Envista
WEB Edition

Internet WEB Site System Prepared for National & Regional AQM Networks 4th Edition

Envista WEB is designed to allow you to publish your environmental data which has been captured using Envista ARM environmental data management software onto the World Wide Web.

Designed especially with the needs of public bodies and other agencies with a responsibility for environmental monitoring and reporting, Envista WEB provides a simple route to publication either to concerned citizens or within your organization through an Intranet.
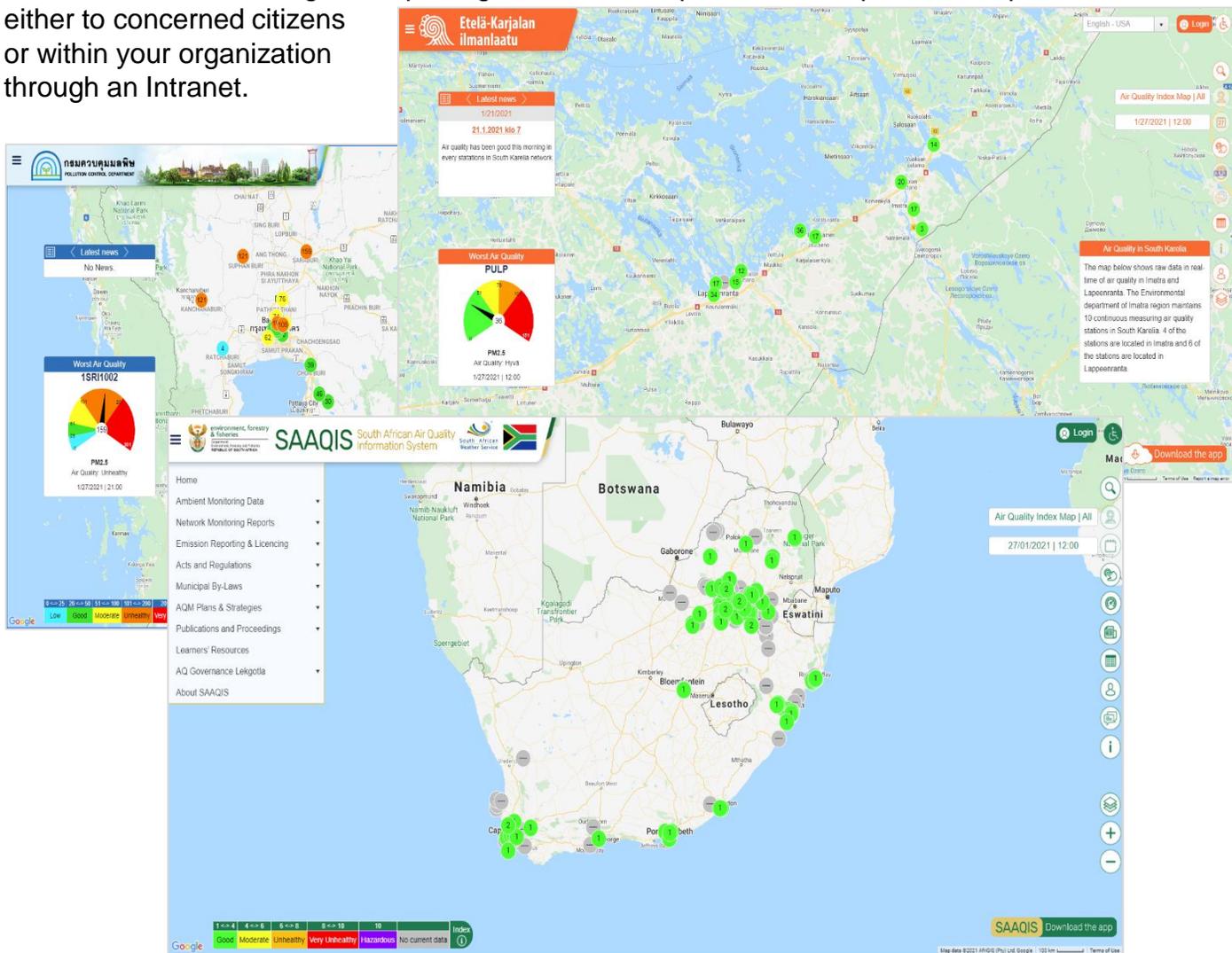

Figure 1 - Envista WEB Edition Overview

Web site visitors are presented with a map of your AQM stations, with Menu and Information Screens tailored to your choice of language. Header contains the site and organization title. The menu frame on top left, plus News and Index Gauge below. All can be configured by the web site administrator. Other frames can be displayed like Network map, AQM Station Dashboards and Colorful Air Quality Isoplate Display.

