ADAPT

COOPER ENVIRONMENTAL

Automated Data Analysis Plotting Toolset

The Xact 625 continuously generates large amount of high quality metal dataset. Offline analysis of such datasets can be time and resource intensive process for the environmental agencies. Cooper Environmental is offering a hardware-software package, Automated Data Analysis Plotting Toolset (ADAPT), to manage and analyze Xact 625 measured metals in real-time through a number of relevant graphical tools.

The ADAPT package includes the hardware for on-site meteorological measurement and an intuitive software which is accessed through Xact 625 itself. The software platform generates multiple research-quality graphical reports to deliver unique insight on the temporal and variability trends of the metals. This intuitive toolset will allow the Xact users to make data-driven decisions towards efficiently managing metal emissions.

Features of ADAPT Reports

- Intuitive user interface to efficiently examine metals data on Xact 625
- Automated analysis of metals over user-selected time periods
- Temporal analysis to reveal peak concentration episodes
- Daily and time-of-day distributions to capture variability
- Correlation examination for identifying co-varying metals emissions
- Integration of meteorological parameters for gauging directions of metal sources

Graphics

ADAPT produces a variety of graphics to examine Xact-measured metals dataset collected over time and displays them through an intuitive user interface on the instrument. These plots allow the user to examine the metals contribution to each sample in addition to the concentration trends over time. The graphics are designed to track the high metals concentration events and capture the variability resulting from source emission patterns. Examination of metals in conjunction with on-site meteorological measurements enables ADAPT to provide improved directionality estimation of metal sources impacting the monitoring site. These report process the large quantity of metals datasets and save user's time and resources towards reaching their air quality objectives.

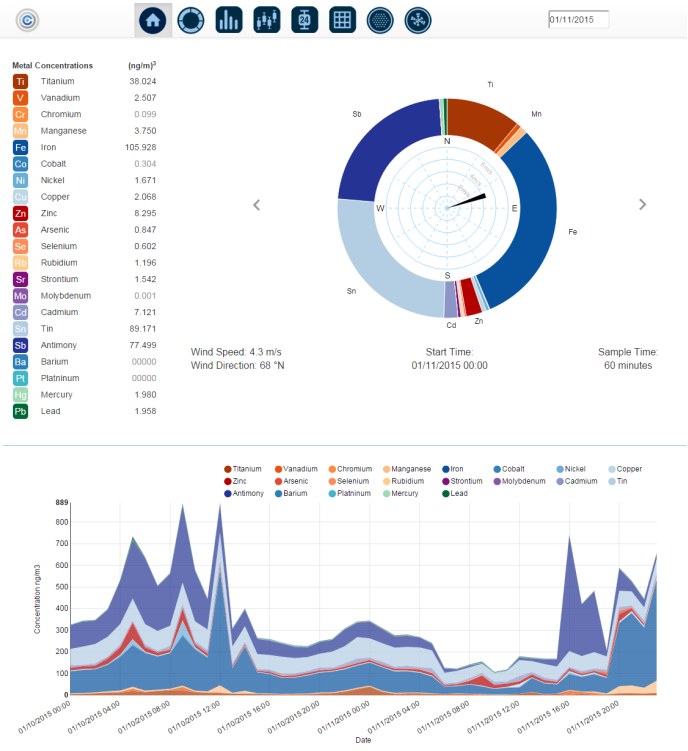
Intuitive design to view metals of choice

