction and the maximum wind speed during the logging period. The criteria can be applied as shown in the below image to generate a wind or pollution rose graphs. Clicking on "Select a Company" drop down will retrieve all the companies that are live (as shown in below image), and enables the user to select a company for which the graph is to be generated. Clicking on "Select a Station" drop down will retrieve all the Live Stations of the selected company (as shown in below image), and enables the user to select a station for which the graph is to be generated. Clicking on "Select a Parameter" drop down will retrieve all the Wind Speed parameters of the selected station (as shown in below image) if the rose type is windrose and if it is pollution rose the parameters will be pollutant parameters, and user could select the parameter from the parameter list. Clicking on Start Date or End Date will fetch a calendar so that the user could select the date period to generate the graph.





Windrose with calm %:



Apply the criteria for generating the graphs. As soon as the graph is generated the data on which the graph is generated can also be viewed in the detail window. These graphs have features like print & export.

Reports: We have the following reports that can be generated using the software Data Report, RawData Report, Alarm Report, Summary Report, Pivot Report.

Data Report: This report is used to generate hourly/2 hours/4H/6H/8H/12H average report for a certain time period and selected parameters. Clicking on the "Statistical View" will generate statistical report for the criteria applied.



Continuous Ambient Air Quality Monitoring Report.

Company Name - Command Met.
Location: DATA-Y JUNCTION
From: 02 Apr 2014 11:00 To: 05 Apr 2014 11:00
Average Interval: 1hr

Parameter	Unit	Min	Max	Average	PPStandard
NO	ug/m3	1.74	17.29	5.85	60
NO2	ug/m3	5.54	49.93	18.23	60
NOX	ug/m3	9.02	55.53	24.08	60
SO2	ug/m3	4.57	20.03	6.99	60
Rainfall	ug/m3	33.44	224.40	96.34	60
PM2.5	ug/m3	15.20	50.42	30.39	60

Detailed Data

Date/Time	NO	NO2	NOX	SO2	Rainfall	PM2.5
04 Apr 2014 15:00	7.89	22.27	30.25	6.83	212.92	47.2
04 Apr 2014 15:30	9.42	24.47	29.69	6.54	204.71	40.53
04 Apr 2014 16:00	10.7	15.75	24.24	5.91	118.63	39.54
04 Apr 2014 22:00	9.27	13.04	22.21	5.76	57.87	22.24
04 Apr 2014 22:30	8.95	12.74	21.69	5.61	38.96	17.05
05 Apr 2014 00:00	10.21	12.02	22.23	5.58	36.96	15.97
05 Apr 2014 01:00	9.27	10.47	19.74	5.55	34.37	15.22

RawData Report: This a minute data/raw data report that will be generate for the chosen time period.

RAWDATA REPORT FOR NOX(ug/m3).

Company Name - Command Met.
Location: DATA-Y JUNCTION
From: 04 Apr 2014 00:00 To: 05 Apr 2014 00:00

ChannellDataLogTime	ParameterValue
4/4/2014 2:27:42 PM	16.78
4/4/2014 4:19:55 PM	18.23
4/4/2014 4:21:15 PM	18.43
4/4/2014 4:21:19 PM	19.42
4/4/2014 4:22:18 PM	19.11
4/4/2014 4:22:18 PM	18.30
4/4/2014 4:24:21 PM	18.98
4/4/2014 4:25:17 PM	19.44
4/4/2014 4:26:33 PM	19.72
4/4/2014 4:26:33 PM	19.55
4/4/2014 4:26:29 PM	19.44
4/4/2014 4:26:29 PM	19.79
4/4/2014 4:30:18 PM	19.86
4/4/2014 4:31:27 PM	20.21
4/4/2014 4:32:18 PM	20.48
4/4/2014 4:32:18 PM	20.53
4/4/2014 4:34:57 PM	19.93
4/4/2014 4:35:25 PM	20.49
4/4/2014 4:36:24 PM	21.04
4/4/2014 4:37:17 PM	20.22
4/4/2014 4:38:28 PM	20.75



Alarm Report: Based on the alarm settings for the selected parameter it generates the report that will have the data of the parameter that exceeded the maximum alarm value and is less than the minimum alarm value. It brings the count of minutes for each hour of the selected time period where the alarms are raised.

The screenshot shows the SWAN Dashboard application interface. The top navigation bar includes icons for System Settings, Application Settings, Reports, Graphics, Dashboard, Change Password, Reset, Logout, and Themes. A dropdown menu on the left titled 'MenuWindow' lists various system components like Company, Station, Parameter, Current Parameters Dash., Other Dashboard, Reports, Data Report (selected), Journal Report, Pivot Report, Graphs, Application Settings, Features, User Settings, Display Board, Database Backup Config., and Services Info. The main content area is titled 'DataReport' and contains a 'DetailWindow' for 'DataReport Details'. It features tabs for 'DataReport Details' and 'Description', and a 'Generate Report' button. The 'DataReport Details' tab displays fields for 'Report Type' (set to 'AlarmReport'), 'Station Name' (set to 'DATA- Y JUNCTION'), 'Start Time' (set to '04 Apr 2014 11:03:39'), 'End Time' (set to '05 Apr 2014 11:03:39'), and 'Select Parameters' (with a dropdown menu showing '000' and a checkbox for 'Select All Parameters').

The screenshot shows the SWANDashboard interface with a toolbar at the top containing icons for file operations, system settings, application settings, reports, graphs, dashboard, change password, reset, and log out. The main window displays a report titled "ALARM REPORT FOR NOx(lug/m3)". The report details are as follows:

Company Name: Command Met
 Location: DATA- Y.JUNCTION
 From: 04 Apr 2014 11:00 To: 05 Apr 2014 11:00

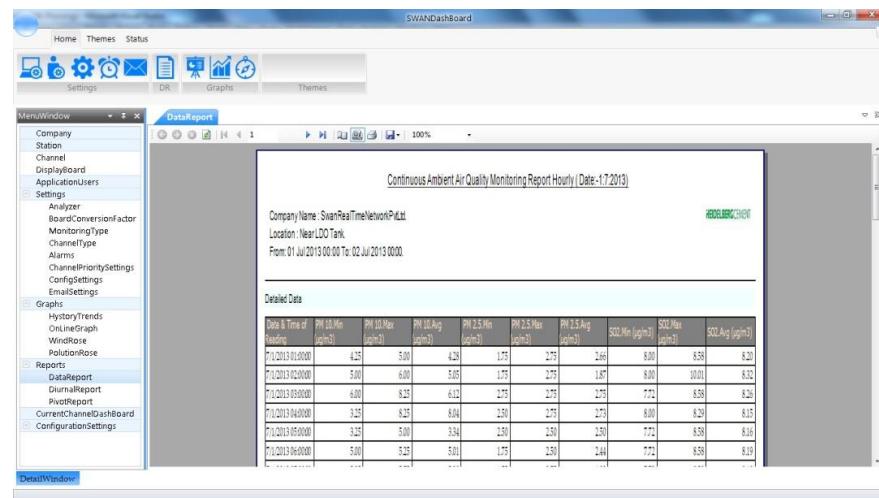
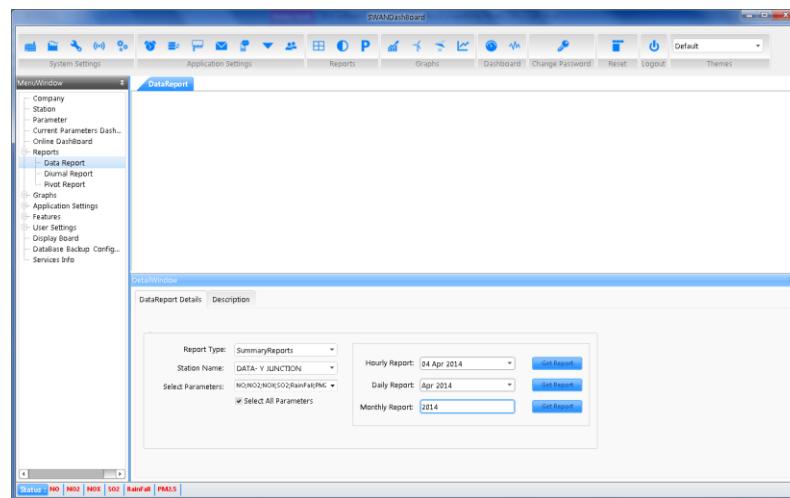
Detailed Data