Software Main Specifications & Features

- ❖ Microsoft ASP. Net, MVC and HTML 5, application for Windows Server 2016.
- ❖ Windows 2016/19, Linux and Solaris database servers.
- ❖ SQL Server 2016/17/19 or Oracle9i/10g/11g DB.
- ❖ Multithreaded communication with data loggers and instruments via TCPIP or HTTP/HTTPS (API and SOAP).
- ❖ Off the shelf Internet/Intranet web site.
- ❖ Multi-lingual design.
- ❖ Completely menu-driven and touch-driven.
- ❖ Designed for Regional and National/State AQM Network.
- ❖ Dynamic Tabular displays.
- ❖ GIS Navigation map (Google and ESRI API).
- ❖ Dynamic Station Dashboard (On Line Gauges).
- ❖ Data analysis and reporting.
- ❖ Download reports in Excel and PDF formats.
- ❖ General information screens.
- ❖ Download area of monthly and annual reports.
- ❖ Links to Environmental Monitoring and Information sites.
- ❖ Complete web based administration tools.
- ❖ Web Version for Mobile Devices..
- ❖ Android and iOS Applications Solutions with Full API Support.

GIS Navigation Map

Supports Google, ESRI and OpenStreetMap, displaying the entire area covered by the environmental monitoring stations, a variety of map layer types are supported, including our own Colored AQI Isoplate Layer.
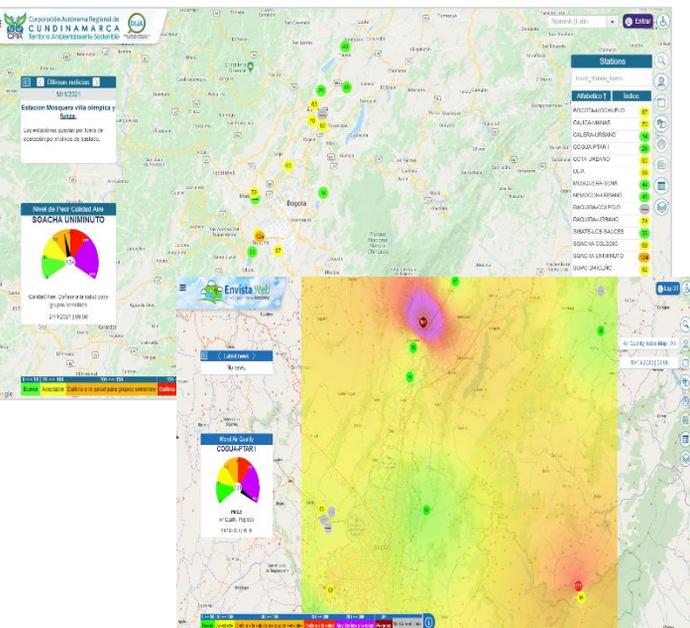

Figure 2 –GIS Navigation Map and AQI Layer

Clicking an 'Index-spot' will open a pop-up, an AQI chart screen will be displayed with AQI levels for today. By clicking on Go to Station Info, the display will switch to a site board for the selected station.
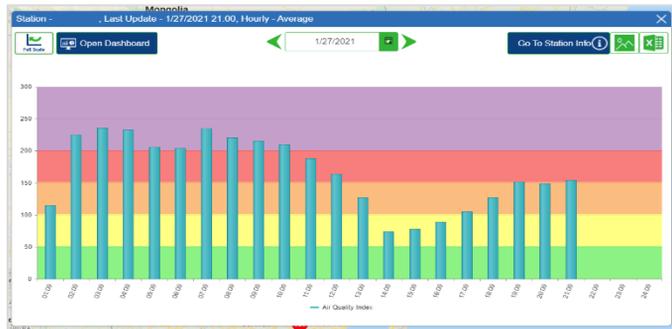

Figure 3- Parameter AQI Chart
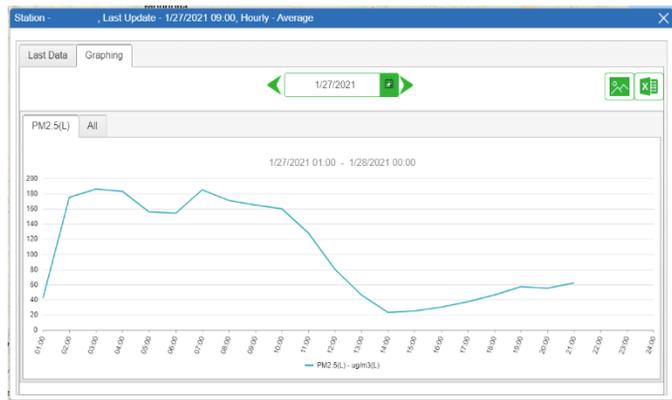
Figure 4- Site Info and Charts Board