Select time period of interest from convenient calendar view

Includes statistical metrics for examining spread of concentrations

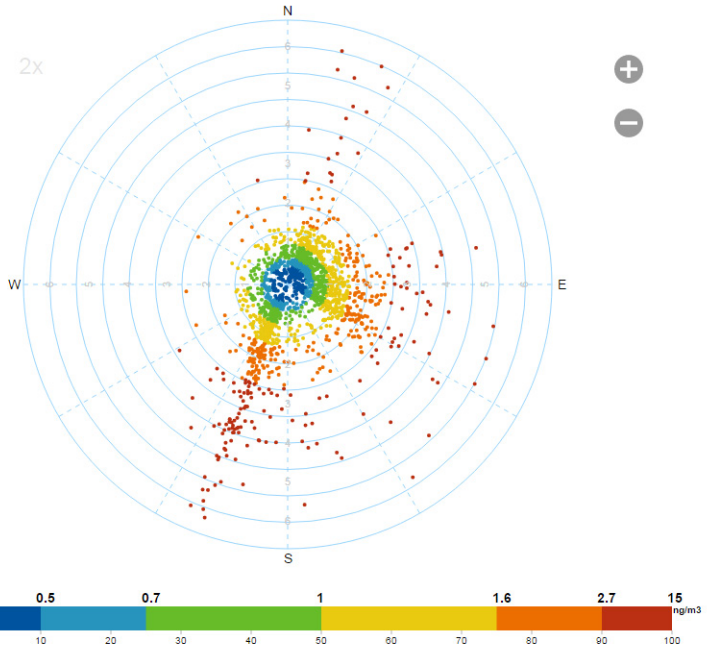
Download reports in PDF format

Home



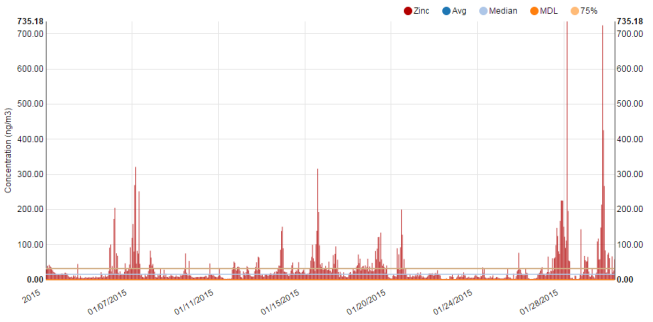
Meteorological Correlation

Association of metals with wind direction based on percentile ranges



Temporal

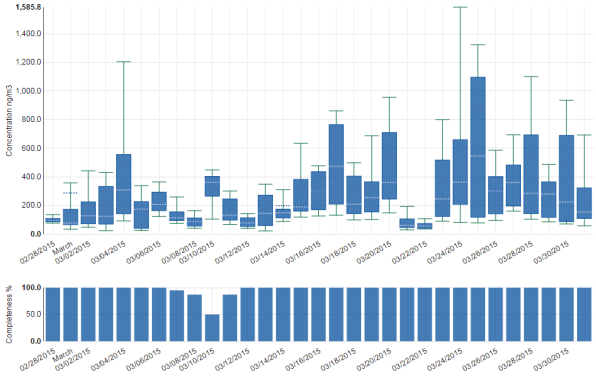
Trends in metal concentrations over time



		Counts		Concentration (ng/m^3)						
Z	Metal	< MDL	> MDL	MDL	Minimum	Maximum	Average	Median	75%	90%
30	Zn	0	660	0.23	1.177	735.179	32.101	15.174	31.802	70.096