Timestamp	Event Type	Emergency Level	Normal Level
04 Apr 2014 11:00:00	04 Apr 2014 12:00:00	0	High
04 Apr 2014 11:00:00	04 Apr 2014 12:00:00	0	Low
04 Apr 2014 12:00:00	04 Apr 2014 12:00:00	0	High
04 Apr 2014 12:00:00	04 Apr 2014 13:00:00	0	Low
04 Apr 2014 12:00:00	04 Apr 2014 14:00:00	0	High
04 Apr 2014 12:00:00	04 Apr 2014 14:00:00	0	Low
04 Apr 2014 12:00:00	04 Apr 2014 15:00:00	0	High
04 Apr 2014 12:00:00	04 Apr 2014 15:00:00	0	Low
04 Apr 2014 12:00:00	04 Apr 2014 15:00:00	0	High
04 Apr 2014 12:00:00	04 Apr 2014 15:00:00	0	Low
04 Apr 2014 12:00:00	04 Apr 2014 16:00:00	0	High
04 Apr 2014 12:00:00	04 Apr 2014 16:00:00	0	Low
04 Apr 2014 13:00:00	04 Apr 2014 17:00:00	0	High
04 Apr 2014 14:00:00	04 Apr 2014 17:00:00	0	Low
04 Apr 2014 17:00:00	04 Apr 2014 18:00:00	0	High
04 Apr 2014 17:00:00	04 Apr 2014 18:00:00	0	Low
04 Apr 2014 18:00:00	04 Apr 2014 19:00:00	0	High
04 Apr 2014 18:00:00	04 Apr 2014 19:00:00	0	Low
04 Apr 2014 19:00:00	04 Apr 2014 20:00:00	0	High
04 Apr 2014 19:00:00	04 Apr 2014 20:00:00	0	Low
04 Apr 2014 20:00:00	04 Apr 2014 21:00:00	0	High
04 Apr 2014 20:00:00	04 Apr 2014 21:00:00	0	Low
04 Apr 2014 21:00:00	04 Apr 2014 22:00:00	0	High

Status: NO NOx NOX SO2 Rainfall PM2.5

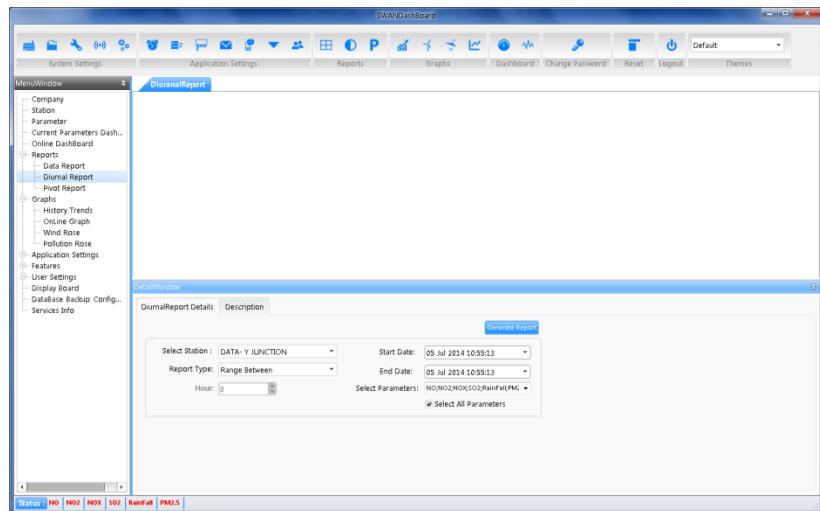


Summary Report: This is generated to display the minimum, maximum and average of the selected parameters for the time period applied in the criteria.

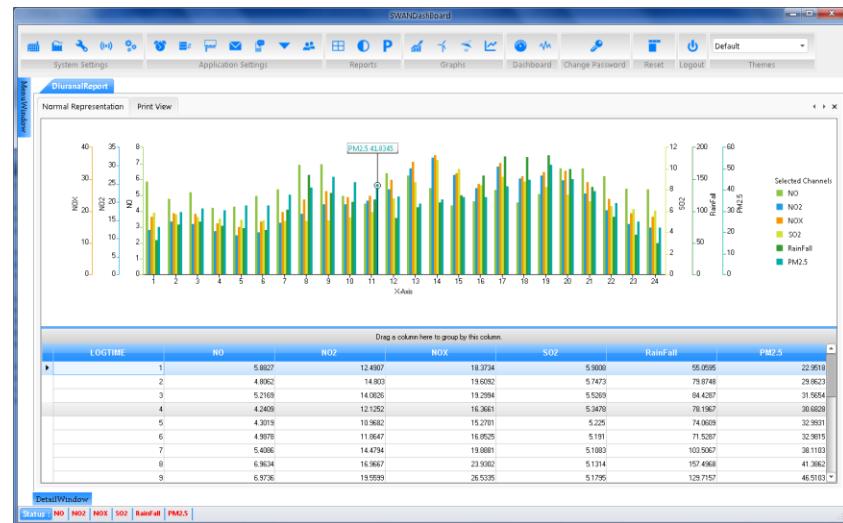




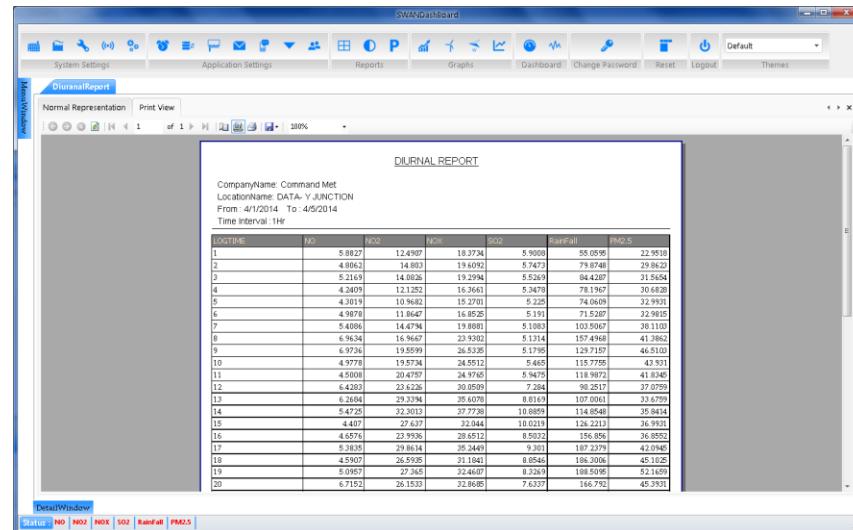
Diurnal Graph: This is a feature that generates a report for the selected parameters of a station on hourly basis for 24 hours, by averaging the data of that hour for the selected time period. A graph is also generated based out of this data. Criteria can be applied as shown in the following image.