Dynamic Displays
The following *Dynamic* displays are available:

- ❖ Tabular: Display current data for one or more stations in tabular format. Direct Station Dashboard access by pressing the station name.
- ❖ Station Dashboard: Current received data and Index Gauge display.
- ❖ Navigation GIS Map: GIS interface for Navigation purpose, current AQI status and Parameters values on Macro view.
  The User can control the map, its type and displayed layers.
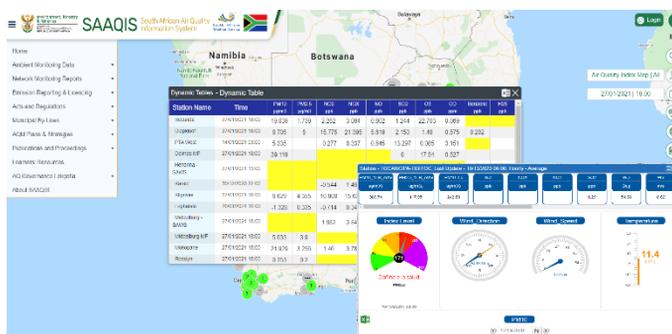
Figure 5 – Dynamic Tabular & Station Dashboard

Reports and Analysis

By using this feature, the user can produce text and graphical reports.

- ❖ Station Data Report –Standard tabular and graphical reports for Station values. Day, week, month and user defined (periodic) report intervals are supported. Stored data values may be averaged before being reported. Values reported may be filtered.
- ❖ Monthly Matrix - Monthly Summary by Hour and by Day
- ❖ nY Time Plot – n numbers of parameters plotted against time.
- ❖ XY Time Plot – Correlation between two parameters.
  Wind & Pollution Rose - Joined pollution concentration, wind direction and Speed relative frequency.
- ❖ Group - Report that reflects a group of monitors related to one or more stations as set up by the user.
- ❖ Histogram - The frequency of occurrence for various ranges of a monitor's value.
- ❖ Index - Performance of the Air Quality Indexes value for a station or several stations.
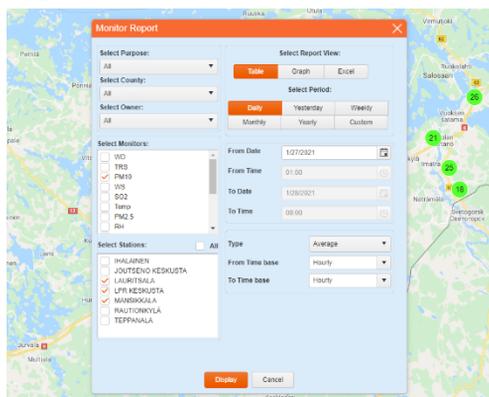
Figure 6 – Stations Monitor Report Dialog

Figure 7 – Station Textual and Chart Displays

The user can select the following *analysis* features:

- ❖ Analysis period of day, week, month, or year.
- ❖ Average Type Mean, Running, Running Forward, Maximum and Minimum.
- ❖ Data average interval of 1min,5min,6min,10min, 15min,30min,1hr,3hr,6hr,8hr,12hr, or 24hr.
- ❖ Output to display, printer, or file (XLS, PDF, JPG and PNG format).
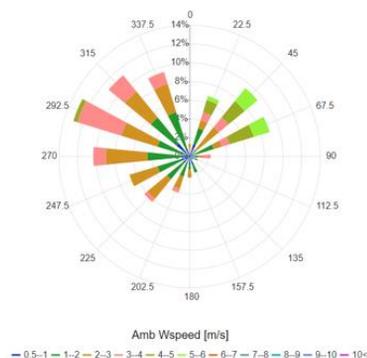
Figure 8 – Example for wind direction & speed relative frequency (Wind rose) on monthly time base

Files Management

The user can build files management menus by using the Administration tools.
Navigation between files type can be done from the main menu or from sub menu.