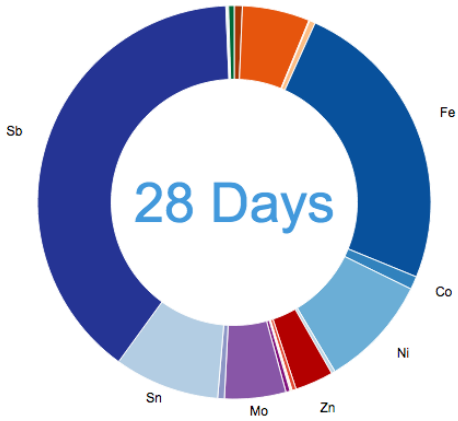
Daily

Daily distribution for examining day-of-week trends



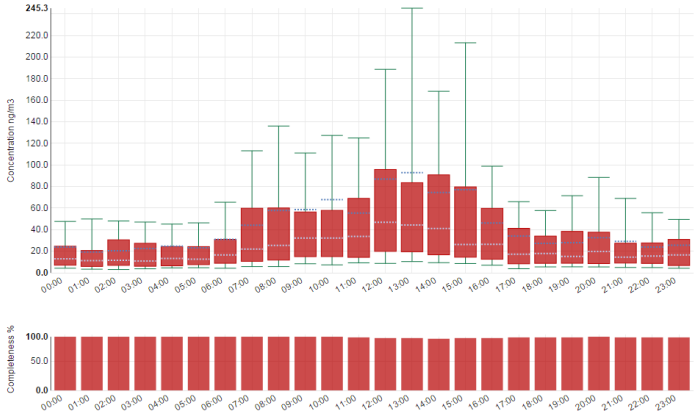
Average

Average concentrations over selected time period



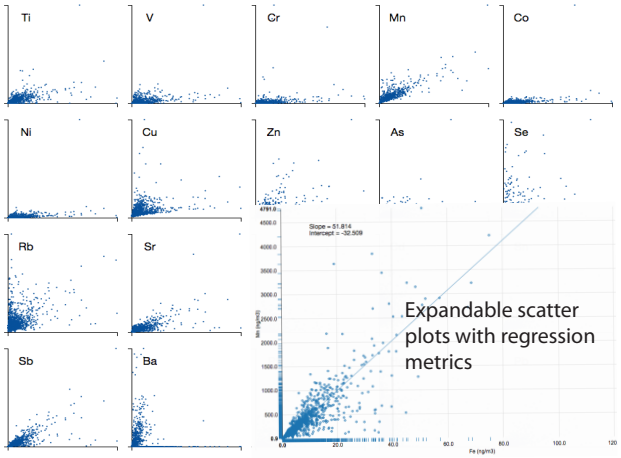
Time-of-Day

Variability across 24 hour duration examined for emission patterns



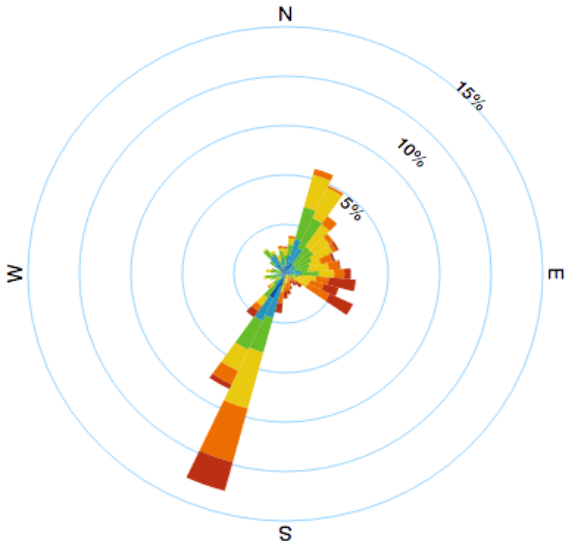
Correlation

Correlation between metals assessed simultaneously



Concentration Directionality

Frequency distribution of concentration ranges for identifying directions of peak metal impacts



Visit our website for a video demonstration of ADAPT.
www.cooperenvironmental.com

The ADAPT package supplements Xact 625 measurements to enable identification of trends and directionality of peak metal concentration episodes. The hardware components includes an ultrasonic wind sensor for on-site meteorological measurements along with an application server for accessing of the analysis software. The application server gathers meteorological parameters corresponding to the metals data acquired from Xact 625 in real-time. The analysis results are accessed through the Xact computer itself using a customized web browser provided on the application server. The intuitive and user-friendly interface allows for efficient exploration of the metals data to investigate source emission patterns captured by the Xact 625.

Xact 625

Ultrasonic Wind Sensor

Application Server

Xact 625 Computer

Benefits of ADAPT

- Graphical analysis reports generated in real time
- Results displayed with numerous research-quality graphics
- Data-driven support for monitoring the efficacy of control strategies
- Cost effective resource for minimizing data processing time
- Beneficial for air quality managers and environmental agencies
- Designed by air quality researchers with over 50 years of combined experience

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