The generated graph is shown in the “Chart View” tab of the page as shown in the following image. An individual line will be generated for each parameter that is selected, the graph has 24 hours in the x-axis as a scale. This is generated by averaging the data of the hour throughout the selected time period, like the data logged between 0 to 1AM throughout the selected time period will be averaged and considered as one data point, similarly for the remaining 23 hours will be calculated and a line graph will be generated for a parameter. If mouse is hovered on the data point of a line, a tool tip will be displayed with the parameter name and averaged value for that hour. The data view of the graph that is generated out of it is also shown in the following image.



The diurnal report in print view mode.





Pivot Report: It is a data summarization table, and can automatically sort, count, total or give the average of the data stored in one table. As shown in the below image, interval type and data on which the report has to be generated will be selected by the user and clicking on “Generate” button to view the report.

The image shows two side-by-side screenshots of the SWAN software interface. Both screenshots display the 'PivotReport' window. The left screenshot shows a parameter selection dropdown with 'Company' and 'Station' options, and a table with columns: Nitrogen Dioxide (PPM), Nitrogen Oxide (PPM), Particulate Matter (Rainfall), and Sulphur Dioxide (PPM). The right screenshot shows a similar interface with a different set of parameters and data. Both windows include a 'Generate Report' button and a 'Time Interval' dropdown menu containing options like 'By_Day_Average', 'SelectReportType', 'By_Day_Average', 'By_Month_Average', and 'By_Year_Average'. The bottom status bar of both windows shows environmental monitoring parameters: NO, NO2, NOX, SO2, Rainfall, and PM2.5.

The generated report will look like the one in the following diagram. This gets generated for all the stations and all the parameters on selected average interval for the selected date/month/year.



A screenshot of the SWAN Dashboard software interface. The window title is "SWANDashboard". The menu bar includes "System Settings", "Application Settings", "Reports", "Graphs", "Dashboard", "Change Password", "Reset", "Logout", and "Themes". The main content area shows a "Pivot Report" titled "ParameterData". The report displays data for two stations: "Company1 M" and "Company2 M". The columns represent parameters: Nitrogen Oxide (NO), Nitrogen Dioxide (NO2), Nitrogen Oxide (NOx), Particulate Matter (PM), Rainfall, and Sulphur Dioxide (SO2). The data values are identical for both stations across all parameters. At the bottom of the report, there is a "DetailWindow" tab and a status bar with tabs for "Status", "NO", "NO2", "NOx", "SO2", "Rainfall", and "PM2.5".

Application Settings

Clicking on “**Settings**” tree node will open a sub tree node list that has the following features that can be configured by applying the settings for them.

Analyzer Settings: The following image shows the analyzer settings screen that the user could configure and save. Similar to the afore mentioned layout it displays the list of analyzer settings and in the detail window it displays the detailed information of the selected analyzer. To edit available Analyzer details click on Edit button . To add a new Analyzer details click on Add button. If the Analyzer that you are using is matched with the available Analyzer details , Then just click on Edit button on the selected analyzer detail window , it will open a make the detail window of analyzer to edit mode. In the "Analyzer Details" window, set the com port for the Analyzer and click on Update.

The "Analyzer" window contains following fields.

Analyzer Type: "Specify Analyzer Type that you are using"

Analyzer Command: "Command that has to send to the Analyzer to get the value"



Analyzer Password: "If Analyzer prompts a password"

Analyzer Com Port: "The Comport to which the Analyzer is connected"

Analyzer Baud Rate: "Baud Rate of the comport"

Analyzer Index: "Index of the value that is getting from Analyzer".

Analyzer Length: "Length of the Value that is getting from Analyzer".

Analyzer Communication Type: should be "c".

Data Bits: "Depends upon Analyzer Communication (comport) Settings ". Example 8 or 9

Parity: "Depends upon Analyzer Communication (comport) Settings ". Example Even, Odd, None, e.t.c

Stop Bits: "Depends upon Analyzer Communication (comport) Settings ". Example 1.

* Note: The Comport Settings in Analyzer Device and in Analyzer details must be same.



SWANDashBoard

System Settings Application Settings Reports Graphs Dashboard Change Password Reset Logout Themes Default

AnalyzerType AnalyzerCommand AnalyzerPassword AnalyzerComPort BaudRate AnalyzerIndex AnalyzerValueLength CommunicationType DataBits Parity StopBits

3	DTRCH17										
3	DTRCH15										
3	DTRCH16										
3	HORRIBACO			COM5	9600	11	11 c	8	none	one	
3	HORRIBANH3				9600	11	11 c	8	none	one	
4	HORRIBANO			COM4	9600	11	11 c	8	none	one	
4	HORRIBANO2			COM4	9600	11	11 c	8	none	one	
4	HORRIBANOX			COM4	9600	11	11 c	8	none	one	

Analyzer Details Description

Add Edit Delete

Analyzer Type: HORRIBANO Analyzer Command:
Analyzer Password: Analyzer ComPort: COM4
Analyzer Baud Rate: 9600 Analyzer Index: 11
Analyzer Value Length: 11 Communication Type: c
Data Bits: 8 Parity: none
Stop Bit: one

Status : PM-10 PM-2.5 NO NO2 NOx SO2 RF RH Temp WD WS O3 O2 THC CO

7:11 PM 6/30/2014

The screenshot shows the SWANDashBoard application interface. At the top is a menu bar with tabs: System Settings, Application Settings, Reports, Graphs, Dashboard, Change Password, Reset, Logout, and Themes. Below the menu is a toolbar with various icons. The main area has two windows: 'AnalyzersInfo' and 'DetailWindow'. The 'AnalyzersInfo' window displays a grid of analyzer configurations with columns for Id, AnalyzerType, AnalyzerCommand, AnalyzerPassword, AnalyzerComPort, BaudRate, AnalyzerIndex, AnalyzerValueLength, CommunicationType, DataBits, Parity, and StopBits. One row in the grid is selected, showing 'HORRIBANO' details. The 'DetailWindow' shows fields for Analyzer Type (HORRIBANO), Analyzer Command (COM4), Analyzer Password, Analyzer Baud Rate (9600), Analyzer Index (11), Analyzer Value Length (11), Communication Type (c), Data Bits (8), Parity (none), and Stop Bit (one). Below the DetailWindow is a status bar with environmental monitoring parameters (PM-10, PM-2.5, NO, NO2, NOx, SO2, RF, RH, Temp, WD, WS, O3, O2, THC, CO) and a system status bar at the bottom.