Figure 9 – Example of Files Management Displays

WEB Management Tools

Using some of the most advanced technologies available, the WEB Site is highly configurable and can be extended to integrate your existing AQM web sites and information from multiple systems into a single all-encompassing environmental monitoring system.
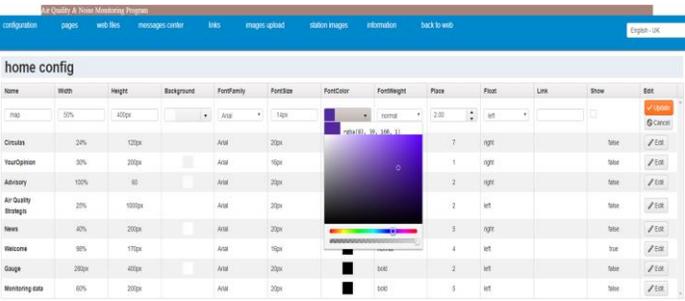
Figure 10– WEB Admin Home Page Edit

By using the Web Administration Tools the Administrator can setup the complete Web Site. The Following settings are available:

- ❖ Dynamic Tabular structure
- ❖ Pollutants Group settings
- ❖ Reports available for Public
- ❖ GIS Map settings and defaults
- ❖ Look & Feel – Colors, Fonts and background
- ❖ Languages Setup for the site
- ❖ News Messages add and delete
- ❖ Web Site Links
- ❖ Information Screens
- ❖ Insert files to the Publications area.
- ❖ Station Images
- ❖ Dashboards layout Design and connection
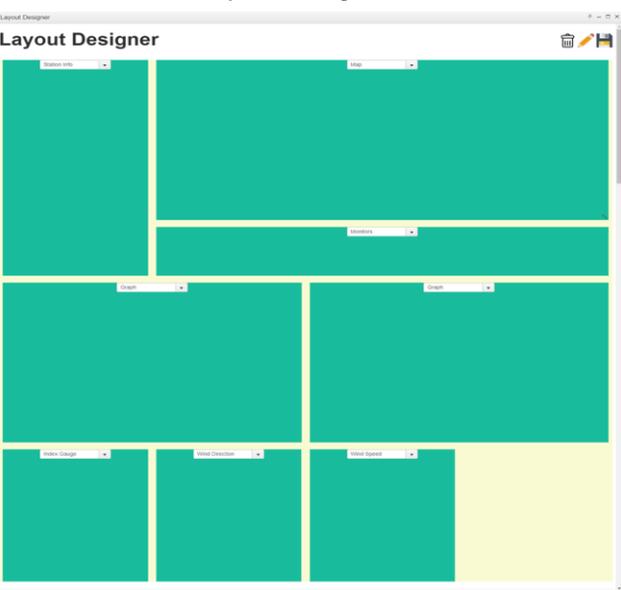
Figure 11– Dashboard Layout Designer
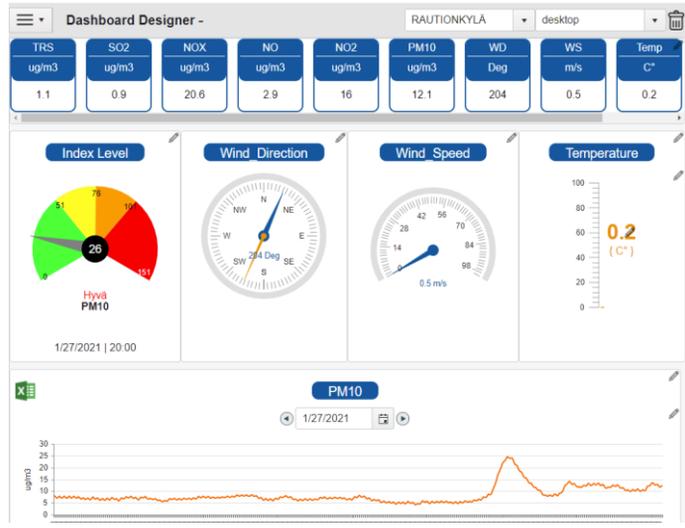
Figure 12– Dashboard Designer
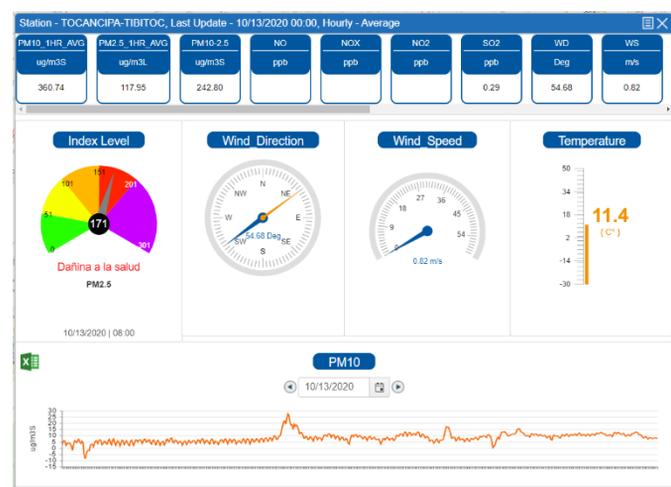
Figure 13– Deferent Dashboard Layout

Android and iOS Application Solutions

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