BoardConversionFactor: Clicking on this node will bring the board conversion factor screen that has the list of board conversion factor (list of the fields are id, channelname ,Acon, Bcon, Ccon) for each channel. User could view the details of the selected item in the detail window and can add new board conversion factor for the channels as shown in the following image.

Channel Id : specify to which channel you want to set Board Conversion Factor.

Formula :

Acon : 0

Bcon : Instrument Range / 12 bit AD Digital Count 4000

Ccon : 0



SWANDashBoard

System Settings Application Settings Reports Graphs Dashboard Change Password Reset Logout Themes

MenuWindow

- Company
- Station
- Parameter
- Current Parameters
- DashBo...
- Online DashBoard
- Reports
- Graphs
- Application Settings
 - Analyzer
 - Board Conversion Factor
 - Monitoring Type
 - Parameter Type
 - Alarms
 - Parameter Order Settings
 - Config Settings
 - Email Settings
- Features
- User Settings
- Display Board
- DataBase Backup Configurat...
- Services Info
- DBSchedulers
- Stack
- TestForm
- UtilitiesServiceSettings

BoardConversionFactorInfo

ID	ChannelId	ChannelName	Acon	Bcon	Ccon
16	33	O2	0	0.0062	0
17	19	NOx	0	0.2	0

DetailWindow

Board Conversion Factor Details Description

Add Edit Delete

Channel Id: O2

A con: 0

B con: 0.0062

C con: 0

Status : PM-10 | PM-2.5 | NO | NO2 | NOx | SO2 | RF | RH | Temp | WD | WS | O3 | O2 | THC | CO |

7:12 PM
6/30/2014

Monitoring Type: Select " Monitoring Type" node from the tree view, and it opens the table with columns as ("Id" , " Monitoring Type" , "Path"). Defaultly this table contains some rows with garbage data. Delete these default rows. To add Monitoring type Information click on Add and in the "Monitoring Type Details" window, add the details and Click on "save" .

Monitoring Types window contains following fields

Monitoring Type : "Air_pollution OR Stack"

Flat File Path : "Path to save "



SWANDashBoard

System Settings Application Settings Reports Graphs Dashboard Change Password Reset Logout Default Themes

MenuWindow

- Company
- Station
- Parameter
- Current Parameters DashBo...
- Online DashBoard
- Reports
- Graphs
- Application Settings
 - Analyzer
 - Board Conversion Factor
 - Monitoring Type
 - Parameter Type
 - Alarms
 - Parameter Order Settings
 - Config Settings
 - Email Settings
- Features
- User Settings
- Display Board
- DataBase Backup Configurat...
- Services Info
- DBSchedulers
- Stack
- TestForm
- UtilitiesServiceSettings

MonitoringTypeInfo

ID	MonitoringTypeName	FlatFilePath
2	Ambient	path
14	Stack	NA

DetailWindow

Monitoring Type Details Description

Add Edit Delete

Monitoring Type: Ambient

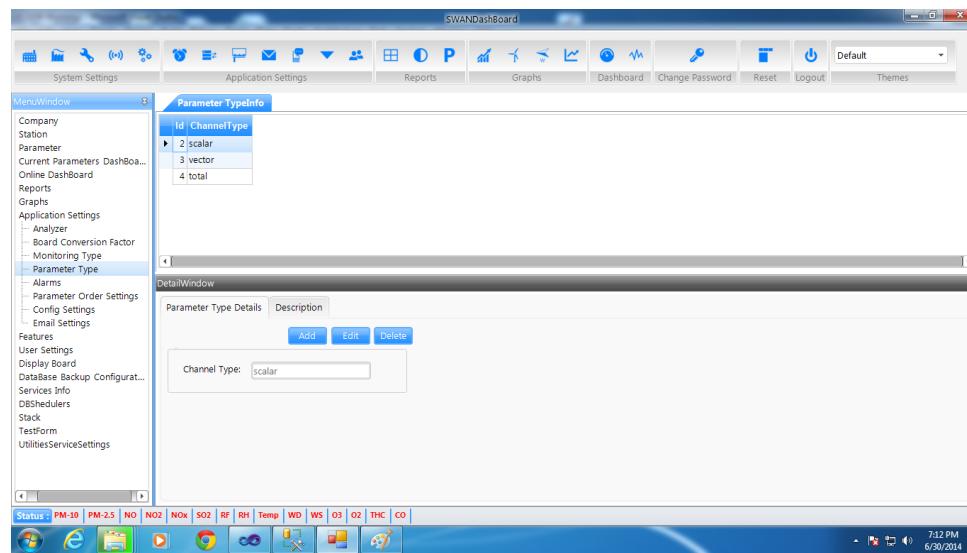
Flat File Path: path

Status : PM-10 | PM-2.5 | NO | NO2 | NOx | SO2 | RF | RH | Temp | WD | WS | O3 | O2 | THC | CO |

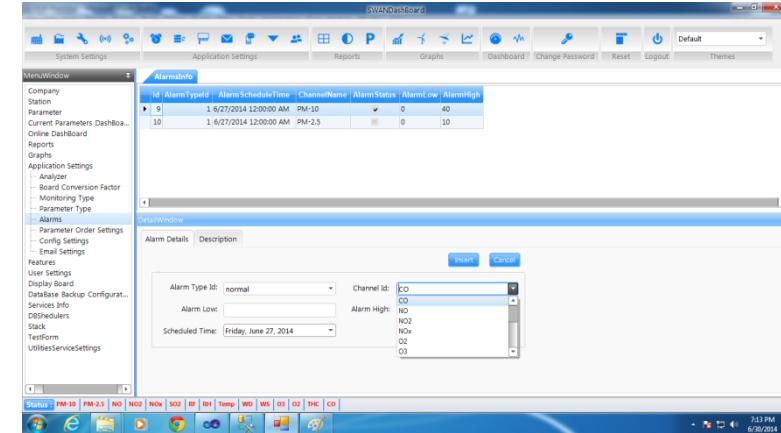
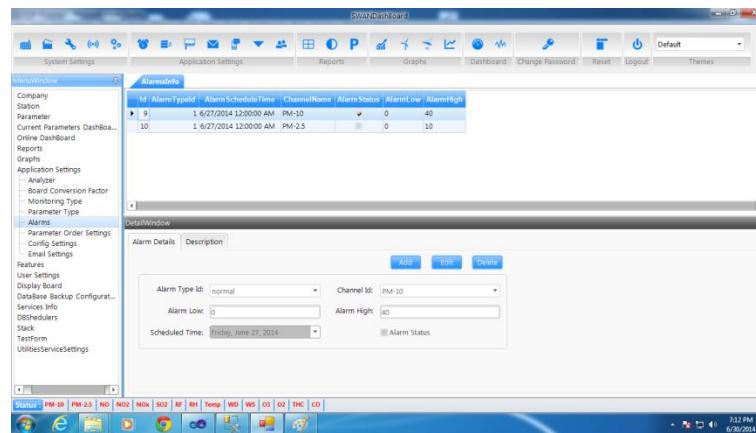
7:12 PM 6/30/2014

A screenshot of the SWANDashBoard application. The interface includes a top menu bar with various icons and buttons like System Settings, Application Settings, Reports, Graphs, Dashboard, and Logout. On the left, there's a vertical navigation menu with sections for Company, Station, Parameter, and various dashboards. The main area shows a table titled 'MonitoringTypeInfo' with two rows: one for 'Ambient' monitoring type with 'path' as the flat file path, and another for 'Stack' which is marked as 'NA'. Below this is a 'DetailWindow' pane showing 'Monitoring Type Details' with fields for 'Monitoring Type' (set to 'Ambient') and 'Flat File Path' (set to 'path'). At the bottom, there's a status bar with environmental parameters (PM-10, PM-2.5, NO, NO2, NOx, SO2, RF, RH, Temp, WD, WS, O3, O2, THC, CO) and a date/time stamp (7:12 PM, 6/30/2014).

Parameter Type: This is used to define the type of parameter, based on this we segregate the parameters while generating reports.

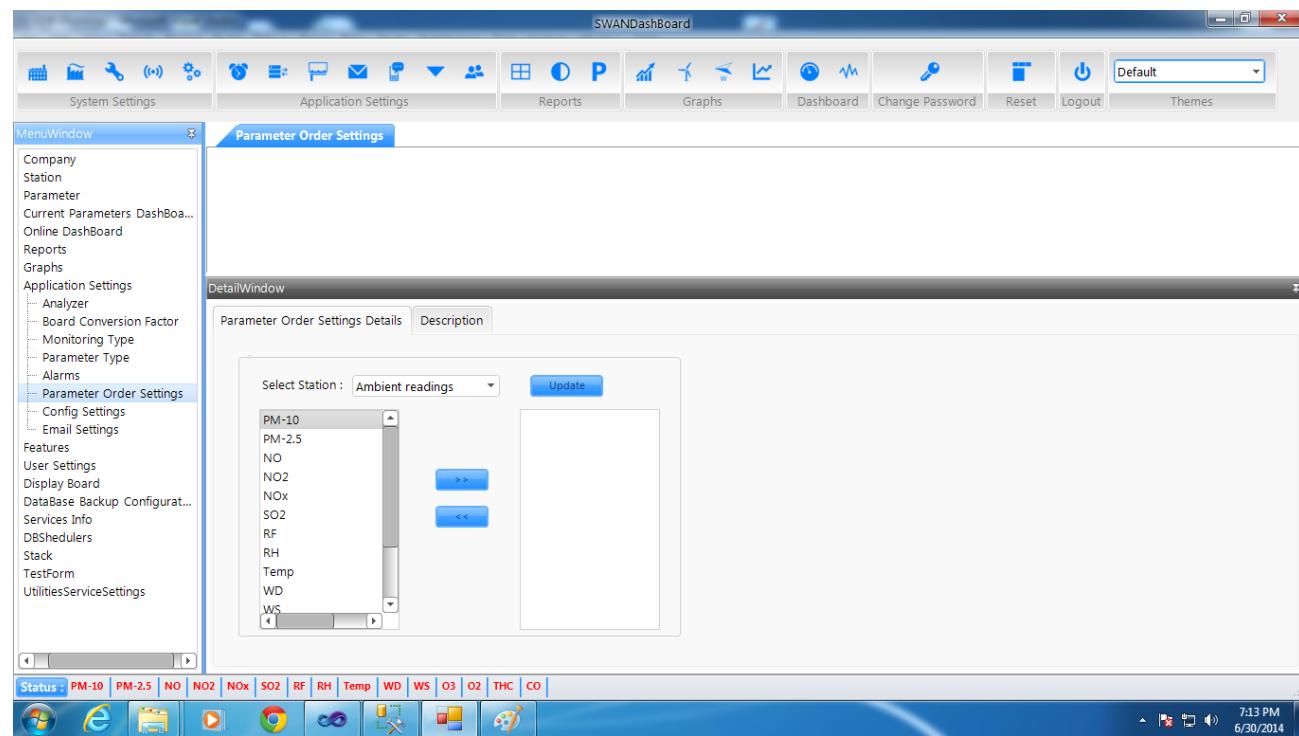


Alarms: This is used to set the alarms for the channels in the application. Low alarms and High alarms can be set for each channel that is configured. Based on the alarm values that are set, if the channel data reach or exceed them an SMS/Email notification can be sent if they are configured to be sent.





Parameter Order Settings: This is the new feature in V 2.2, this makes the user to configure the order of the parameters that will be displayed and follow the order of the parameters while generating the reports or graphs. Select the station name and it fetches all the parameters on to the left side list box. Set the order for all the parameters that are added in the application as shown in the image. Select the parameter and click on the “>>” button to move on to the right side list and continue to move for other parameters as well based on the order wishing them to be. The right hand side list will have the parameters that are set to in an order based on your selection.





Config Settings: This is used to configure the SEW software settings like,

	GroupName	Content Name	Description
1	Reports	Reportspath	
2	CalibrationData	Flag	
3	CalibrationData	TimePeriod	
4	CentralChannelData	NoOfRecordsForCentral	No. of Records per iteration to log in to the central server.
5	CPCBChannelData	NoOfRecordsForCPCB	No. of Records per iteration to log in to the CPCB server.
6	CalibrationData	LastUpdateTime	When was the last calibration done.
7	EmailNotification	ChannelsList	List of channels to which notifications have to be sent
8	EmailNotification	DefaultEmailReport	Flag to send a default data report for the most recent 24 hour data as an email.
9	EmailNotification	ReportPeriod	For the other reports to be sent what is the period of the data to be considered to generate a report and send it across through email.
10	EmailNotification	StationName	Specify the station name for which the reports has to be generated.
11	EmailNotification	TimeInterval	Average time interval for the email notification reports has to be mentioned here.
12	CentralChannelDataTransfer	NoofRecords	
13	EmailNotification	StartingHourForTwelveHoursReport	What is the starting time for the 12 hour email report generation, for example: 6Am to 6PM or 7AM to 7PM or etc., should specify the starting hour like 6AM or 7AM or etc.,
14	APPCBFile	APPCBTimerInterval	Average time interval for the APPCB text file generation, has to be mentioned here. This is in hours.
15	APPCFile	APPCBFilePath	Provide the path for the generated APPCB text files



			that has to be stored.
16	MPPCBFile	MPPCBTimerInterval	Average time interval for the MPCB text file generation, has to be mentioned here. This is in hours.
17	MPPCBFile	MPPCBFilePath	Provide the path for the generated MPCB text files that has to be stored.
18	MPPCBFile	HostAddress	Provide the FTP URL for the MPCB file upload.
19	MPPCBFile	FtpUserName	Provide the FTP login user name to upload the files.
20	MPPCBFile	FtpPassword	Provide the FTP login password to upload the files.
21	ETSFile	ETSTimerInterval	Average time interval for the ETS text file generation, has to be mentioned here. This is in hours.
22	ETSFile	ETSFilePath	Provide the path for the generated ETS text files that has to be stored.
23	CPCBServerDetails	CPCBSqlServerInstanceName	Provide the CPCB Server IPAddress/SQL Instance Name for uploading the data CPCB.
24	CPCBServerDetails	CPCBSqlServerDBName	Provide the SQLServer DatabaseName at CPCB server.
25	CPCBServerDetails	CPCBSqlServerUserName	Provide the SQLServer UserName at CPCB server.
26	CPCBServerDetails	CPCBSqlServerUserPwd	Provide the SQLServer Password at CPCB server.
27	CentralServerDetails	CentralSqlServerInstanceName	Provide the Central Server IPAddress/SQL Instance Name for uploading the data Central.
28	CentralServerDetails	CentralSqlServerDBName	Provide the SQLServer DatabaseName at Central server.
29	CentralServerDetails	CentralSqlServerUserName	Provide the SQLServer UserName at Central server.
30	CentralServerDetails	CentralSqlServerUserPwd	Provide the SQLServer Password at Central server.
31	DBBackup	localInstances	Provide the local PC SQL Server Instance name to take backup of the database.
32	DBBackup	UserName	Provide the SQLServer UserName of LocalPC.
33	DBBackup	Password	Provide the SQLServer Password of LocalPC.
34	DBBackup	DatabaseName	Provide the SQLServer DatabaseName of LocalPC.
35	DBBackup	backupLocation	Provide the path for the Database Backup files to be



			stored.
36	DBBackup	Daily	Set to true if database backup is to be taken daily.
37	DBBackup	Weekly	Set to true if database backup is to be taken weekly.
38	DBBackup	Monthly	Set to true if database backup is to be taken monthly.
39	CentralChannelData	RawDataUploading	Set to true if raw data has to be uploaded to the central server.
40	CentralChannelData	SummaryDataUploading	Set to true if summarized or averaged data has to be uploaded to the central server.
41	OnlineToc	TocDigitalAndAnalogDataFlag	If the application is for Online TOC, set it true and the corresponding functionality of TOC will be executed rather than the regular AQMS/CEMS functionality.
42	DataArchive	DataArchiveStart	Flag it to true if data archive has to be done, that makes the data get archived which is older than a month on a regular basis. It archives the data into new databases of the same PC/Server.
43	DataArchive	NoOfMonthsData	Provide a value for how many months of the data has to be retained in the live database. Based on this, earlier data to these months will be archived to new database's and tables.
44	PCBFileGenerate	PCBType	Provide APPCB if the pcb text file has to be generated for APPCB, if it is for MPCB provide MPCB as the value for it similarly for other PCB's.
45	SMSAlerts	SendSMS	Configure to send or stop SMS alerts. Set true/false.
46	SMSAlerts	SMSAlertsUserName	Provide SMS gateway user name.
47	SMSAlerts	SMSAlertsPassword	Provide SMS gateway password.
48	EmailNotification	ReportType	Provide the report type to send a notification with an attachment of this report type. DataReport/StatisticalReport/SummaryReport/Alarm Report are the options that can be set.
55	DisplayBoardService	Flag	Should the displayboard text file has to be generated

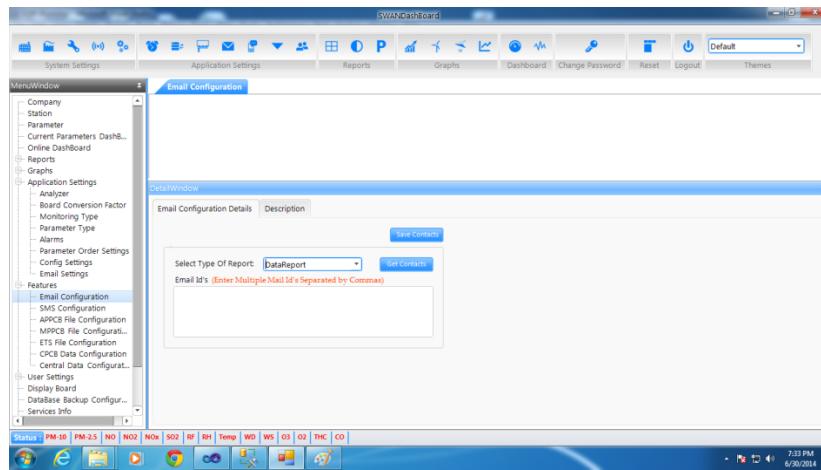


			or not, can be set here.
56	EmailNotification	TimeInterval	Set the time interval to execute the emailnotification routine to check if there are any scheduled notifications.
57	EmailNotification	Flag	Set it to true if email notifications are required.
58	DisplayBoard	TimeIntervalInSec	Provide time interval in seconds at what intervals the data for the text file has to be averaged.
59	DisplayBoard	TimeGapBetweenSchedulersInSec	If there are multiple stations, at what intervals does the text file for displayboard for each station has to be generated can be set here.
60	DisplayBoard	GenerateMultipleDBTextFiles	If multiple text files for multiple stations are to be generated set this flag.

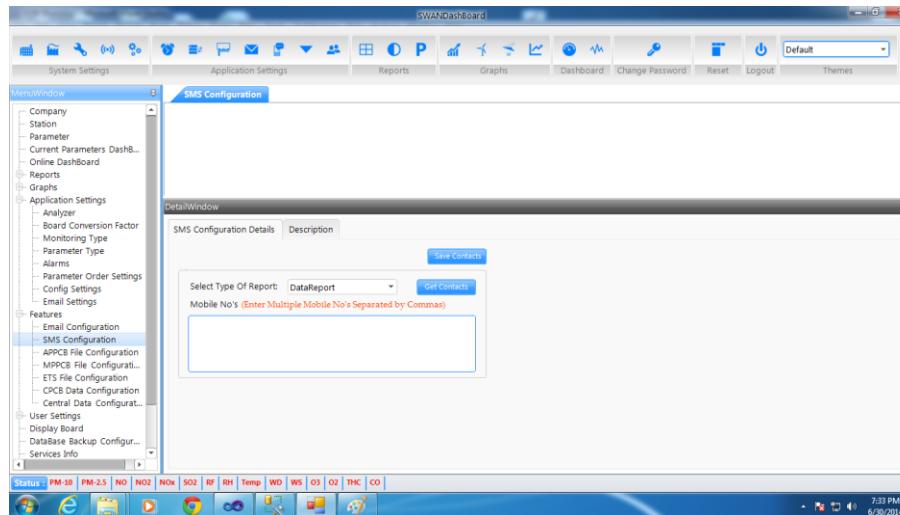
Email Settings: This is used to configure the email notifications that are to be generated automatically by the SEW service. By default it generates a 24 hour data report every day, user could configure it to generate it for 12 or 24 hour report with the average interval can be set from the list 1/2/4/6/8/12 hours. User could configure this email notification to be sent to only certain parameters.

Features: This tree node as sublist of the nodes that has

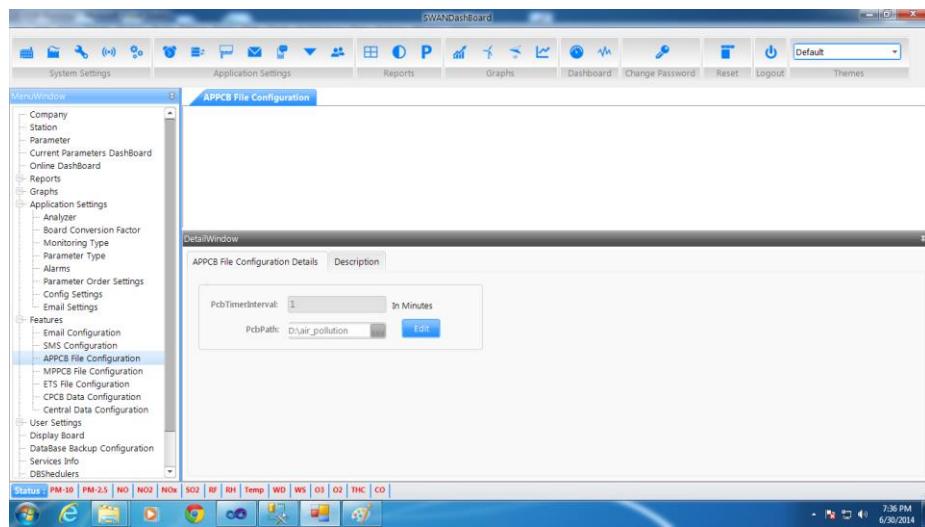
1. **Email Configuration:** This configuration settings will have an option to add the email ids to which the email notifications has to be sent.



2. **SMS Configuration:** This configuration settings will have an option to add the phone numbers to which the notifications have to be sent.

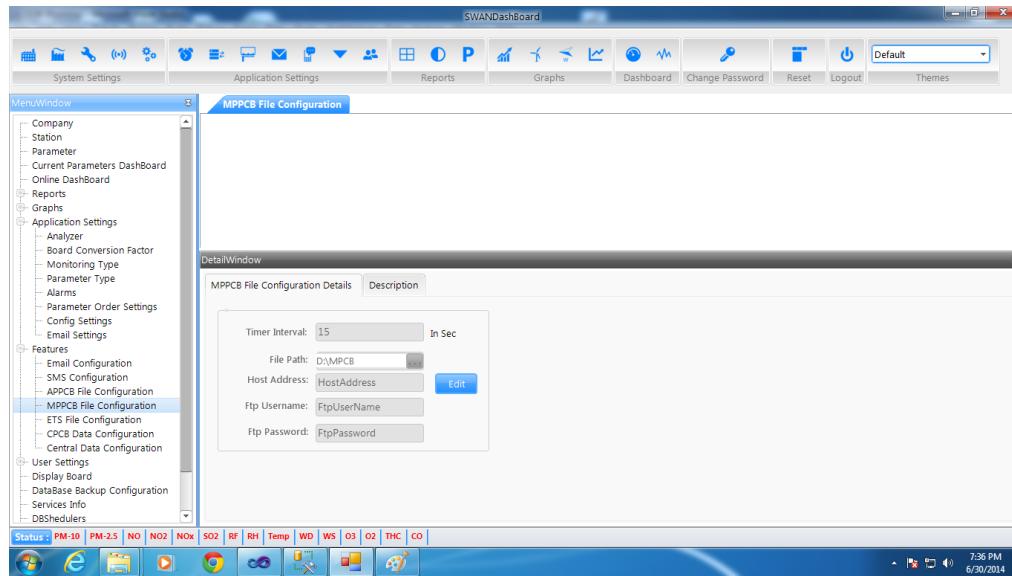


3. **APPCB File Generation:** This settings will have an option to add the TimeInterval to generate the file and Path where to save the generated file .



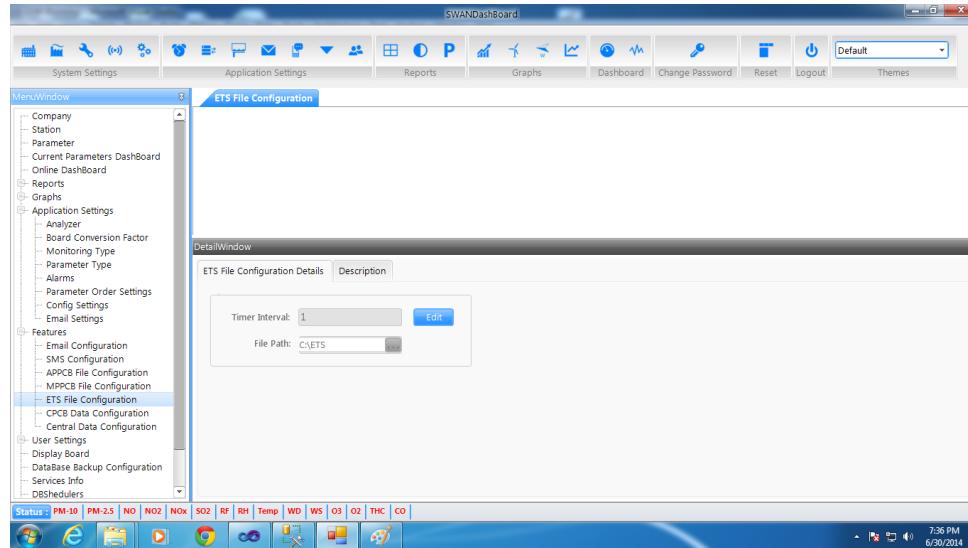


4. **MPPCB File Generation:** This settings will have an option to add the to generate the file and Path where to save the generated file and FTPServerDetails like HostAddress,FTPUserName and FtpPassword.



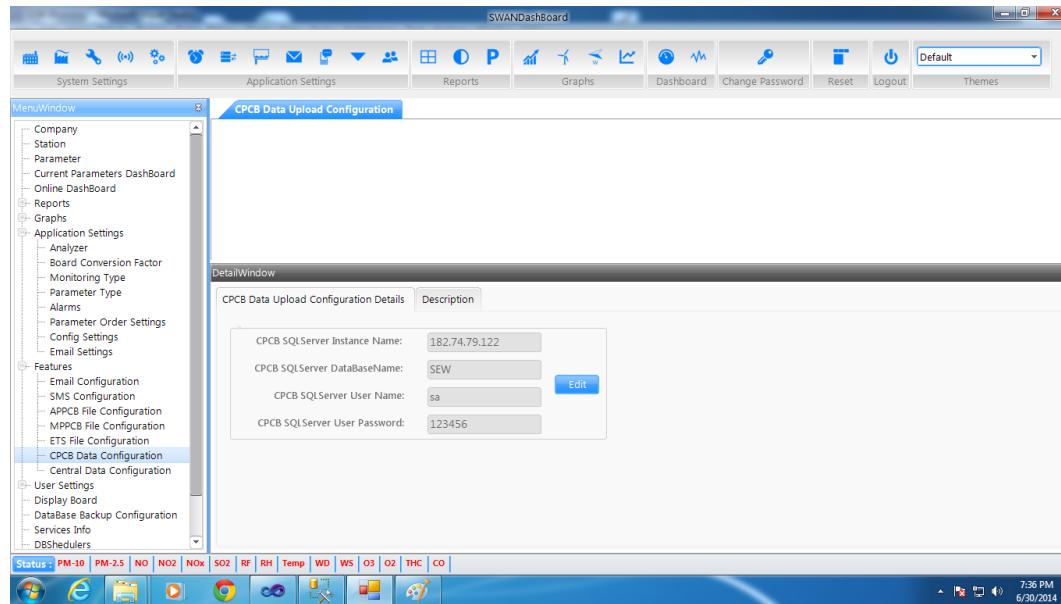


5.ETS File Generation: This settings will have an option to add the TimeInterval to generate the file and Path where to save the generated file.





6. CPCB Data Upload Configuration: This settings will have an option to add the CPCB SQLServerDetails like InstanceName, DataBaseName, Sqlserver userName and SqlServerPassword.





7. Central Data Upload Configuration: This configuration settings will have an option to add the Central SQLServerDetails like InstanceName(This can be retrieved from Central Servers Management Studio), DataBaseName,Sqlserver userName and SqlServerPassword.

A screenshot of the SWANDashBoard application interface. The title bar says "SWANDashBoard". The menu bar includes "System Settings", "Application Settings", "Reports", "Graphs", "Dashboard", "Change Password", "Reset", "Logout", and "Themes". A toolbar with various icons is above the menu. On the left is a tree view "MenuWindow" with nodes like Company, Station, Parameter, Current Parameters DashBoard, Online DashBoard, Reports, Graphs, Application Settings (Analyzer, Board Conversion Factor, Monitoring Type, Parameter Type, Alarms, parameter Order Settings, Config Settings, Email Settings), Features (Email Configuration, SMS Configuration, APPCB File Configuration, MPCB File Configuration, ETS File Configuration, CPCB Data Configuration), Central Data Configuration (selected), User Settings, Display Board, DataBase Backup Configuration, Services Info, DBSchedulers. At the bottom are status indicators for PM-10, PM-2.5, NO, NO2, NOx, SO2, RF, RH, Temp, WD, WS, O3, O2, THC, CO. The main area shows a "Central Server Data Upload Configuration" window with a "DetailWindow" containing fields: Central SQLServer Instance Name: CentralServerName, Central SQLServer DataBaseName: SEW, Central SQLServer User Name: sa, Central SQLServer User Password: k24ski. The status bar at the bottom right shows 7:36 PM, 6/30/2014.



User Settings: This can be used to manage user roles and users.

1. User Roles: User could able to create roles by enabling the privileges for the user using the User Role Authentications. Input the role name, role name in small letters and description of the role. There is a “SetRoleAuthentication” button, clicking on this will bring the role authentication screen where user could set the permissions for different features in the application for this role.

A screenshot of the SWANDashBoard application interface. The main window title is "SWANDashBoard". The top menu bar includes "System Settings", "Application Settings", "Reports", "Graphs", "Dashboard", "Change Password", "Reset", "Logout", and "Themes". A toolbar below the menu contains various icons for system management. On the left, a vertical navigation menu titled "MenuWindow" lists items like Company, Station, Parameter, Current Parameters Dashboard, Online Dashboard, Reports, Graphs, Application Settings, Features, User Settings (with "User Roles" selected), Display Board, DataBase Backup Configuration, Services Info, DBSchedulers, Stack, TestForm, and UtilitiesServiceSettings. The central area has two windows: "UserRoles Info" (a grid view showing three rows of data with columns Id, RoleName, LoweredRoleName, and Description) and "DetailWindow" (a form view for "User Roles Details" with fields for Role Name, Lowered Role Name, and Description, and buttons for SetRoleAuthentication, Add, Edit, and Delete). At the bottom, there is a status bar with "Status : PM-10 PM-2.5 NO NO2 NOx SO2 RF RH Temp WD WS O3 O2 THC CO" and a taskbar with various icons.

2. Role Authentications: List of all the features available in the application can be viewed and set permissions for the selected role. There is Add/Edit/Delete/View options for each and every feature, user could set permissions for the features by setting on/off to the corresponding Add/Edit/Delete/View check box's. Based on the selection, AuthenticationType is generated automatically as follows: Add – C; View – R; Edit – U; Delete – D.



The screenshot shows a Windows application window titled "RoleAuthenticationSettings". At the top, there is a button labeled "Edit Authentication Settings". Below the title bar are two tables, each with columns: MenuItemId, Description, Add, Edit, Delete, View, and AuthenticationType.

Top Table Data:

MenuItemId	Description	Add	Edit	Delete	View	AuthenticationType
1	Company	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
2	Station	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
3	Parameter	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
4	Current Parameters Dashboard	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
5	Online Dashboard	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
15	Application Settings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	R
16	Analyzer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
17	Board Conversion Factor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
18	Monitoring Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
19	Parameter Type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
20	Alarms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
21	Parameter Order Settings	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
22	Config Settings	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
23	Email Settings	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
24	Features	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	R
25	Email Configuration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
26	SMS Configuration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
27	APPCB File Configuration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD

Bottom Table Data:

MenuItemId	Description	Add	Edit	Delete	View	AuthenticationType
6	Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	R
7	Data Report	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
8	Diurnal Report	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
9	Pivot Report	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
10	Graphs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	R
11	History Trends	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD
12	OnLine Graph	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	CRUD

If all are set to ON, authentication type will be “CRUD”. Click “Edit Authentication Settings” button to modify the settings and Save the changes to apply the features for the role.

3. Application Users: Application users can be created using this screen, the basic information of the user is captured here like, First and Last name, Contact No and Role Id. RoleId is used to set the privileges to the user for the application. The features that are set to the selected role will only be applied to the user.



SWANDashBoard

System Settings Application Settings Reports Graphs Dashboard Change Password Reset Logout Themes Default

MenuWindow

- Company
- Station
- Parameter
- Current Parameters Dashboard
- Online Dashboard
- Reports
- Graphs
- Application Settings
- Features
- User Settings
 - Application Users
 - User Roles
 - Display Board
 - Database Backup Configuration
 - Services Info
 - DBSchedulers
 - Stack
 - TestForm
 - UtilitiesServiceSettings

ApplicationUsersInfo

UserName	FirstName	LastName	ModifiedDate	ModifiedBy	UserRoleName
Admin	1	1	6/12/2012 3:15:30 PM	Administrator	Admin

DetailWindow

Application User Details Description

User Name: Admin Password: *****

Designation: 8980 Last Activity Date: 14 Dec 2011 12:48:59

First Name: 1 Last Name: 1

Phone1: 2 Phone2: 4546

User Role Id: Admin

- Admin
- Manager
- SeniorManager

Is Anonymous

Status: PM-10 | PM-2.5 | NO | NO2 | NOx | SO2 | RF | RH | Temp | WD | WS | O3 | O2 | THC | CO

7:37 PM
6/30/2014

The screenshot displays the SWANDashBoard application interface. On the left, a sidebar titled 'MenuWindow' lists various system settings and features, with 'Application Users' currently selected. The main workspace contains two windows: 'ApplicationUsersInfo' showing a single user record for 'Admin' with details like first name '1', last name '1', and modified date '6/12/2012 3:15:30 PM'; and 'DetailWindow' which is an edit form for the same user. The 'DetailWindow' form includes fields for User Name, Password, Designation, First Name, Last Name, Phone numbers, and User Role Id. A dropdown menu for 'User Role Id' is open, showing options: Admin, Manager, and SeniorManager. The status bar at the bottom provides real-time data for PM-10, PM-2.5, NO, NO2, NOx, SO2, RF, RH, Temp, WD, WS, O3, O2, THC, and CO levels, along with the current date and time (7:37 PM, 6/30/2014).